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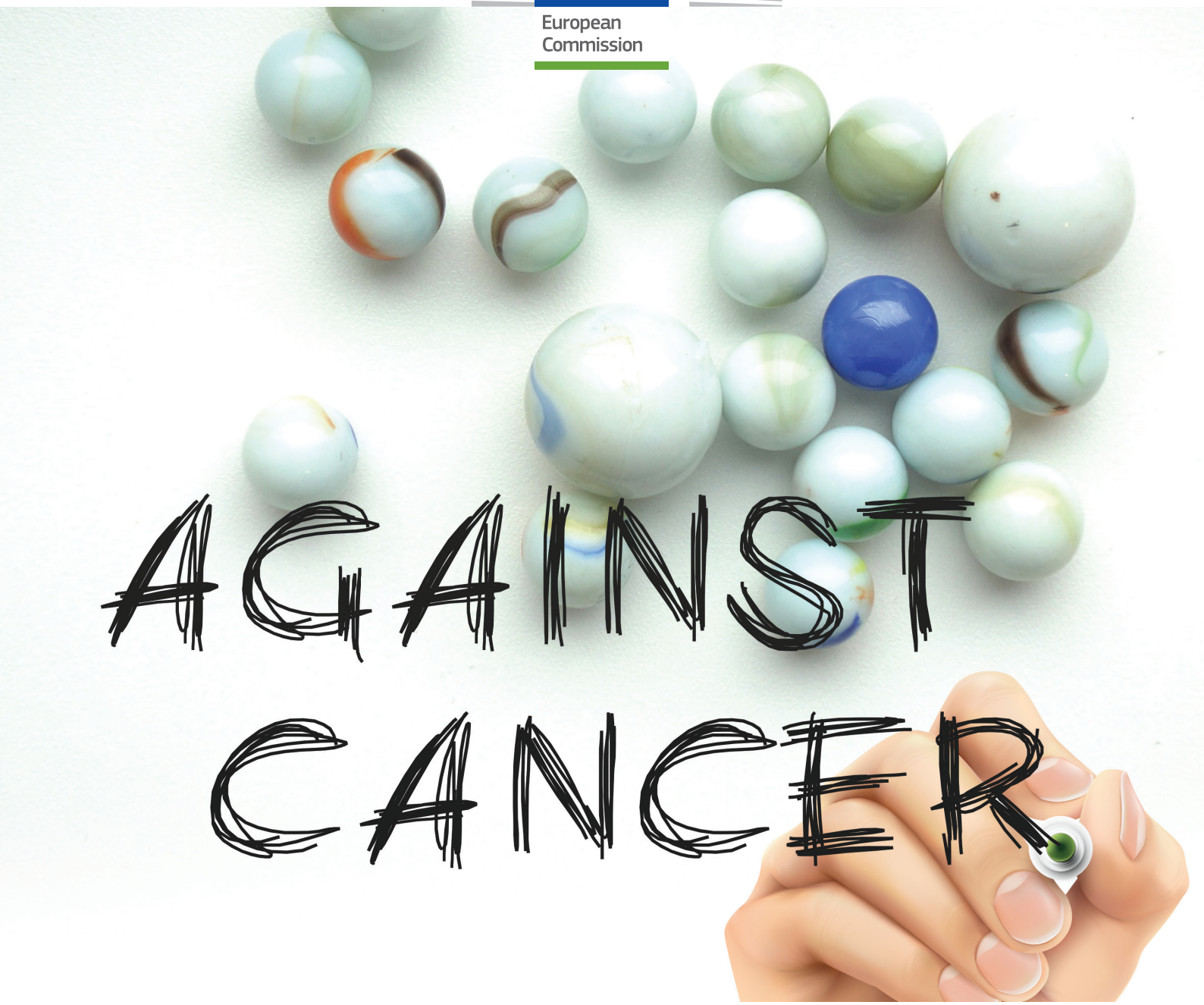

Cancer Screening in the European Union (2017)

Report on the implementation of the Council Recommendation on cancer screening

Health and Food Safety

Cancer Screening in the European Union

Report on the implementation of the Council Recommendation on cancer screening

Reprint May 2017

Prepared by

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Financial support was provided by the European Union Public Health Programme (**Scientific and technical support to the European Partnership for Action against Cancer and follow-up of the implementation of the Council Recommendation on Cancer Screening (IARC_SCR) with financial support from grant agreement No. 2011 5303**).

Special thanks are due to the staff of the International Agency for Research on Cancer (IARC) in the Sections of Early Detection and Prevention and Cancer Surveillance who provided technical and editorial assistance.

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Reviewers provided opinions on the draft report and these were considered, but not always incorporated, in producing the final report. Reviewers therefore bear no responsibility for the final text.

Minor pertinent interests are not listed and include stock valued at no more than US$ 10 000 overall, grants that provide no more than 5% of the research budget of the expert's organization and that do not support the expert's research or position, and consulting or speaking on matters not before a court or government agency that does not exceed 2% of total professional time or compensation. All grants that support the expert's research or position and all consulting or speaking on behalf of an interested party on matters before a court or government agency are listed as significant pertinent interests.

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Foreword

Cancer is a fierce public health enemy: in 2012 almost 1.3 million lives were lost to it in Europe alone. Nearly half of cancer deaths can be avoided with more preventive action to address and mitigate the risks. While we aim to reduce the incidence of cancer by tackling major life-style determinants, such as smoking, nutrition and physical activity, screening remains a very effective prevention tool. Regular and systematic examinations can detect the disease early, when it is more responsive to less aggressive treatment. Followed by appropriate care, these examinations can significantly reduce cancer mortality and improve the quality of life of cancer patients.

Already in 2003, the Council of the European Union had issued recommendations setting out principles of best practice in the early detection of cancer. The recommendations called on all EU countries to take common action to implement national, population-based screening programmes for breast, cervical and colorectal cancer. A first report analysing the state of implementation followed in 2008 and showed that, despite progress being made, Member States still had fallen short of the target set for the minimum number of examinations by more than 50%.

I am, therefore, very pleased to announce the publication of the second report on the implementation of the Council recommendations on cancer screening. The report has been supported by the European Commission and prepared by the International Agency for Research on Cancer, with the collaboration of the CPO Piemonte in Italy and the Finnish Cancer Registry. It presents the state of play of screening of breast, cervical and colorectal cancer in the 28 EU countries. New indicators such as the ones on performance of cancer screening programmes have been added. These indicators include population coverage, acceptance of diagnostic tests and treatment, detection rates and the predictive values of the tests. The report allows the comparison of the national programmes by these indicators and may eventually pave the way to define common benchmarks for cancer screening programmes in the EU.

Besides the devastating tragedy cancer is at individual level, we must keep in mind that the combination of an aging population and the rising costs of cancer treatments is stretching health care budgets of even the richest countries. Promoting health and prevention are cost-effective public health measures to identify new cancer cases in the early stages of development and to reduce both the risk of cancer and – this goes hand-in-hand - the burden on national health budgets. The European Commission has recently kicked-off the State of Health in the EU cycle to support the EU Member States in making their health systems more effective, accessible and resilient – so that prevention starts playing a major role and people have optimal healthcare options.

I expect this edition to provide Member States with a reference tool to help them in their decision-making process and in implementing the Council recommendations on cancer screening in the EU. The Commission is doing its utmost to help – our 2014 Communication[1] on the fight against cancer estimated that well over 500 million screening examinations for breast, cervical and/or colorectal cancer will have been performed in publicly mandated programmes in the EU between 2010 and 2020. European Guidelines for quality assurance in screening and diagnosis have been

[1] https://ec.europa.eu/health/sites/health/files/major_chronic_diseases/docs/2nd_implreport_cancerscreening_co_eppac_en.pdf

produced for breast cancer (2006, supplements 2013), cervical cancer (2008, second edition 2014) and colorectal cancer (2010).

I would like to acknowledge the more than 100 members in the Working Group that produced the report, including the authors, the experts and reviewers of the Scientific Committee and the data providers from the 28 EU Member States. We are still aiming to reduce cancer incidence by 15% by 2020 in the EU and I welcome the valuable contribution this report is making to that end.

Xavier Prats Monné,
Director-general for Health and Food Safety, European Commission

Preface

The second report on the status of implementation of cancer screening programmes in the European Union reflects the extent of organization, the performance and the quality of the screening programmes currently ongoing or being established in the member states. The report demonstrates the substantial progress made by member states to ensure access to organized, quality-assured screening for breast, cervical and colorectal cancers since the publication of the first report nearly 10 years earlier. The participation of all the 28 member states in the preparation of the report, the sharing of qualitative information and quantitative data by a large number of highly proficient data providers and the subsequent validation of the analyzed data by those same providers ensures the report is both reliable and informative.

According to the estimates of the International Agency for Research on Cancer (IARC) in the year 2012, cancer was responsible for 1.26 million deaths in the 28 EU member states with breast cancer alone causing 91,500 deaths. Colorectal and cervical cancer were responsible for an additional 152,000 and 13,000 deaths respectively in the same year. There are also significant differences in mortality rates between countries for these same cancers. There is ample evidence that systematic screening of eligible men and women through quality-assured population-based programmes could reduce the incidence (of cervical and colorectal cancers) and mortality from each of these cancers. Nevertheless, disparities exist between the Member States in terms of the status of implementation and the extent to which screening programmes are organized. The present report highlights those discrepancies with the purpose of improving performance across the full gradient of current levels of implementation.

The recommendations from the European Council in 2003 were instrumental in ensuring that the vast majority of the men and women in the chosen target age ranges in the EU member states have access to organized screening for breast, cervical and colorectal cancers; a strategy which is supported by the European Code Against Cancer, published by IARC. According to the second report on the status of implementation of cancer screening programmes, population-based breast cancer screening programmes are ongoing, piloted or planned in 25 EU member states for nearly 95% of women in the chosen age group of 50-69 years. Cervical cancer screening programmes are ongoing, piloted or planned in 22 member states for approximately 72% of the women in the 30 to 59 year age group. The rapid progress in recent years for colorectal cancer screening has been truly remarkable with 23 member states already implementing or planning to introduce population based screening programmes for a population of 110 million men and women (72% of the total target population) in the 50-74 year age group.

The Director-General of WHO, Dr Margaret Chan has been oft-quoted as saying “what gets measured gets done”. A great additional value of the current report compared to the earlier one is that performance indicators could be estimated based on the data collected and compiled from most of the population-based programmes. In spite of the variability of the results, due to the differences in the underlying incidence of the disease and the screening protocols, it was possible to compute the invitation and examination coverage and other performance indicators for cancer screening in a harmonized manner and to examine the data by age groups and by initial or subsequent rounds of screening. The continued monitoring of the essential

parameters, identified in the report, is crucial to guide quality assurance of the programmes and to have common quality standards across the EU member states.

The second report brings into focus the fact that significant efforts need to be made by the member states to improve organization of their programmes to further increase the coverage as well as to improve the performance. The European guidelines for the quality assurance of the breast, cervical and colorectal cancer screening published with the scientific and technical inputs from IARC provide the evidence-base to adopt new interventions and strategies to make the programmes more efficient. Adequate and sustained logistic and fiscal support backed by a strong political commitment are absolutely essential to ensure that the relatively inefficient and cost-ineffective opportunistic programmes are converted to population-based organized programmes to help reduce the burden of cancer currently falling on European citizens. Furthermore, the coverage of the existing programmes needs to be expanded to reduce inequalities in access and thus extend the benefits to the hard-to-reach groups within the whole population.

Cancer screening programmes are without doubt, complex and resource intensive; but implemented in the right manner they can render huge benefits and play their part in the wider context of cancer control. The European Commission has very pragmatically delineated a set of recommendations for the member states to pursue and act upon. A continued monitoring of the progress and regular feedback in the form of periodic reporting will ensure that the cancer screening programmes in the EU achieve the desired benefit in preventing premature deaths due to cancer.

Dr. Christopher P. Wild,
Director, International Agency for Research on Cancer

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Executive Summary

Background

Cancer is a major public health burden in the European Union (EU) Member States causing more than a million deaths every year. A large majority of these deaths are premature and can be prevented through appropriate primary and secondary prevention measures. One of the fruitful and cost-effective interventions is systematic population-based screening for breast, cervical and colorectal cancers, for which evidence-based, feasible and efficient screening strategies exist. The effectiveness and appropriate balances of health benefits and harm of these screening strategies to reduce mortality at the population level is well established through randomized controlled trials and observational studies.

The Health Ministers of the European Union unanimously adopted a set of recommendations on cancer screening on 2 December 2003. The Council Recommendation, in accordance with the European quality assurance guidelines for cancer screening, spelled the fundamental principles of the best practices in cancer screening and urged the Member States to take common actions to implement cancer screening programmes through a population-based approach with appropriate quality assurance at all levels. The Council also recommended preparing and submitting the status of implementation reports periodically to them.

The first report on the implementation of cancer screening in the EU highlighted the adoption of the Council recommendations and initiation/augmentation of the population-based cancer screening programmes by the majority of the Member States in 2007. According to the first report, population-based breast cancer screening programmes existed in 18 Member States (11 of them completed nationwide rollout), cervical cancer screening programmes in 17 Member States (7 of them completed nationwide rollout) and colorectal cancer screening programmes in 12 Member States (none of them could complete nationwide rollout). Even then, considerable amount of non-population based screening was ongoing in the EU targeting more than 100 million men and women. The report concluded that even though the number of individuals attending the cancer screening programmes in the EU were far from the desired level, the expenditure in human and financial resources was considerable and further expansion of the evidence-based screening strategies was required to close the gaps between and within the Member States.

The key objective of the second report on the implementation of the Council recommendations on cancer screening is to update and expand the scope of the first report in order to cover not only the status and organization of the population-based screening programmes, but also to estimate selected indicators of programme quality included in the European quality assurance guidelines for breast, cervical and colorectal cancer screening.

The second report on the status of implementation of the screening programmes in the EU reflects the achievements of the Member States in ensuring access to high-quality population-based screening since the publication of the last report. It also demonstrates the state of adoption of the recommendations of the European guidelines for quality assurance in breast, cervical and colorectal cancer screening, especially regarding the new screening technologies.

An important new feature of the second report has been to collect and collate quantitative programme performance data encompassing the complete process of screening, diagnosis and treatment from the EU Member States having population-based screening programmes. Collection of information in a unified manner enabled the authors to estimate the values of the main programme performance indicators at the regional or the national levels of the population-based programmes and also to arrive at pan-European Union average estimates that need to be monitored regularly at the national and European levels.

Methodology of the second report

The second report was prepared in a project coordinated by the International Agency for Research on Cancer (IARC) in Lyon, France and co-financed by the European Union Public Health Programme in the framework of the European Partnership for Action Against Cancer (EPAAC). The Centre for Epidemiology and Prevention in Oncology in Piemont (CPO) Turin, Italy, and the Cancer Society of Finland (CSF), Mass Screening Registry, Helsinki, Finland, collaborated with IARC to prepare the report.

A *Working Group* comprising of over 100 experts contributed to the preparation of the second report and the group included over 80 experts in the EU Member States who collected and submitted data from their respective countries. An advisory Scientific Committee of professionals highly experienced in implementation and quality assurance of population-based cancer screening programmes in Europe was also created to review the contents. Data on the qualitative aspects of the programme (nature and organization of the programme, protocol of screening and diagnosis, mode of invitation and recall, quality assurance practices etc.) were collected through web questionnaires filled up separately for breast, cervix and colorectal cancers by the data providers. The providers were requested to report the most current information available as on 1 July 2015; subsequent changes up to July 2016 were taken into account. The data providers had to fill up the data tables in excel format pre-designed to capture the quantitative information on the programme performance, separately for breast, cervix and colorectal cancer. The performance data collected in the excel tables was requested for the most recent year in which complete data was available, generally 2013. Countries that do not have population-based programmes or have initiated the programme recently could not provide the quantitative data and could not fill up the data tables. All the data collection tools were made available to the data providers through a website designed and maintained by CPO, Turin.

The analysis and interpretation of the data were performed by all the authors and the analysed data were shared with the data providers and the scientific committee to review before finalization.

Key findings of the report

Programme implementation and organization status

Overall the responses were received from all the 28 EU Member States. The data providers from Bulgaria filled up only the questionnaire for breast cancer screening and those from Greece did not fill up any of the questionnaires. However they sent information to the project secretariat through e-mails.

All the EU Member States except Bulgaria, Greece and Slovak Republic have population-based breast cancer screening programmes. Bulgaria conducted a pilot project that was completed in 2014. Mammography is the screening test used by all the population-based programmes and digital mammography has completely replaced film-screen mammography in 64% (16/25) of them. The target population is women in the age group of 50-69 years for the majority of the programmes (16/25; 64.0%). The interval between two rounds of screening is 2 years for most of the countries; only Malta and United Kingdom follow 3 years interval. Most of the Member States follow the recommendations of the European guidelines to ensure high participation (systematic written invitation of the eligible women with pre-fixed appointment, functioning screening registries etc.) and appropriate quality assurance (a team responsible for quality assurance, linkage between the screening and cancer registries etc.), though there is still room for improvement in these respects in many programmes.

The approach to the implementation of cervical cancer screening is more variable across the Member States compared to breast cancer screening. Population-based cervical cancer screening programmes exist in 22 Member States either nationally or regionally; and these include Germany and Slovak Republic that have taken steps to implement nationwide population-based programmes in the year 2016. As per the recommendations of the European guidelines most countries have stopped cervical screening prior to 25 years of age and have raised the screening intervals to 3-5 years. However, some heterogeneity still exists. Gradual introduction of the HPV test as the primary screening modality has been reported to be offered within organized screening in areas in Denmark, Finland, Italy, Sweden, Romania and Portugal. HPV-based programmes in general start at a later age and the test is performed at 5 years interval (though the 3 years interval is retained for the women below 50 years of age in some countries like Sweden). The different components of organized screening are generally integrated in the programme though few Member States are deficient is some of the key components like written invitation to all eligible women with pre-fixed appointment, linkage of screening registry with the cancer registry and periodic audit of the incident cancer cases.

A substantial progress has been made in colorectal cancer screening in the EU countries since the last report was published. Population-based screening programmes have been implemented nationally or regionally in 20 member states and the majority of them have completed the rollout. Estonia initiated a population-based pilot screening programme in 2016 with a plan to expand nation-wide. Non population-based programmes are ongoing in 3 member states (Germany, Greece and Latvia), one of them (Germany) is now planning to start a population based programme; additionally Luxemburg is planning to start population-based programme in 2016. Immuno-chemical fecal occult blood test (iFOBT or FIT) has been adopted as the most common screening test in the EU because of its higher sensitivity and logistic advantages over the guaiac-based fecal occult blood test (gFOBT). Endoscopy as a screening test is also being adopted in some member states. A strategy based on the sequential offer of flexible sigmoidoscopy and FIT implemented in one region in Italy achieved a satisfactory participation rate. Most of the countries with population-based approach to colorectal screening also have high levels of programme organization.

Assessment of programme performance

The site-specific data on the programme performance were collected for the index year 2013 for most of the countries or regions having population-based programmes. The completeness of data collection across the different processes of screening, coverage by invitation and by examination, participation rate and other indicators for performance of the screening programmes were estimated based on the data provided. Mean values for these indicators for the EU Member States were also calculated wherever applicable.

Among the estimated 32 million female annual population in the age group of 50-69 years in the EU, nearly 25 million have been invited to mammography screening in the population-based programmes in the index year (coverage by invitation 78.9%) and 16 million have been screened in these programmes (coverage by examination 49.2%). This is a significant improvement over the estimated 14 million eligible women receiving invitation and 9.2 million women screened for breast cancer in the year 2007. Among the women (between 50-69 years) invited, 60.2% participated in screening though the participation rates among the Member States varied between 6.2% and 83.5%. The mean treatment referral rate in 50-69 years age group was 7.1/1000 women screened (range across Member States 2.3 – 12.2) and the mean detection rate of any malignancies (carcinoma in situ and invasive cancer) was 6.2 per 1000 (range 2.3 - 10.2) women screened. The positive predictive value (PPV) of mammography to detect any malignancies was 12.2% (range 4.4 - 27.9) in the specified age

group. All these values separately calculated for the initial and the subsequent screening rounds by different age groups have been included in the report.

The quantitative information received from 19 of the countries having population-based cervical cancer screening programmes shows that 59.2% (range 7.3 – 100.0) of the annual target women aged 30-59 years (the minimum age group targeted in the EU countries) were invited for screening and 53.2% (range 23.9 – 86.7) were tested in the index years. The mean participation rate to screening in the 30-59 years age group in the countries providing data was 50.7% (range 11.6 – 67.7). Among the other parameters of quality assessment the mean colposcopy referral rate in the 30-59 year old women (excluding Hungary where colposcopy is widely used for primary screening) was 2.1% (range 0.9 - 3.8). In the age range of 30-59 years the overall detection rate of CIN 2 or worse lesions was 4.4/1000 screened women (range 2.0 - 10.1) and the PPV of referral to colposcopy to detect CIN 2+ disease was 33.8% (range 30.1 - 63.4).

The quantitative performance data shared by 17 of the 23 countries having, at the time of data collection, population-based (15/19), or non-population based (2/4) colorectal cancer screening programmes in the index year of reporting (Czech republic started a population based programme in 2014 and the quantitative data are referring to the opportunistic programme ongoing in 2013) show wide variability across the member states. The estimated coverage by invitation and by examination of the annualized EU population aged 50 to 74 years for colorectal cancer screening were 32.6% (range 1.4 – 112.1) and 14.0% (range 0.5 - 64.6) respectively. The values of the other performance indicators differed with the target age, screening tests used and also the threshold of positivity used by the programmes. All these values separately calculated for screening tests, initial and the subsequent screening rounds (whenever relevant), by gender and age group have been included in the report. The overall screen positivity rate in the EU was 2.2% (range 1.8 - 4.1) for gFOBT and 6.2% (range 3.3 - 9.8) for FIT. The detection rate to diagnose the colorectal cancers was higher with FIT (2.0/1000 screened men/women; range 1.2 - 4.9) than with gFOBT (1.2/1000 screened men/women; range 0.9 - 1.9). The PPV for the detection of colorectal cancer was higher with gFOBT (mean 6.7%; range 3.3 - 8.6) than for FIT (mean 4.4%; range 3.0 - 7.8).

The report indicated that there are shortcomings still e.g. in the data items available in screening registers and related regular monitoring information.

Conclusions

EU Member States have adopted significant measures to deliver cancer screening services to their respective populations as per the European Council recommendation. The second report has not only highlighted the status of the screening programmes and the volume of screening ongoing in the EU Member States but also have identified a set of essential indicators that need to be continuously monitored to ensure quality improvement. This would probably prove useful in gradually extending the programme coverage, improving the data quality and offering a basis for networking and enhancing screening effectiveness in the EU. In addition, it will be of immense value if future reports reflect stage distribution of cancers. This would require the population-based cancer registries to collect stage information for breast, cervix and colorectal cancers according to the widely accepted stage classification schemes (e.g., the UICC stage groupings) and an efficient linkage between cancer registries and screening programme databases. This could be challenging but efforts need to be initiated at the earliest possibility to exploit the potential of stage distribution information as an intermediate indicator of screening effectiveness and quality of life. There is a great scope of improving the quality of data by the introduction of robust health information systems linking the screening programmes with existing cancer and mortality registries. This would enable continuous quality improvement and evaluation of effectiveness and potential adverse

effects and harms of the services and this information should also be used as a basis for communication to the population and the stakeholders. Barriers to access to screening services by the population and also to deliver quality assured services were demonstrated. These barriers introduce serious inequities yet at the European level and active new interventions as well as research activities are needed in order to tackle these. In many countries delivering quality assured services in a population-based approach still need to be demonstrated through new public health initiatives. The services in a population oriented approach should be assessed and addressed through pragmatic public health initiatives in many countries.

Key Recommendations

- Screening monitoring should be continuous and the updating of the status report on cancer screening in EU should be periodic, at regular intervals. The report will be a valuable resource for the programme managers, the clinicians, the policy makers and the researchers.
- The data collection on cancer screening activities should be linked with the European Health Interview Survey (EUROSTAT-EHIS) and National Health Interview Surveys to obtain more precise information on attendance and intervals in spontaneous and organized screening settings.
- Efforts need to be made to ensure consistency and enhanced quality of the data collected for the screening reports. The inconsistencies existing for some indicators for breast, colorectal and cervical cancer screening should be investigated and steps should be taken at the country and EU levels to reduce unjustified differences.
- The reference standards for the quality and the process indicators of the screening programmes at the EU level should be developed and adopted, based on the achievable performances of well-established screening programmes, reported in the present document, and on the European guidelines on quality assurance in cancer screening and their future updates.
- The comparability of the data collected from the various programmes needs to be enhanced. To compare the coverage (by invitation and by examination) or the detection rates in different setting could be misleading unless due consideration is given to the different tests, screening intervals and target ages that different programmes may adopt and to the presence of opportunistic screening.
- Updating of the 2003 EU Council recommendations should be considered. New screening tests and protocols have been validated and introduced in the EU Member States. The European Code against Cancer (ECAC) updated in 2015 recommended the participation to organized screening programmes. The new evidence base needs to be considered.
- Population-based cancer registries should be strengthened in the countries already having population-based screening programmes or contemplating to introduce them. It will be of immense value if future reports reflect detection modes and stage distribution of cancers; such information can be obtained only through a well-organized cancer registry.
- Integration of the primary and secondary preventive strategies through comprehensive approaches is necessary not only to maximize the reduction in cancer burden but also to control the rising trend of other non-communicable diseases.

1. Introduction

1.1. Rationale for cancer screening in the European Union

Cancer is a major public health problem in the European Union (EU). The 28 Member States of the EU (EU28) with a total population of 504.6 million had 5.0 million deaths in 2012, of which more than one fourth were attributable to cancer.[1,2] Cancer is the second most common cause of deaths in the EU, next to the diseases of the circulatory system (cerebrovascular disease, ischemic heart disease and other heart diseases). In the year 2012, 29.2% of deaths among men and 22.5% of deaths among women were caused by cancer alone.[2]

Due to better population awareness, improved lifestyles and other risk-reduction interventions the number of deaths due to circulatory diseases was reduced by 9.7% between the years 2000 and 2010 in the EU Member States; unfortunately, the number of deaths due to cancer had gone up by 7.2% during the same period.[1] The estimated burden of cancer in the European Union in 2012 was 1.43 million new cases and 707,500 deaths in males and 1.2 million new cases and 554,900 deaths in females.[2]

Nearly half of the cancers in the European Union can be prevented through practices and actions targeted towards risk prevention and risk mitigation at the individual and population levels. The set of recommendations providing the advice to reduce the cancer risks at individual and population levels are listed in the recently published 'European Code Against Cancer'.[3] At the population level one of the major interventions to avoid premature deaths due to cancer is to ensure access to screening and early detection services linked with prompt treatment for some of the common cancers in men and women.

The population-based screening programmes, if organized properly, can be highly effective in reducing mortality from breast, cervical and colorectal cancers, as well as the incidence of cervical and colorectal cancers. It was estimated that a total of 256,670 men and women died of these three cancers in 2012 in the EU Member States (including Croatia), even though many of these early deaths were preventable.[2] Implementation of population-based organized screening programme with defined target population, screening interval, protocol of testing and follow up with comprehensive quality assurance at all levels will reduce the burden of these cancers in the EU. Some of the Member States have already demonstrated significant reductions in cancer-related mortality through well-organized population-based screening programmes. Achieving high coverage through improved access to quality screening services and ensuring appropriate treatment and follow up of the screen detected cases are key to the success of the cancer screening programmes.

1.2. Relevant cancer burden in the European Union

The Member States of the EU accounted for an estimated 2.6 million new cases of cancer (76% of the European total) and 1.26 million deaths from the disease (72% of the European total) in 2012. The most common cancers in males in the European Union are prostate cancer (European age standardized rate; E-ASR 110.8/100,000), lung cancer (E-ASR 66.3/100,000) and colorectal cancer (E-ASR 59.0/100,000).[4] The leading causes of cancer deaths in males are lung cancer (E-ASR 56.4/100,000), colorectal cancer (E-ASR 23.8/100,000) and prostate cancer (E-ASR 18.9/100,000).[4] The most common cancers in females in the European Union are breast cancer (E-ASR 108.8/100,000), colorectal cancer (E-ASR 36.1/100,000) and lung cancer (E-ASR 26.1/100,000).[4] The incidence of cervical

cancer is comparatively low in the EU (E-ASR 11.3/100,000) due to the effective implementation of cervical cancer screening, though there is a huge variation in the mortality rates from the disease across the Member States. Breast cancer, lung cancer and colorectal cancer are the three most common causes of cancer mortality of women in the EU with E-ASR of 22.4/100,000; 20.6/100,000 and 14.2/100,000 respectively.

There is disparity among the EU countries in the incidence and mortality rates of cervical cancers essentially because of variable access to quality assured screening programmes for this cancer.[5,6] Screening for breast cancer has also been demonstrated to reduce mortality from this disease. Evidence for this has been obtained from, among others, several European population-based screening programmes.[7] Colorectal cancer screening programmes have been introduced mainly after the EU Council recommendation in 2003; and until now there is no information available on the mortality outcomes except for the initial results from two pilot studies using the conventional guaiac-based faecal occult blood tests (gFOBT).[8,9] The European age-adjusted incidence and mortality rates of these common cancers in the EU Member States are listed in tables 1.1 and 1.2. The differences in the incidence rates of breast, cervical and colorectal cancers across the EU are shown in the figures 1.1.1, 1.2.1, 1.3.1 and 1.3.2. The mortality rates from these three cancer sites in the Member States are demonstrated in figures 1.1.2, 1.2.2, 1.3.3 and 1.3.4. The incidence of breast and colorectal cancers is likely to rise significantly in the EU countries in the next decade, mainly due to aging and increased life expectancy within the European populations. The projected increase in the number of new cases of breast, cervical and colorectal cancers are shown in figures 1.4.1, 1.4.2 and 1.4.3. Measures adopted to detect these cancers early and to improve access to good quality treatment will substantially reduce the demand on the already over-burdened health systems in the long run. Successful introduction of the Human Papillomavirus (HPV) vaccines in the national immunization programmes of the majority of the EU Member States is likely to reduce the cervical cancer incidences further within a few decades.

1.3. European Union policy on cancer screening

The European Council established implementation of screening programmes to reduce the burden of the common cancers as a priority for the Member States. The Health Ministers of the European Union unanimously adopted a set of recommendations for cancer screening and early detection on 2nd December 2003. The **Council Recommendation on cancer screening** specified the fundamental principles of best practice in the early detection of cancer and presented a shared commitment by the Member States to implement cancer screening programmes.[10] The Council laid down a comprehensive package of approximately 30 recommendations to the Member States on the implementation of national cancer screening programmes with a population-based approach and with appropriate quality assurance at all levels.

1.4. Scope of the second report

The first report on *Cancer Screening in the European Union* was prepared by the International Agency for Research on Cancer (IARC) and published in 2008.[11] The first report provided the scientific basis for the *Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions – Implementation of the Council Recommendation of 2 December 2003 on cancer screening (2003/878/EC)* that was subsequently prepared and published by the European Commission.[12] These reports have provided justification for a number of initiatives at the European level and in the EU Member States to expand and improve implementation

of population-based programmes for breast, cervical and colorectal cancer screening, such as conclusions of the Council, resolutions of the European Parliament and national laws and regulations.

The key objectives of this second report on the implementation of the Council recommendations on cancer screening are to update and expand the scope of the first report in order to cover both the status and organization of the screening programmes and also to calculate selected indicators of programme quality included in the *European quality assurance guidelines for breast, cervical and colorectal cancer screening.*[13-15]

The present report aims to reflect the status, possible improvements and changes in the cancer screening scenario eight years after publication of the first report. Many of the countries have shifted from non-population-based to population-based screening programmes in the intervening period. Some of the countries reporting ongoing rollout of screening programmes at the time of last report have completed their rollout phase. New evidence has been accumulated on the efficacy and health-economic aspects of new screening tests (full field digital mammography for breast cancer screening, HPV test for cervical cancer screening, fecal immunological test or endoscopy for colorectal screening) and the novel screening algorithms (use of cytology to triage HPV positive women). The updated guidelines and supplements for the quality assurance in breast, cervical and colorectal cancer screening have been published to improve the organization of the programmes, select the most appropriate screening tests and algorithms and introduce robust quality assurance. We expect that the adoption of these novel interventions will be reflected in the current report and also in the future.

The quality and the possible impact of a cancer screening programme are assessed on the basis of a set of performance indicators. These indicators include population coverage, acceptance of diagnostic tests and treatment, detection rates and the predictive values of the tests. For the second report on the status of implementation of cancer screening in the EU, data was requested from the EU countries with population-based cancer screening programmes to enable us estimate these indicators not only at the individual country levels but also as consolidated values for the EU. The present report allows the comparison of the national programmes by these indicators and may eventually pave the way to define common benchmarks for cancer screening programmes in the EU.

This second report is intended to provide the evidence base for policy-making and future improvements in reporting of the screening programmes, which should be conducted at regular and more frequent intervals. The report will also assist the European Commission in supporting the implementation of the best practices in cancer screening in the EU and minimize the current inequalities in implementation of cancer control among the Member States.

2. Methodology

2.1. Collaborators for the project

The Second Report on *Cancer Screening in the European Union* was prepared in a project coordinated by the International Agency for Research on Cancer (IARC) in Lyon, France, and was co-financed by the European Union Public Health Programme in the framework of the European Partnership for Action Against Cancer (EPAAC).[16] The same key centres experienced in monitoring and evaluating cancer screening programmes that collaborated with IARC in the preparation of the first report were involved in the preparation of the second report; these were the Centre for Epidemiology and Prevention in Oncology in Piemont (CPO), Turin, Italy, and the Cancer Society of Finland (CSF), Mass Screening Registry, Helsinki, Finland.

2.2. Focus on screening programmes

As with the first report, implementation data for the current report was collected on cancer screening performed in the framework of publicly mandated programmes; in such cases the eligible population, the screening test and the screening interval, as a minimum, are defined by laws, statues, regulations or official recommendations, and the costs of participating in screening are covered by public sources (government or publicly mandated health insurance), apart from a possible co-payment. Data on so-called opportunistic screening outside of any programme was not collected for this report. Sometimes it was not possible to differentiate the population-based programme data from the opportunistic programme data, where the programmes co-existed. Implementation data was collected for breast, cervical and colorectal cancers, since the Council recommendation included screening for only these cancers. Data on performance of cancer screening was collected mainly from mandated cancer screening registries for these three cancer sites, including in most cases data from only the organized, population-based cancer screening programmes. Data on opportunistic testing was available from only a few cervical cancer screening registers that had included all tests in the programme definitions and databases.

2.3. Working Group for the second report

The Working Group for the Second Report on Cancer Screening in the European Union consists of over 100 experts. The 15 authors of the report are well versed with the implementation of population-based cancer screening programmes in Europe and elsewhere. These authors have drafted and revised the report based on the data collected and comments on the draft report received from the other Members of the Working Group. These other Members include additional scientific and technical staff contributing to the project in the two collaborating institutions; over 80 data providers in the 28 EU Member States who collected and submitted data from their respective country that was used in the preparation of the report; and an advisory Scientific Committee of professionals highly experienced in the implementation and quality assurance of population-based cancer screening programmes in Europe. All working group Members filled in and submitted declarations of relevant interests, if any, according to standard IARC procedures. In addition to collaborating in reviewing the draft report, the Members of the Working Group were invited to attend a pan-European data providers' workshop held on 16-17 February 2016 at IARC. At that workshop the preliminary results of the project and the final steps in the preparation and revision of the second report were discussed. Altogether 60 Experts from 22 Member States and observers from the European Commission attended the workshop.

2.4. Selection of the data providers

Due to the inclusion of aggregated data used to generate key programme parameters and indicators, special knowledge and skills were required for accurate data compilation, calculation and interpretation. The data providers had to have access to the respective information in the Member States. Hence the data providers previously involved in the preparation of the first report, and to related projects involving monitoring and evaluation of cancer screening in the EU, particularly the European Network for Indicators on Cancer (EUNICE) project, were preferentially selected. The screening programme coordinators and/or senior scientists directly involved in programme monitoring and evaluation in their respective countries were also invited to participate in the project and provide data. Most of the contacted prospective data providers volunteered to participate in their suggested role. All data providers were requested to ensure that they had the mandate of the responsible authorities in their country to provide the requested information on the cancer screening programmes. To streamline communication and coordination, the number of data providers per country was kept to a minimum. In some cases, one data provider per type of screening programme (breast, cervical and colorectal) in the country as well as a coordinating expert participated.

2.5. Web-based data collection

Based on the experience of the collaborating centres in the preparation of the first report and in the EUNICE project,[12] web-based data collection instruments were developed for the second report by CPO in close collaboration with the project teams at IARC and Finnish Cancer Registry. A website was created and hosted by CPO and the website contained a set of questionnaires (one each for breast, cervical and colorectal cancer screening programmes), and standardized Excel tables for entry of aggregate performance data of the respective screening programmes. The questionnaires and the data tables were accompanied by a set of instructions and all the documents were in English. A snapshot of the website created to provide access to the data collection tools for all the data providers is shown in Figure 2.1. The questionnaires, the tables and the instructions for the data providers are included in the annexures (annexure 9.4)

The questionnaires and data tables were designed to collect information about implementation status and performance in each of the countries and also, when applicable, at a regional level.

2.6. Cancer screening implementation status

The questionnaires were filled in online by the data providers using country or region-specific login codes and passwords. The questionnaires followed the same generic format for all the three types of screening programmes; they requested detailed information on the following main topics on the implementation of cancer screening:

- Reporting country or region and period of data collection
- Details of the data provider
- Programme policy, organization and implementation status
- Programme administration and financing and institutional capacity
- Practice and quality control of data collection and analysis

- Practice of programme monitoring and reporting
- Screening protocol (invitation, testing, interval)
- Assessment of abnormalities detected in screening
- Post-treatment follow-up
- Monetary cost, cost-effectiveness studies, equity
- Ethical issues and studies on quality of life

The questionnaire forms are included in the annexure 9.4 Most of the answers in the questionnaires were pre-defined, but some questions also provided the opportunity to enter explanatory free text. Information was also requested about new screening protocols such as HPV testing for cervical cancer screening or flexible sigmoidoscopy for colorectal cancer screening.

The standardized performance data tables in Microsoft Excel on the selected sites (included in annexure 9.4) were downloaded by the respective data providers for offline data entry and subsequent submission via email to the project secretariat at IARC. Submitted data was checked and analysed by the project teams at IARC, CPO and Finnish Cancer Registry. Aggregate data stratified by age group, gender (where applicable) and the round of screening (initial or subsequent) was requested for the target population regarding number invited, number screened, number further assessed and the final diagnosis to estimate the performance parameters of the respective screening programmes. The Excel tables were preformatted and contained embedded algorithms for automatic generation of coverage and other key performance indicators from the data entered.

2.7. Performance indicators

Indicators, derived from the European quality assurance guidelines for breast, cervical and colorectal cancer screening, were generated for each of the following key steps in the screening process:

- Information and invitation of the target population
- Performing the screening test
- Assessment or follow-up of abnormalities detected
- Referral for diagnostic confirmation and treatment
- Treatment, if applicable

The performance parameters automatically generated by the data collection tables, in order to allow immediate checking by the data providers, included the following:

- Rate of coverage by invitation
- Rate of coverage by examination
- Participation rates
- Rates of referral to and compliance with further assessment
- Detection rates of cancer and other clinical outcomes specific to the three types of screening programmes (e.g. in situ breast cancers, cervical intraepithelial neoplasias, or colorectal adenomas).

To assess the quality of data management within the programme, the completeness of data collection related to screening and further investigations was also assessed. For the analysis and interpretation of the data collected, the performance parameters generated in the data tables were compared to some of the targets set in the European quality assurance guidelines and other standards.

2.8. Time reference

To ensure that the most current information was available for the questionnaire data on programme policies, procedures, organization, implementation status and quality assurance, the data providers were requested to describe the situation on 1 July 2015. Subsequent changes up to the end of July 2016 were taken into account, based on written documentation. To promote comparability, the programme performance data collected in the excel tables was requested for the most recent year in which complete data was routinely available in the respective country or region. In the majority of cases the index year of collection of programme performance data was 2013.

2.9. Collaboration with related projects

To avoid duplication of effort and minimize work for the data providers, the call for data for this second report was coordinated with related projects in Horizon 2020 and the EU Seventh Framework Programme led by Erasmus University, Rotterdam, The Netherlands, in the framework of EU-TOPIA (Towards Improved Screening for Breast, Cervical and colorectal cancer in All of Europe), and the Karolinska Institute, Stockholm, Sweden, in the framework of PreHdict/CoheaHr (Health-economic modelling of prevention strategies for HPV-related Diseases in European countries; Comparing health services interventions for the prevention of HPV-related cancer) projects. The information collected for the second report was also available to these projects subsequent to explicit approval by the data providers in the respective EU Member States; senior scientists involved in these projects also served on the Scientific Committee or as authors of the second report. Additional questions on costs of screening were included in the cervical screening questionnaire to facilitate collaboration with the PreHdict project.

2.10. Definitions of programme status

The Council of the European Union recommends implementation of cancer screening programmes using a systematic population-based approach with quality assurance at all appropriate levels. The Council Recommendation describes those elements which are considered essential to fulfil this global standard, but it does not provide definitions of terminology which could be used to compare differences between Member States in the degree to which screening programmes are implemented. For comparability with the first report and in order to assess changes in the implementation status of screening programmes over time, the present questionnaires used the same definitions employed in the preparation of the first report. In addition, the capacity of programmes to provide performance data and the internal consistency, plausibility and completeness of the data provided were taken into account in the interpretation of the data and the classification of programmes. The expanded scope of the data collected for the second report also made it possible to reflect the variation in the depth of organization of screening programmes across the EU.

As with the first report, a minimum degree of public responsibility, organization and supervision was essential for screening activities taking place in the context of a ‘programme’ as opposed to ‘non-programme’ screening. The authors of the present report also recognized that substantially more organisational elements are commonly regarded as essential in order to refer to screening activities as taking place in an ‘organized’ programme, and that differentiation between ‘organized’ and ‘unorganized’ screening programmes is, to a certain extent, arbitrary.

2.10.1.'Programme' vs. 'non-programme' screening

To qualify as a programme there should be a public screening policy documented in a law, or an official regulation, decision, directive or recommendation. The policy should define, as a minimum, the screening test, the examination intervals and the group of persons eligible to be screened; and the screening examinations should be financed by public sources (apart from a possible co-payment).

In many countries, an appreciable amount of non-programme examinations for early detection of cancer may also be performed in a diagnostic or clinical context, or performed often in a prophylactic purpose (commonly referred to as 'grey,' 'wild,' or 'opportunistic' testing). Such examinations may or may not be performed according to the public screening policy, if one exists. It is generally not possible to distinguish "wild" testing or examinations from solely diagnostic examinations in official statistics. For the purposes of the present report, 'wild' testing examinations are not considered to entail screening performed in the context of a programme. The same approach was taken in preparation of the first report.

2.10.2. Organized screening

'Organized' programmes for delivery of screening services generally require a higher degree of programme management than the minimum expected to distinguish between 'programme screening' as opposed to 'non-programme screening'. In an 'organized' programme, in addition to the targeted population group(s), the screening test and the screening interval(s), the programme policy and protocols specifying management procedures and indications for these are based on firm evidence on the effectiveness and appropriate balances between benefits and harm. The screening programme organization also requires a team at the national or regional level which is responsible for implementing the policy, i.e., for coordinating the delivery of the screening services, maintaining requisite quality, and reporting on performance and results. Such elements generally provide for supervision and monitoring of most steps in the screening process, as well as comprehensive guidelines and rules defining standard operating procedures. In addition, a quality assurance structure is required and a means of ascertaining the population burden of the disease should be available. In light of the importance of programme organization for effective quality assurance, data providers for the second report were encouraged to indicate whether programmes fulfilled the above minimal organizational criteria. Additional descriptive data on the level of programme organisation were also collected to illustrate the gradient of organization of screening programmes in the EU and complement the assessment of implementation status.

2.10.3. Population-based screening

As explained in the first report, screening programmes were considered to be population-based only if they reported that in each round of screening, the people in the eligible target population in the area served by a programme are individually identified and personally invited to attend screening.[13] Moreover, population-based screening programmes generally require a high degree of organisation in order to assure that the invitational activities are performed reliably and effectively and are adequately coordinated with the subsequent steps in the screening process. In cervical cancer screening, some programmes register any tests (also opportunistic) performed in the female population, in order to run similar systematic quality assurance activities for those tests and respective management as run for the invitational programme. In such settings the whole target population are personally identified using the regular intervals and the invitations will be performed only on those who had not

otherwise got the test. Also these programmes were included among the population-based programmes.

2.11. Estimation of national and EU target population by programme type and country implementation status

The present report differentiates between the Member States in which cancer screening programmes are lacking and those in which programmes have been or are currently being planned or implemented. Even in those Member States in which cancer screening programmes are lacking, substantial volumes of non-programme screening may be occurring.

Member States with cancer screening programmes are further differentiated as to whether the screening programmes are population-based or non-population-based. Furthermore, public policy may aim to implement screening nationwide or only in certain regions. Hence some Member States are documented as having regional implementation only.

Finally, in the case of population-based screening, nationwide or regional programme implementation may be in various stages of development: planning phase, pilot phase, rollout ongoing, or rollout complete (i.e. programme is fully established). For rollout to be considered complete at least 90% of the eligible target population in the respective region or country should have received at least one personal invitation to attend the screening programme, and all elements of the screening services should be fully functional (invitation, performance of the screening test, assessment of abnormalities detected in screening and treatment of cancers detected) in order to provide screening for every eligible person.

The national target populations and the total number of target population in the EU were estimated for breast cancer screening in the age groups recommended by the Council as the maximum age range (50-69 years); subject to national epidemiological evidence and prioritisation, smaller age ranges may be appropriate in Member States. The recommended maximum age range was adopted in most programmes; even though some programmes have targeted wider ranges, as information on the efficacy and effectiveness emerged and additional resources were available in their healthcare. The screening interval recommended is 2 or 3 years. For cervical cancer screening, the Council recommendations or the European guidelines do not recommend similar target age groups (as done for breast or colorectal cancer programmes). The guidelines summarise, however, the previous European recommendations that cervical cancer screening should start at age 25 or 30 and stop in those women who have negative results at age 64 or 69. There is variation in the target groups in the EU countries, due to variation in the background risk, too. In the current report, the same target age group (30 to 59 years) was chosen for cervical cancer screening as used in the first report. This age was adopted in all programmes as a minimum common target age and in addition many programmes had also wider groups targeted. The above recommendations are valid for cytology-based screening. For primary HPV screening, the starting age is recommended at 30 or 35 years, or more; and cytology screening can be initiated at an earlier age. The screening interval with cytology is recommended at 3-5 years with cytology, and 5 years or possibly more with primary HPV screening. The widest recommended age range (50-74 years) was used for colorectal cancer screening programmes with faecal blood testing, even though about half of the current programmes had targeted narrower age band, e.g. starting at age 55 or 60 years due to very low burden of mortality from colorectal cancers diagnosed in age 50 to 59 years; and stopping at age 70 year due to limited resource allocation. No details were available if a national prioritization

was done for those programmes targeting the age 50 to 74 years. The recommended screening interval for faecal occult blood tests is 1 or 2 years.

The target population was segregated by the programme type and the implementation status to arrive at an estimate of the total number of women having access to screening through population-based programmes. The population data were taken from the projection of EUROSTAT for the year 2016. Pre-invitation exclusions were not considered.

In some cases, implementation status may be mixed because the country is in a phase of transition from one type of programme to another (i.e., from non-population-based to population-based programmes) or because both types of programmes exist in various regions.

2.12. Responding Member States

Filled in questionnaires were obtained from 26 Member States for all the three sites by March 2016. (Table 2.1) The data providers from Bulgaria filled in only the breast cancer screening questionnaire. The data providers from Greece did not fill any of the questionnaires. However, the requisite information from the official sources through e-mails sent to the project secretariat was obtained from Bulgaria and Greece and utilised in this report as much as possible. The index years of reporting the programme performance data are listed by the Member States in table 2.2. Though a majority of the reports were based on the index years, some of the countries have reported from the years immediately preceding or following the specified index year.
The initial draft of the report, dated April 2016, was circulated to all the national data providers as provisional interim results. They were requested to check for the missing and/or inconsistent data from their respective programmes and revert back to the IARC secretariat within 4 weeks to suggest any corrections or modifications.
The version of the report dated July 2016 was sent to all the reviewers for their comments and suggestions before finalizing the report.

2.13. Data management and analysis

The questionnaires and the data-tables were carefully checked for inconsistencies and incompleteness by the authors of the present report. The data-providers were contacted to collect the missing data or to correct the apparent inconsistencies. The web-enabled database stopped collecting further data from 21 March 2016 for the interim report. The Centre for Epidemiology and Prevention in Oncology, CPO Piedmont, Turin generated analysable tables from the filled up questionnaires and analysed the data tables. These data were again checked by the authors to derive the qualitative information related to the national programmes and correctly estimate the programme coverage, data completeness and performance indicators. The final analysis was done after having solved inconsistencies and receiving the feedback from the participating countries and from the experts.

3. Implementation of the cancer screening programmes

The qualitative information related to the implementation status and organization of the screening programmes were obtained as filled-in questionnaires from all the Member States except Bulgaria (which provided a filled-in questionnaire for breast cancer screening only) and Greece. The information on the screening programmes in these two Member States were provided through e-mails by the responsible data providers. The index year for furnishing the qualitative information was 2015. However, all the data providers were given an opportunity to update the information until July 2016. Hence the qualitative data will reflect the status of the programmes in July 2016.

3.1. General information on the screening programmes

The information regarding the year of the initiation of a population-based cancer screening programme in the country, national target age for screening and the regular screening interval (e.g. for the screen negative population) were abstracted to the tables 3.1.1, 3.2.1 and 3.3.1 from the filled-in questionnaires for breast, cervical and colorectal screening. The tables also include information on non-population-based programmes in such areas or countries where population-based programmes were not in place. Some of the countries launched the population-based screening programmes recently and are still in the process of organizing some of the key components of organized programmes.

3.1.1. Breast cancer screening programmes

Out of the 28 Member States, 25 were planning, piloting or rolling out (ongoing or completed) population-based programmes. (Figure 3.1) Three Member States (Bulgaria, Greece and Slovakia) had only non-population-based programmes. Romania had only a small-scale pilot or demonstration project ongoing so that the majority of the potential target population was subject to non-population-based activity. Bulgaria had implemented a pilot project ('Stop and Get Screened') to provide breast, cervical and colorectal cancer screening using the population-based approach. The pilot project was completed in 2014 and at present the country has only a non-population-based screening programme.

Population-based, organized breast cancer screening programme in the EU was initiated early in Sweden (1986), Finland (1987), United Kingdom (1988) and the Netherlands (1989). Almost all the countries have completely replaced screen-film mammography with digital mammography as the method of screening. A target age wider than the maximum recommended target age for population-based screening of 50 to 69 years has been adopted by Austria, Czech Republic, France, Greece, Hungary, Italy, Netherlands, Portugal and Sweden. In Czech Republic whereas programme is open for examination to all women of 45 years and above, the invitation is only sent to the women up to 70 years of age. Only Estonia has a narrower target age range of 50 – 64 years. The screening interval is 2 years except for Malta and the United Kingdom (both 3 years).

3.1.2. Cervical cancer screening programmes

Out of the 28 Member States, 22 had planning, piloting or rollout ongoing or accomplished for population-based cervical cancer screening programmes. (Figure 3.2) Among them Germany adopted in the year 2013 the legal framework to convert the current non-population-based cervical screening (as well as the colorectal cancer screening) programme into a population-based one with setting up of screening registries linked to the cancer registries. The new programme is still in the planning phase. Slovak Republic has initiated

planning for population-based cervical cancer screening, even though only non-population-based service is available in 2016. Bulgaria completed the pilot project in 2014, and no population-based programme has been initiated till date. No programme was reported also for Cyprus. Non-population-based programmes were reported for Austria, Greece, Luxembourg and Spain. Ten Member States had their population-based cervical cancer screening programme still in the process of rolling out; these are Belgium, Croatia, Czech Republic, France, Hungary, Ireland, Italy, Lithuania, Portugal and Romania.

Some of the longest running population-based cervical cancer screening programmes in the world are in the EU countries e.g. Finland and Sweden. The countries having target age wider than the recommended age from 25 or 30 to 64 or 69 years in population based programmes are Czech Republic and Slovenia. In opportunistic testing, wider age groups recommended not to be included to cancer screening programmes were generally targeted. A narrower target age has been adopted in the population-based screening programmes by Estonia. HPV test as the primary screening test has been reported to be offered, at least by some programmes/areas in Denmark, Finland, Italy, and Sweden (as stand-alone screening test) Romania and Malta (in co-testing with cytology) and Portugal (both as stand alone and in co-testing). HPV-based programmes start in general at later age than cytology-based population-based screening programmes. The screening interval is 3 or 5 years for the population-based cytology screening programmes (except Czech Republic) and 5 years for the HPV based programmes. In non-population-based cytology testing the screening interval was often much shorter than the recommend interval of 3 or 5 years.

3.1.3. Colorectal cancer screening programmes

As of 2015, out of the 28 member states, 20 had piloting or rollout ongoing or rollout complete for population-based programmes; in addition three member states (Estonia, Germany and Luxembourg) were planning to start population-based programme in 2016. Three member states (Germany, Greece and Latvia) had only non-population-based programme, although Germany was planning to introduce a population-based programme in 2016, for which the legal framework was adopted in 2013. No programme had been initiated in the remaining three member states (Bulgaria, Romania and Slovak Republic). In two of the countries reporting population-based programme (Austria and Sweden) the screening activity was not yet covering the entire country, being limited to a single region. (Figure 3.3) In Belgium, two distinct regional screening programmes exist: one in the Wallonian-Brussels Region and the other in the Flemish Region. In Portugal population based programme is being implemented in two regions (Alentejo and Centro) and the roll out is ongoing. The population-based colorectal cancer screening programmes in the EU countries were mostly introduced after the Council recommendation was issued.

The widest recommended target age of 50 to 74 years has been adopted by the population-based programmes in Belgium (Wallonian-Brussels region), Croatia, Denmark, France, Lithuania, Portugal (Alentejo Region), Slovenia and UK (Scotland only). The target age is narrower in Belgium (Flemish region), Cyprus, Finland, Hungary, Ireland, Italy, Malta, Netherlands, Poland, Portugal (Centro region) Spain, Sweden and UK (England, Wales and Northern Ireland) while it is larger in Austria (age range 40-80 years) and Czech Republic (50+ years). In Czech Republic the invitation is only sent to the men and women up to 70 years of age though the more elderly persons can also participate. No information is available if the Member States had performed prioritization for the policy decision. The widest recommended target age of 50 to 74 years is adopted in non-population-based programmes in Germany and Latvia.

The screening interval for gFOBT/FIT programmes is 2 years in all the countries except Austria and Latvia where screening is done yearly. Within the non-population-based programmes, screening with colonoscopy is offered at 10 years interval in Austria, Czech Republic and Germany and at 5 years interval in Greece. Within population-based programmes, colonoscopy is offered once in a lifetime in Poland as it is the case for sigmoidoscopy in Italy and England.

The different screening tests used in the colorectal cancer screening programmes across different EU Member States are shown in Figure 3.4.

3.2. Information on the programme organization

Prerequisites for organized cancer screening are: a) An explicit policy either as a law or an official notification specifying the target population, screening tests and screening intervals; b) public funding (with or without co-payment by insurance) to ensure that there is no out of pocket expenditure for screening as well as diagnostic and treatment services; c) well-defined plan for inviting the eligible men and women; d) a management team responsible for programme implementation; e) a robust structure to ensure quality assurance. All these information related to the cancer screening programmes of the EU countries were collected and are listed in tables 3.1.1 to 3.3.2. The vast majority of the countries in the EU have public funded screening programmes, thus ensuring access to free screening and diagnostic tests. Almost all the countries with population-based screening programmes have teams responsible for implementation and quality assurance though many of them still do not have screening registries linked to the cancer and cause-of death registries that is a necessary condition to identify the cancer occurrence and deaths in the targeted population. The invitations to participate in the screening programmes are sent by specified organizations or by primary health care or by the general practitioners. A majority of the countries practice sending invitation letters with pre-fixed appointments or with faecal occult blood test kits for colorectal screening.

3.2.1. Breast cancer screening programmes

All the countries in the EU except Bulgaria, Croatia and Slovak Republic have national breast cancer screening policy mandated by a law or an official recommendation. There is no population-based breast cancer screening programme in Bulgaria, Greece and Slovak Republic. The screening programme is not supported by public fund in Luxembourg and only partially supported in Portugal. In all other EU countries the breast cancer screening programme is public funded. All the countries having screening programmes send written invitations to the eligible women through the screening registries except Lithuania, Portugal and Romania. In these countries the invitation letters are sent through the primary health care or through the general practitioners. Written consent for screening is required in Belgium, Croatia, Cyprus, Czech Republic, Hungary, Ireland, Italy, Lithuania, Netherlands, Poland, Portugal, Romania and Slovenia.

3.2.2. Cervical cancer screening programmes

A national cervical cancer screening policy mandated by law or official recommendation exists in all the Member States except in Bulgaria, Cyprus and Luxembourg. In addition to these three countries Austria, Greece and Spain do not have any population-based screening programme. The Cancer Screening and Register Act, 2013 in Germany created the legal framework to turn the current opportunistic screening programme for cervical cancer into organized, population-based programme. Also in the Flemish Region of Belgium, a new

screening programme was set up in 2013, inviting women aged 25-64 years without a Pap smear for a period longer than the recommended screening interval (3 years), as recorded in the cancer registry. All the other countries have public funded population-based screening programmes where screening tests are provided free of charges. All the countries having population-based programmes send written invitation to the eligible women through the screening registry except Lithuania, Portugal and Romania. In these countries the screening invitations are sent through the primary health care or through the general practitioners. In the Czech Republic, invitations are sent by the health insurance companies, which maintain the records of the screening history of the individuals. It should be noted that in countries inviting only women who do not participate spontaneously, response rates are lower than in countries inviting all women from the target age group, because in the former programmes focus on more difficult-to-reach women.

All the countries having population-based programmes have screening registries except Lithuania. Even among the countries with screening registry, the linkage with the cancer registry is missing in Croatia, the Czech Republic and Poland. Signed informed consent for cervical cancer screening is required in Ireland, Lithuania, the Netherlands, Poland and Portugal. The remaining countries obtain only verbal consent before performing the tests.

3.2.3. Colorectal cancer screening programmes

All the countries in EU except Bulgaria, Romania and the Slovak Republic have a colorectal cancer screening policy mandated by a law, or an official recommendation. The programme is public funded and tests are provided free of charge in all except Croatia, where the costs are reimbursed through the health insurance.

Population-based screening programmes have been implemented in 20 Member States (Austria, Belgium, Croatia, Cyprus, the Czech Republic, Denmark, Finland, France, Hungary, Ireland, Italy, Lithuania, Malta, the Netherlands, Poland, Portugal, Slovenia, Spain, Sweden and the UK). In these countries, written invitation letters are sent to all eligible men and women to participate in the screening programme through screening registries, except in Lithuania. Non-population-based screening programmes are running in Germany, Greece and Latvia. The population-based programmes are planned to start in the year 2016 in Estonia, Germany and Luxembourg.

Screening registries exist in all the countries having population-based programmes except Lithuania, though the linkage with cancer registry is not yet functional in Croatia, Cyprus, Czech Republic, Germany, Ireland and Sweden. Written informed consent is obtained prior to colorectal cancer screening in Belgium, Croatia, Cyprus, the Czech Republic (for endoscopy screening only), Hungary, Italy, Lithuania, Luxembourg, the Netherlands, Poland, Portugal and Slovenia.

3.3. Number of persons in the chosen target ages for cancer screening in the European Union

To indicate the extent to which screening programmes have been or currently are being implemented, piloted or planned, the numbers of persons and the respective proportions of the EU population in the chosen target age groups for screening are shown in tables 3.4. to 3.6. The data is broken down by the type of screening programme (population-based or non-population-based); whether or not the government policy aims for a nationwide or merely regional implementation; and in the case of population-based programmes the current phase of implementation (completed rollout, rollout ongoing, piloting or planning).

3.3.1. Number of women in the chosen target age for breast cancer screening

Nearly 67.5 million women residing in the EU are within the chosen target age for breast cancer screening, 50-69 years. Of these, 63.9 million (95%) currently reside in the 25 Member States that have implemented nationwide population-based breast cancer screening programmes or are piloting such programmes (Table 3.4.).

3.3.2. Number of women in the chosen target age for cervical cancer screening

Approximately 106.5 million women in the EU are in the age group of 30-59 years, which corresponds to the minimum age group for cervical cancer screening according to the various European recommendations. Nearly three-fourths of these women (77.0 million; 72%) reside in the 22 countries implementing, piloting or planning for population-based cervical cancer screening programmes. (Table 3.5.).

3.3.3. Number of men and women in the chosen target age for colorectal cancer screening

A substantial improvement has taken place in the implementation of colorectal cancer screening through population-based approach in the recent years. We estimated that out of nearly 152 million women and men in the age group of 50-74 years in the EU member states, 110 million (72%) are target by screening in those 23 Member States that have adopted at least some policies to implement, pilot or plan for population-based colorectal cancer screening programmes (Table 3.6.).

4. Performance of the cancer screening programmes

4.1 Breast cancer screening

Detailed and screening site-specific aggregate data collection tables (in excel format) were delivered to the 28 Member States, 25 (89%) of which returned at least some quantitative information on their population-based breast cancer screening programme, the only exceptions being Bulgaria (which however provided some aggregated data on their recently completed pilot project), Greece and the Slovak Republic that did not have a population-based programme. Seven Member States (Belgium, Cyprus, Italy, Portugal, Romania, Sweden, UK) provided all or part of the required data regionally, for a total of 27 Regions. The total number of areas analysed was therefore 45. The data call concerned the year 2013, and a majority of the data providers returned data from that index year. (Table 2.2)

4.1.1. Coverage by invitation and by examination

Coverage by invitation is defined as the proportion of the subjects in the target age range who received a screening invitation within the scheduled interval in the index year, over the total number of eligible subjects; while coverage by examination is the proportion of subjects in the target age range who had a screening test within the scheduled interval over the total number of subjects in the target population. The age range 50-69 years is the widest target age for breast cancer screening recommended by the European Council and is common to most of the European programmes, as shown in Table 4.1 with annotated exceptions based on national prioritization. The European annual target population for age 50-69 years (half of the total female population in that age, considering the screening interval of two years) is approximately 32 million. Of these women, about 25 million have been invited in 2013 (coverage by invitation 78.9%) and 16 million have been screened (coverage by examination 49.2%). Only the primary screening invitations in the index year were considered to compute the number invited. Reminders or invitations to follow-up testing were excluded (i.e., only one (first) invitation per screening round). The coverage by the breast cancer screening tests across different Member States is also shown in figure 4.1.

To enhance comparability of the results across the countries, we used the EUROSTAT figures for calculating the target populations for all the countries (or the regions whenever relevant). EUROSTAT 2013 was used for the responders providing data within the period 2012-2014.

The estimates presented do not take into account (relevant data were not collected) the impact of policies stipulating the exclusion from invitation of ineligible subjects in the target population. However, exclusion criteria are not standardised across the countries, they are dependent on organisational policies and their adoption has been criticised as often being based on inaccurate information. However, the adoption of the pre-invitation exclusion criteria (e.g. women in active follow up after breast cancer treatment or women in active surveillance for familial risk), if done with the necessary accuracy, can increase the appropriateness and the efficiency of the programme. The coverage of the countries doing this may have been under-estimated in this report.

Invitation coverage in 2013, among the Member States that issue invitations and excluding Romania, which is running a pilot project, ranged from 21% (Slovenia) to 100% (Belgium, Croatia, France, Ireland, Luxembourg, Poland and UK). It should be mentioned that, given a screening interval of two or three years, the measurement on a single year may be inaccurate, this being reflected by some Member States exceeding 100% invitation coverage.

Examination coverage ranged from 17% in Cyprus to 84% in the United Kingdom.

4.1.2. Participation rate

Participation rate in a breast cancer screening programme is defined as the percentage of women screened in a particular year out of the total number of women personally invited in that year. Results on participation rates are shown in Table 4.2 for age groups 50-69 years and also 45-49 years and 70-74 years, the latter for areas where they are relevant. Twenty-two Member States provided the information, 6 of which were by region. The participation rate in the EU (EU total) for the age group 50-69 years was 60.2% on almost 24 million total invitations, while the same for 45-49 years was 68.9% and for 70-74 years 60.4% on less than 1 million invitations each.

For women aged 50-69, the highest participation rate was in Denmark (83.5%) and the lowest was in Wallonia region of Belgium (6.2%). The average in the EU was below the standard 'acceptable level' that is 70%.[18] This indicates a need to further facilitate and encourage participation in order to enhance effectiveness and reduce the potential for health inequities at the pan-European level.

4.1.3. Completeness of information

Completeness of information describes the available data items from the screening registers through the entire process of cancer screening programmes, from identifying the target population for invitation to screening, examination, further assessment up to final diagnosis. The extent to which this information has been made available by Member States, or regions if the national data was not available, is illustrated in Table 4.3.

It should be taken into account that completeness is a function of time, so that the available information on year 2013 would have been more complete, especially for final diagnosis, if the initial data call was issued later than in summer 2015, and this also depends on the way and from which sources each Member State gathers the relevant information.

4.1.4. Screening performance indicators

These indicators, all based on the results of the screening tests, are described for the age groups 45-49 years, 50-69 years and 70-74 years by the member states or the regions. Furthermore it is well known that screening performance varies by previous screening history. To take this into account results are presented overall (Tables 4.4.1-4.4.9) and for the member states providing such data, stratified by initial (Tables 4.5.1-4.5.9) and subsequent (Tables 4.6.1-4.6.9) tests. Initial test results are usually considered unstable being based on smaller numbers or, in the case of a steady state programme (if the programme was run in the target population already for a long period of time) including mainly women invited in the lowest target age (e.g., at 50 years of age), and heavily influenced by the so called prevalent cases, while subsequent tests, especially if performed at regular intervals (data not available) are usually considered a better basis for the screening evaluation. Therefore, for the initial tests, in the text below the EU mean will be reported but not the range between the member states or the regions.

Furthermore, when comparing results of these indicators among different Member States or regions any confounding effect of differences in breast cancer incidence should be taken into consideration.

4.1.4.1. Further assessment rates

Of almost 15 million tests in the breast cancer screening programmes in the EU, the mean further assessment rate (overall) for the 50-69 year age group was 5.2% (range 1.6 - 11.8), while for the age groups 45-49 years and 70-74 years the corresponding figures were 8.6% and 5.7% respectively (Table 4.4.1). European standard for 'acceptable level' is <5% for the initial screening and <3% for subsequent screening. For the initial tests the further assessment rates for the age groups 50-69 years, 45-49 years and 70-74 years were 10.2% (range 2.9 - 19.8), 12.6% and 11.2% respectively (Table 4.5.1). For the subsequent tests the corresponding figures for the 50-69 year, 45-49 year and 70-74 year age groups were 4.4% (range 1.4 - 9.6), 6.8% and 5.5% respectively (Table 4.6.1).

4.1.4.2. Further assessment participation rates

For the 18 (64%) EU Member States providing this information, the mean further assessment participation rate for the 50-69 year age group was very high (97.4%), with little variation by the States or the age groups (Table 4.4.2). While positive screening tests require further assessment, it can be assumed that many of those women not reporting for further assessment at a screening centre had chosen to have further assessment at another clinic.

4.1.4.3. Treatment referral rates

Further assessment of the screen positive women for whom malignancy is confirmed or cannot be excluded by imaging and/or percutaneous biopsy entails referral for further diagnostic procedures and/or treatment (or open surgical biopsy). The treatment referral rate in a breast cancer screening programme is defined as the proportion of women referred for treatment and/or open surgical biopsy in a particular year out of the total number of women screened in the year. The mean treatment referral rate in the breast cancer screening programmes in the EU for the 50-69 year age group was 7 per 1000 (range 2 - 12) women screened, while for the age groups 45-49 years and 70-74 years the corresponding figures were 6 and 10 per 1000 respectively (Table 4.4.3). For the initial tests the treatment referral rates were, in the same order, 9 per 1000 (range 5 - 15), 6 per 1000 and 20 per 1000 (Table 4.5.3). For the subsequent tests the rates were 6 per 1000 (range 2 - 11), 4 per 1000 and 10 per 1000 (Table 4.6.3).

4.1.4.4. Overall malignancy detection rates (carcinoma in situ and breast cancer)

For 13.1 million mammography tests, the overall detection rate for carcinoma in situ (CIS) and invasive breast cancers (overall malignancy detection rate) for the 50-69 age group in the EU Member States was 6.2 per 1000 (range 2.3 - 10.1) women screened, while for the age groups 45-49 years and 70-74 years the corresponding figures were 4.3 and 9.5 per 1000, respectively Table 4.4.4). The data included nearly 90,000 cases of breast cancer or in situ carcinoma of the breast reported in the breast screening programmes per year.

For the initial tests the overall malignancy detection rates were, in the same order, 7.2 per 1000 (range 4.6 - 10.4), 4.4 per 1000 and 18.5 per 1000 (Table 4.5.4). For subsequent tests the rates were 5.6 per 1000 (range 2 - 10), 2.5 per 1000 and 9.1 per 1000 (Table 4.6.4).

4.1.4.5. Detection rates of CIS

The mean detection rate in the EU Member States for carcinoma in situ in the 50-69 year age group was 1.0 per 1000 (range 0.3-2.1) women screened, while the corresponding figures for the 45-49 year and 70-74 year age groups were 1.2 per 1000 for both (Table 4.4.5). For initial tests the detection rates of CIS were, in the same order, 1.3 per 1000, 1.3

per 1000 and 1.6 per 1000 (Table 4.5.5). For subsequent tests the rates were 0.9 per 1000 (range 0.3 - 2), 0.5 per 1000 and 1.2 per 1000 (Table 4.6.5).

4.1.4.6. Detection rates of invasive breast cancers

The mean detection rate for invasive cancer in the breast screening programmes in the EU Member States for the 50-69 age group was 5.2 per 1000 (range 1.8 - 8.1) women screened, while for 45-49 year and 70-74 year age groups the corresponding figures were 3.1 and 8.3 per 1000 respectively (Table 4.4.6). For the initial tests the detection rates of invasive cancer were, in the same order, 5.9 per 1000 (range 2.8 - 7.7), 3.2 per 1000 and 16.9 per 1000 (Table 4.5.6). For the subsequent tests the rates were 4.6 per 1000 (range 1.8 - 8.1), 2.0 per 1000 and 7.9 per 1000 (Table 4.6.6).

4.1.4.7. Positive predictive value (PPV) of screening test for any malignancies (CIS and invasive breast cancer)

The mean PPV of the mammography screening test in the EU Member States for the 50-69 age group was 12.2% (range 4.4 - 27.9), while for the 45-49 year and 70-74 year age groups the corresponding figures were 4.8% and 17.1% (Table 4.4.7). For initial tests the PPVs were, in the same order, 6.6% (range 3.1 - 14.9), 3.5% and 17.2% (Table 4.5.7). For subsequent tests the values were 11.4% (range 5.2 - 35.4), 3.6% and 17.1% (Table 4.6.7).

4.1.4.8. Proportion of CIS among all cancers

The proportion of CIS among all malignancies of the breast is less affected by the background incidence than the CIS detection rate. The proportion decreases with advancing age. The mean value for the EU Member States for the 50-69 year age group was 16.3% (range 1.2 - 20.9), while for the age groups of 45-49 years and 70-74 years the corresponding figures were 27.6% and 12.8% respectively (Table 4.4.8). For the initial tests the corresponding figures were 18.0% (range 9.1 - 51.0), 28.7% and 8.8% (Table 4.5.8). For subsequent tests the proportions were 16.9% (range 7.6 - 23.1), 21.2% and 13.1% (Table 4.6.8).

4.1.4.9. Benign surgical biopsy rates

Open surgery with benign results following a positive screening test is a rare unwanted effect of breast cancer screening. The mean benign surgical biopsy rates for the EU Member States for the 50-69 age group was 0.8 per 1000 (range 0.2 - 4.7) women screened, while for the 45-49 year and 70-74 year age groups they were 1.5 and 0.7 per 1000 respectively (Table 4.4.9). For the initial tests the corresponding figures were 1.6 per 1000 (range 0.3 - 7.1), 1.7 and 0.9 per 1000 (Table 4.5.9). For the subsequent tests the rates were 0.7 per 1000 (range 0.1 - 1.7), 0.8 per 1000 and 0.7 per 1000 (Table 4.6.9). The benign surgical biopsy rates can also be expressed as a ratio of benign to malignant detection rates (B/M ratios; table 7.1). The B/M ratio in the EU Member States for the 50-69 years age group was 0.13 (range 0.03 - 0.73). For the initial tests the corresponding figure was 0.22 (range 0.05 - 0.97). For the subsequent tests the ratio was 0.13 (range 0.03 - 0.5).

4.2. Cervical cancer screening

Detailed and screening site-specific aggregate data were collected in excel tables. The blank tables were delivered to the 28 Member States, 19 (68%) of which were returned with at least some quantitative information on the organized and population-based cervical cancer screening programmes. Five Member States provided all or part of the required data

regionally: Belgium for Flanders; France for 13 districts (considered altogether) representing about 13% of the national target population; Portugal for Azores; Italy for North, Centre and South; and UK separately for England, Northern Ireland, Scotland and Wales. The total number of areas analysed were therefore 24. The data call concerned the year 2013, and all the data providers referred to that index year except a few exceptions. (Table 4.7)

4.2.1. Coverage by invitation and by examination

We computed the coverage by invitation as the proportion of the women in the target population who received a primary screening invitation in the index year. Reminders or invitations to follow-up testing are excluded (i.e., one only (first) invitation per screening round). Table 4.7 summarizes the screening policy applied in each country in the index year (which may not be the same as the current one). The target population was computed as the number of women in the target age divided by the relevant screening interval. For example, if the interval was 3 years in the age range 25-49 years and 5 years in the age range 50-64 years then the target population was computed as $p_{25\text{-}49}/3+p_{50\text{-}64}/5$, where $p_{25\text{-}49}$ and $p_{50\text{-}64}$ are the female populations in the age ranges 25-49 and 50-64 years, respectively. It must be taken into account that using a single index year for estimating coverage for a screening with rounds of 3-5 years entails some imprecision due to variability between years, so that in some case invitational coverage exceeds 100%. To enhance cross-country comparability of results, we used for all countries (or regions whenever relevant) the EUROSTAT figures for calculating the target populations. In each country we computed coverage for the entire target population of that country and for the age group 30-59 years. The latter is the minimum recommended age to be targeted and in the index year it was common to all areas that provided data.

When excluding the countries for which data are not available, 63.6% of the target population of any age (range 7.6 - 100) and 59.2% (range 7.3 - 100) of that aged 30-59 years was invited for cervical screening in the index year (table 4.8). These values increase to 81.5% and 78.2% respectively if just the regions for which data where provided (because programmes were active) were considered. It must be taken into account that some countries invite all women in the target population while other ones invite just those who were not screened on their own initiative in the due interval, so that invitational coverage is by definition <100%. This information is reported in table 4.7.

In the index year 26.1% of the target population (any age) of the countries that provided data had cervical screening after invitation (29.8% restricting to the age range 30-59 years) as shown in table 4.9 and figure 4.2. These values (which always exclude opportunistic activity) increased to 34.1% and 40.2% respectively if just the regions that provided data (because the programmes were active) were considered. It must be considered that such coverage does not include opportunistic activity.

Table 4.10 reports, when available and limited to the regions where programmes are active, the proportion of the target population that was tested in the index year independently of invitation. For the 10 countries (identified by note 1 in table 4.10) that do not invite to be tested in the programme women that have been previously screened opportunistically, the examination coverage includes the opportunistic activity. Considering all ages, this overall coverage ranged between 41.3% and 86.3% and was >80% in 3 countries and >75% in another one. In the other countries the data included small proportions of women who had screening within the organized programmes without individual invitations. Opportunistic activity is discussed in section 5.3.1. The main interest of this survey is in population-based screening, for which coverage after invitation is the most relevant. However, in interpreting

results it must be kept in mind that opportunistic activity is frequently substantial in the EU Member States.

4.2.2. Participation rate

Results on participation rates are shown in Table 4.11. The mean participation in the Member States/regions that provided data was 40.8% when considering all target ages but increased to 50.7% when considering only women aged 30-59 years.
When considering all ages, the highest participation rate was in Finland (67.4%) and the lowest in Croatia (10.3%).

4.2.3 Completeness of information

Data collection aimed at describing by appropriate summary indicators the entire process of care, including screening examination and further assessment of the screened women. The extent to which this information has been made available by the Member States or the regions is illustrated in Table 4.12.
Eighteen Member States/regions (52%) provided some data on colposcopy referral. However Hungary provided data only on referral to colposcopy that is substantially part of the primary screening visit in that country.
In Poland and Portugal Azores completeness of data on colposcopy was very low due to low participation to it. In Sweden participation to colposcopy is assessed on the basis of the presence of a histology report, which may lead to underestimation of the colposcopy participation.

4.2.4. Screening performance indicators

When comparing the Member States it must be taken into account that the prevalence of both cytological abnormalities and histology-proven cervical intraepithelial lesions are strongly age-dependant. To improve comparability of the results between the States the estimation of the performance indicators was restricted to the age range 30-59 years, which was common to all.

4.2.4.1. Further assessment (colposcopy referral) rates

Positive screening tests require further assessment. Abnormalities are strongly age dependant. In the 30-59 year age group (excluding Hungary, where colposcopy is substantially part of the primary screening visit) 2.1% of the screened women for whom data are available were referred to colposcopy; the range was between 0.9% and 3.8%. (Table 4.13.1) It is probable that the variations in the colposcopy referral rates are mainly due to the differences in the adopted protocols, in particular in triaging of the HPV positive women.

4.2.4.2. Further assessment participation rates

For areas providing information, the European mean for the colposcopy participation rates for all ages was 76.6%. (Table 4.13.2) In certain countries (see notes in table) some of the colposcopies, occasionally substantial in number, are performed outside the organized programme (data not included).

4.2.4.3. Detection rates (DR) of histology-proven CIN2, CIN3 and cancer

For all the ages the overall detection rates of CIN2 or more severe (CIN2+) lesions (table 4.13.3) and CIN 3 or more severe lesions (CIN3+) (table 4.13.4) were 4.3 (range 1.0 - 12.8) and 2.7 (range 0.6 - 9.1) per 1000 screened women respectively. It must be taken into account that in some countries the detection rates are underestimated due to incomplete registration of the histology reports for the colposcopies performed outside the programme. In some countries the organized programme co-exists with intensive opportunistic activity leading to lower DR, because part of the CIN lesions are detected and treated by the latter. Finally, there are plausibly relevant differences in the baseline risk of CIN in the different European Union Member States.

4.2.4.4. Positive predictive value (PPV) of the screening test for histology-proven CIN2 and CIN3 and cancer

Considering all the ages, the overall PPV of referral to colposcopy for CIN2+ and CIN3+ diseases were 27.1% (range 16.0 - 65.4) (table 4.13.5) and 16.4% (range 8.5 - 52.2) (Table 4.13.6) respectively.

4.3. Colorectal cancer screening

Population-based colorectal cancer (CRC) screening programmes had been implemented in 2013 in 19 of the 28 EU Member States: 18 of these (all but Lithuania) had implemented a call-recall system, ensuring active invitation of their entire target population at regular intervals specified by their screening protocol. Non-population-based programmes were ongoing in Czech Republic (the population-based organized programme using FIT was introduced in 2014) Germany, Greece and Latvia.

We received quantitative performance data from 2 out of 4 non-population-based programmes (Czech Republic and Latvia), while, out of 19 member states with population-based programmes, 16 provided quantitative data on invitation and examinations (no data from Austria, Cyprus and Denmark) and 15 provided quantitative data on test and assessment results (no data from Austria, Cyprus, Denmark and Portugal) also.

4.3.1. Coverage by invitation and examination

Data about screening invitations and examinations have been provided by 18 (78.3%) out of 23 countries having implemented a population-based or non-population-based screening programme; no data could be provided by Austria, Cyprus, Denmark, Germany and Greece. Among responders, three countries (Czech Republic, Latvia and Lithuania) had not implemented an active invitation system, while the remaining 15 were inviting their entire target population at regular intervals specified by their screening protocol. The data call concerned the year 2013, and all the data providers referred to that index year except a few exceptions. (Table 4.14.1) Only the primary screening invitations in the index year were considered to compute the number invited. Reminders or invitations to follow-up testing were excluded (i.e., only one (first) invitation per screening round).

The 2003 EU Council recommendations indicated to offer screening with biennial faecal occult blood testing to all subjects aged 50-74 or, based on national prioritization for a narrower age band. The recent recommendations of EU code against cancer[19], based on a comprehensive review of available evidence, reported that most programmes start screening between age 50 and 60, with a 2-year interval, if the screening test is the gFOBT or the FIT,

or a 10-year interval, or more, if the screening test is FS or TC, and to continue sending invitations to screening up to the age 70–75 years.

Available modelling studies[20] suggest that CRC screening is a cost-effective intervention, when offered to average risk subjects aged 50 to 74. The expected cost-effectiveness ratio is dependent on several factors, including background risk, screening method, organisation of the programme, resources in health care and also on the age range targeted by the programme. In addition, as also methods using non-invasive faecal tests for primary screening will require colonoscopy assessments of positive subjects, issues related to colonoscopy capacity are also influencing the choice of the method, as well as of the target age range, in different jurisdictions.

To optimise (limited) resources allocation, by maximising the cost-effectiveness ratio of the intervention, and to match their endoscopy capacity, several EU member states have actually adopted screening policies targeting a stricter age range, usually shifted to the older age groups, showing a higher prevalence of disease, resulting in a lower cost per lesion detected. The data concerning the estimated coverage by invitation (i.e. the proportion of the subjects in the target age range who received a screening invitation within the scheduled interval in the index year, over the total number of annual eligible subjects), or by examination (the proportion of subjects in the target age range who had a screening test within the scheduled interval in the index year over the total number of subjects in the annual target population) are presented therefore considering two different target populations: 1) the population aged 50 to 74 years and 2) the population within the age range targeted by the programme in each country. The annual target population was calculated by dividing the total population in the age range divided by the screening interval.

To enhance comparability of cross-country results, we used for all countries (or regions whenever relevant) the EUROSTAT figures for calculating the target populations.

The estimated coverage by invitation and by examination are presented in table 4.14.1; both indicators are reported for each member state providing the relevant data. The variability across member states for both indicators is fairly wide: the 10-90 percentile range is 8.7% - 100.7% for invitation and 1.8% - 43.0% for examination coverage; the corresponding figures for the Inter Quartile Range (IQR) are 13.6% - 84.6% and 6.5% - 32.1% respectively. The examination coverage in the 50-74 years age group across different member states is also shown in figure 4.3. The coverage by the programme specific age groups is also depicted in Figure 4.4.

We also calculated a summary indicator both for invitation and examination coverage for the entire EU. It should be considered that these latter estimates could only be derived over a uniform target population (i.e. the 50 to 74 year age groups) and assuming the most common screening interval (i.e. 2 years), also for those countries where the screening programme was not implemented. These estimates did not take into account that in many countries the actual target age group was narrower.

The coverage by invitation was similar in organized population-based programmes using endoscopy (TC, FS), as among those programmes using faecal tests as primary screening method, after accounting for the different screening intervals associated with the different protocols. The estimates presented do not take into account (relevant data were not collected) the impact of policies stipulating the exclusion from invitation of ineligible subjects in the target population. However, exclusion criteria are not standardised across countries, they are highly dependent on organisational policy decisions and their adoption has been criticised, give there are often based on inaccurate information. A recent review of the

measures adopted to estimate participation concluded that the validity of international comparisons could be improved by reporting sex-, age-, screening test- and screening history specific participation rates, without taking into account exclusion criteria.[21]

Coverage by examination is reflecting the participation rates, which are influenced by gender and screening protocol; as expected, women are showing a higher coverage than men in all countries using faecal test, while the opposite is true in those countries implementing endoscopy screening. The reported figures for the EU coverage are underestimated, as the data about opportunistic screening activity in Germany, as well as those about the activity of the screening programmes in Austria and Denmark are not available. However, the expected impact of these missing information is likely to be low. Indeed, the screening programme in Austria is covering about 4% of the 50-74 year Austrian population, the programme in Denmark, targeting 1.2% of the EU population aged 50 to 74, was started in spring 2014, which limited the available time interval for sending invitations, while the German programme is still offering opportunistic screening. So the reported figures for invitation coverage are likely to be representative of the 2012-2104 situations. Using the published figures of screening colonoscopy activity to estimate the examination coverage of the target population in Germany,[22,23] the estimated examination coverage of the EU population aged 50 to 74 years would increase from 14.0% to 17.3% (data not shown).

Ongoing programmes are not always covering the entire country. Some countries implementing the programme at the regional level have not yet completed the rollout phase. In Italy the established regional programmes are reaching 73% of the target population (age 50 to 69 years|); in Portugal, CRC screening programmes have been started in 2 regions making up 30% of the population aged 50 to 70 years targeted by the programme; in Spain regional programmes are reaching 56% of their target population (age 50 to 69 years). In Sweden the programme was initiated only in the Stockholm region, making up 20% of the Swedish population aged 60 to 69 years and in the other parts of the country a large-scale randomized screening trial on novel screening strategies is on-going *(ClinicalTrials.gov Identifier: NCT02078804).*

Other countries are implementing their programme following a stepwise approach, designed to achieve full-coverage over a pre-specified time interval. The duration of the rollout phase, as well as the timing of the inclusion of the targeted birth cohorts, has been determined based on resource implementation plans (The Netherlands), or on the design requirements of the planned randomised health services evaluation (Finland and Poland).

Table 4.14.2 is reporting the coverage estimates for these countries based on their planned target population. When assuming the actual population targeted by the programmes as the reference for estimating programme coverage, the estimated proportion of subjects invited increases from 36.4% to 58.4%; a similar increase from 18.2% to 29.2% can be observed for examination coverage.

4.3.2. Participation rate

Participation rates are available for those EU Member States where subjects in the target population receive a personal invitation. Participation rate is indeed defined as the percentage of subjects screened in a particular year out of the total number of those who had received a personal invitation in that year. The observed participation rates are presented in table 4.15.

Participation in a single invitation round is generally (but not always) higher for programmes offering faecal tests, as compared to the programmes offering flexible sigmoidoscopy (FS) or

total colonoscopy (TC) screening. However, it should be considered that regular repetition of faecal tests is needed to achieve the expected protective effect, while a single FS or TC can ensure a long lasting protection to those who attend. Therefore, when considering the protective effect of screening at the individual level, a more appropriate comparison would require to estimate the proportion of regular attendees to gFOBT/FIT invitation over a time interval comparable to the duration of the protective effect of FS/TC. On the other hand, from a public health point of view as a certain proportion of non-responders will attend at least once over repeated invitations, a higher proportion of subjects in the target population will benefit to some extent from the protective effects of screening protocols using tests to be repeated at regular intervals.

Also, while available evidence[24,25] is indicating that the adoption of FIT is associated with an increase in the participation rate, the observed differences in the participation across EU countries are still showing a strong influence of cultural background, obscuring the expected impact of the adoption of the more acceptable method.

Table 4.16 shows the participation rates separated by gender for different screening programmes and age groups. When analysing gender and age related trend in all the countries implementing gFOBT or FIT, screening participation is higher among women than among men and is higher among people aged 60 to 69 years as compared to the younger or older age groups. Men are instead showing a higher response to the invitation for FS or TC.

Only one regional programme in Italy is offering a combination of tests - FS, once in the lifetime is offered as primary screening test and those who refuse FS are invited for biennial FIT. Such strategy results in substantial increase in the population coverage, similar among men and women.

4.3.3. Completeness of information

Data collection aimed at describing by appropriate summary indicators the entire process of care, from invitation to screening examination, further assessment, and final diagnosis. The extent to which this information has been made available by the Member States or the regions is illustrated in Table 4.17.

Data about the different phases of the screening process, including the information about attendance (tests returned), test results compliance with the referral for colonoscopy assessment and the availability of the histology result of the subjects having a positive primary screening test, are available for 15 (no data could be provided by Austria, Cyprus, Denmark and Portugal) out of 19 countries having implemented a population-based programme and for 2 (Czech Republic and Latvia) of the 4 countries having implemented non-population-based screening.

4.3.4. Screening performance indicators

To account for the different characteristics of the screening methods adopted in the EU Member States, the survey results have been presented stratified by country, age and screening methods. Colonoscopy performance indicators were obtained from Italy (FS), Czech Republic (TC) and Poland (TC). The performance indicators by the Member States/regions and the age groups are listed in the tables as follows: performance indicators for gFOBT - tables 4.18.1 to 4.18.9; performance indicators for FIT - tables 4.19.1 – 4.19.9; performance indicators for endoscopy - tables 4.20.1 to 4.20.6.

The distribution of the screenees by gender, age and screening history (when using faecal tests) should be taken into account as well, when comparing screening performance indicators across different jurisdictions, given the association of the prevalence of the disease. Stratified data by gender and screening history are presented in the tables as follows: by gender – tables 4.21.1 to 4.21.9; by initial screening visits – tables 4.22.1 to 4.22.9; by subsequent screening visits – tables 4.23.1 to 4.23.9.

Several countries having adopted a screening protocol based on fecal tests (FIT/gFOBT) could not provide information about the number and/or the age and gender distribution of inadequate tests, while data concerning the number of negative and positive tests were available for all Member States providing quantitative information. Therefore, we calculated the positivity rate (PR) and the detection rate (DR) using as a denominator the number of valid test (i.e. the sum of negative and positive tests).

4.3.4.1. Positive screening test results

Rates of positive screening test results reflect the cut-off level chosen in each Member State for the adopted test. They are fairly consistent across the Member States using gFOBT (range: 1.8% to 4.1%), while a larger variability can be observed across States adopting FIT (range: 3.3% to 9.8%). The possibility to customise the cut-off when using quantitative FITs, together with the screening protocol (one versus two samples) and the type of the programme (opportunistic versus organized) can explain the observed variability, which is maintained even within homogeneous age and gender sub-groups.

The rates of positive test results for FS were 8.9% and 13.9% in women and men respectively in Italy.

4.3.4.2. Proportion of inadequate tests *(data not shown in the tables)*

Information about inadequate tests was provided by 14 programmes (7 gFOBT and 7 FIT) from 12 countries: the proportion of inadequate tests over the total number of subjects returning the kit ranged between 0.2% and 7.6% (4 programmes in the range 2%-5%) with gFOBT and between 0.1% and 5.5% (5 programmes reporting an inadequate test rates below 1%) with FIT. It should be considered that this proportion is also reflecting the programmes policies defining the management of these subjects who are usually requested to repeat the test: the reported figures are referring to the proportion of subjects who did not repeat (refusers and not yet re-invited). Also, the proportion of inadequate sample is higher at the first screening as compared to subsequent screening rounds.

4.3.4.3. Follow-up colonoscopy participation rates

Compliance with assessment colonoscopy referral among subjects with a positive screening test is around 80% in most countries independent of the primary screening method.
Compliance was below 50% in the only non-population-based programme reporting these information, while the average for population-based programmes was 73.4% (IQR: 70.0%-84.9%). Incomplete information about the examinations performed outside the programme might account for the low uptake (<75%) observed in some of the MSs

4.3.4.4. Follow-up colonoscopy and screening colonoscopy completion rates

Information on completion rate of assessment examinations is incomplete in several countries. Available data would suggest, however, that the quality of the examinations is generally satisfactory, with several programmes reporting completion rates over 90%. As

expected, completion rates tend to be lower among women than among men, and this is true even when colonoscopy is offered as primary screening test.

4.3.4.5. Detection rates and PPV of FIT and gFOBT

The detection rate (DR) and the positive predictive value (PPV) for colorectal cancers, adenomas and advanced adenomas are influenced by the characteristics of the screened population as well as by the screening protocol adopted. The prevalence of the target lesions is lower among screenees having previous negative examination reports and independent of subject's screening history, the prevalence shows an increasing trend with age, both among men and women. Also, the choice of the positivity algorithm adopted to define a positive gFOBT or of the positivity cut-off set for the FIT test substantially influence the detection rate, in particular for adenomas and advanced adenomas. Finally, the background incidence of the disease in the absence of screening widely varies across the Member States and areas of the EU (see incidence maps). Such disparities also contribute to the observed variations in the diagnostic performances of the tests.

Cross-countries comparisons, even among those using the same type of tests are therefore difficult. PPV may represent a more meaningful indicator for cross-countries comparisons, as it allows to derive the number needed to scope (NNScope=1/PPV), which represents an estimate of the amount of resources (measured as total colonoscopy workload) required within each country/protocol to detect one target lesion.

We have also presented detailed data stratified by gender, age and screening history, whenever available. Direct comparisons within these strata may offer more relevant indications to compare the performance of different screening protocols.

4.3.4.5.1. Detection rates of adenomas and advanced adenomas

Several countries could not provide data about the DR of advanced adenomas. However, given that sensitivity for large and/or villous adenomas tends to be higher both for FIT and for gFOBT, the overall adenoma DR can be considered a proxy of the advanced adenoma DR. Also, the reproducibility is higher for the diagnosis of adenoma than for the diagnosis of advanced adenoma, which would reduce a known source of variability in the DR estimates. Consistent with results of comparative trials, FIT programmes showed a higher DR both for advanced adenomas and any adenoma, as compared to gFOBT: while only two gFOBT programmes reported a DR for adenomas (any type) over 1% (average=0.6%), the observed DRs for FIT based programmes ranged between 1.1% and 3.6% (average=2.1%).

4.3.4.5.2. Detection rates of colorectal cancers

Colorectal cancer detection rates ranged between 0.9 and 1.9 per 1000 in countries using gFOBT and between 1.2 and 4.7 per 1000 in FIT based programmes. The same trend can be observed also when restricting the analysis to the 60 to 69 year age group, targeted by most programmes, to reduce variability related to the age distribution of the screened population.

4.3.4.5.3. PPV for the detection of adenomas, advanced adenomas and CRC

The positive predictive value for detection of CRC was higher with gFOBT (mean 6.7%; IQR 4.9% - 7.9%) than for FIT (mean 4.5%; IQR 3.5% - 6.3%), while PPV was higher with FIT than with gFOBT, both for advanced adenomas (PPV of FIT: mean 26.9%; IQR 20.1%-36.2%; PPV of gFOBT: mean 14.3%; IQR 5.9% - 14.5%) and any adenoma (PPV of FIT: mean 46.0%; IQR 39.0% - 55.2%; PPV of gFOBT: mean 34.1%; IQR 30.0% - 37.8%).

4.3.4.6. Detection rates of endoscopy for adenomas, advanced adenomas and CRCs

The DR of CRC and advanced adenomas is similar in the youngest age group (55 to 59) where endoscopy screening, either FS (Italy), or TC (Poland), is offered in the context of an organized programme, while it is higher in the Czech opportunistic programme. The DR of adenomas (any type) is higher with TC than with FS. DR of CRC and adenomas show an increasing trend with age.

5. Discussion

5.1. Key findings of the report

The present report provides an overview of the developments in the extent to which the EU Member States have adopted the policies advocated in the Recommendation of the Council of the European Union in December 2003 on Cancer Screening. The Council Recommendation also comprises specific items relevant for organisational components and systematic quality assurance of the population-based cancer screening for breast, cervical and colorectal cancers and efforts aimed at achieving and maintaining an appropriate balance between benefit and harm of screening in these programmes. For the present overview, data has therefore been collected on the type and implementation status of screening programmes currently running or being established in the Member States, in a manner comparable with the earlier, first report on the implementation of cancer screening in the EU. As recommended by the Council, the current, second implementation report measured the availability of screening registries and databases, and collected and reported quantitative information on the performance and quality indicators of screening programmes using the screening registries as the main information source. Qualitative information relevant for validation of the screening registry based data as well as information on organizational aspects of the programmes was also collected.

Based on the findings of the current report it is obvious that within the relatively short time interval between the publication of the first report[11] and the present one, a large number of EU Member States have started running or establishing population-based breast, cervical and colorectal cancer screening programmes. For each of the three cancer screening sites, majority of the target population in the EU Member States have been covered. Approximately 95% of the 67.5 million women in the Council recommended eligible age (50-69 years) for breast cancer screening in 2016 are residing in Member States that have adopted policies to implement, pilot or plan for population-based breast cancer screening programmes. The size of the target population for cervical cancer screening is much bigger (106.5 million) due to the wider age group (30-59 years); even then, 72% of women in the potential target age are residing in countries running, piloting or planning for population-based cervical screening programmes. The accomplishments of the member states in implementing colorectal cancer screening within the relatively short period of time are remarkable. Out of the estimated 153 million women and men in the potential widest target age group of 50-74 years in the EU member states, 72% are targeted by screening in those Member States that have adopted at least some policies to implement, pilot or plan for the population-based screening programmes.

There is substantial agreement between the Member States in the EU and the Council on the health policy priority of establishing cancer screening programmes of appropriate quality. The scale of these activities underlines the substantial impact which actions at the Community level can have on the health of Europe's citizens.

Population-based breast cancer screening programmes are now running or being planned or piloted in 25 of the 28 EU Member States. Cervical cancer screening programmes are running or being established in 22 of the EU Member States and colorectal cancer screening programmes in 23 of the Member States. The increase in colorectal cancer screening has been particularly spectacular, because prior to 2003 no Member State had implemented a full-scale colorectal cancer screening programme, and their planning, piloting and rollout to full implementation began mostly after the Council recommendations.

Although significant progress in cancer screening in the EU has been documented, the report also revealed several shortcomings and barriers. The population coverage of one or more of the cancer screening programmes is rather low or even very low in many of the Member States, indicating a low rate of acceptance by the population, and possibly also inadequate adherence by the policy-makers and medical professionals to the quality assurance requirements. Low coverage also indicates the presence of health inequities and social inequalities. There are wide variations in the EU in the resources available to the governments for healthcare services; some Member States may still lack the resources for establishing these fiscally and logistically demanding programmes. In many countries, appropriate monitoring of screening activities was not yet in place. The monitoring databases are necessary not only for accountability of cancer screening but also for evaluating the screening outcomes and the potential adverse effects and harms. Furthermore, some of the key performance indicators, such as detection rates and positive predictive values for histologically confirmed findings indicated wide variations between the national programmes and between regional programmes (with variation also possible within programmes, i.e. between service providers). In interpreting these variations, the different prevalence or underlying incidence of the condition must be taken into account. Moreover, although we standardized data collection and asked for the numerical components of the indicators (e.g. number of invitations and number of attenders) rather than the indicators themselves (participation rate), a minor contribution to this variation may arise from differences in the definitions or interpretations of the data items used by the screening registers. The impact of these variations upon the overall effectiveness and balance of benefit and harm deserves further investigation.

The present report confirms that the Council Recommendations have had a positive impact on the successful implementation of complex, population-based programmes of breast, cervical and colorectal cancer screening in the EU. These services reach very large segments of the population to provide highly specialized multidisciplinary services and integrate a broad range of health care providers, regulatory agencies and other institutions. The salutary impact of the Council Recommendations should be emulated in future efforts to improve the control of cancer and other chronic diseases in the EU.

5.2. Strengths of the study

Our call to the data providers had a high response rate in the Member States and information was received from each population-based programme. Respondents had a formal status through the ministries of health or other health authorities of the Member States, so that the authorities could check the contents whenever needed. The official data sources (including screening registries and their statistics; national quality manuals and guidelines; legislation) were used, and the questionnaire data collection process included further documentation of the data sources by each country in order for the authors to verify these responses. Performance data from official screening registries provided further information on the current implementation status, for example information on coverage and detection rates in the programmes, using standard definitions from the European guidelines as much as possible. These indicators contribute to the evaluation of the national programmes and enable comparisons among countries and regional programmes.

5.3. Limitations

Although the European Guidelines on cancer screening and the activity of the European Cancer Screening Network contributed to homogeneity, the screening protocols adopted by Member States and the organisation of data collection and evaluation may differ and make some comparisons difficult. However, as it has been illustrated in the Methods section, this

report is based on structured and standardised data collection and on detailed documentation, so to limit this problem.

In all EU countries there is opportunistic testing ongoing, either alongside the population-based cancer screening programmes, or as the only available testing modality in addition to diagnostic services for symptomatic patients. The present report does not substantially include opportunistic activity, which is not recommended by the European Council (2003).

The size of opportunistic activity is particularly relevant for cervical screening. Screening data on the overall number of women tested in the index year, including those screened on their own initiative, is available for countries that use an "integrated" approach (i.e. actively inviting only women not screened on their own initiative): as it is clear comparing table 4.9 and table 4.10, such opportunistic activity can represent a substantial proportion of the screening activity. However, registered data[26] or interview surveys[27] show that opportunistic activity can be very large also in countries that invite all women.

For breast cancer screening no quantitative data were reported by the three countries having implemented non-population based screening only. For colorectal cancer screening quantitative data were reported by two out of four countries having implemented only non-population based screening at the time of data collection. For both sites, opportunistic testing is ongoing also in those countries having introduced population based programmes. Quantitative data on such activity, generally derived by population health surveys, are limited, often showing a marginal contribution of such activity to the population coverage.

Testing of the population outside the target age groups and intervals of population based programmes, although common, is poorly documented, and is generally not subjected to the systematic quality assurance recommended for screening programmes. Related over-diagnosis and overtreatment of regressive cervical precancerous lesions, and overly frequent opportunistic testing all contribute to increased health care costs. Opportunistic testing brings social inequalities when the more affluent can more readily obtain the benefits of testing than the less affluent.

One reason for the choice to collect data substantially only on the activity of population-based programmes is precisely the fact that organised screening only is recommended by the European Council, because of its many and well documented advantages (see Introduction). Another reason is that in many situations data on the opportunistic activity are simply not available because they are not registered. Indeed registration and monitoring is one of the features of organised screening.

Nevertheless the existence of opportunistic activity must be kept in mind:

- When interpreting examination coverage. The reported coverage, that considers only screening after invitation, is plausibly, in some case, much lower than the proportion of women who was tested during a screening round.
- When interpreting other process indicators. If women have both opportunistic and population based screening the former will remove disease, reducing the observed referral, detection and PPV
- When evaluating the overall costs of the activity of early detection. Costs are usually lower in presence of a population based screening but this requires a reduction of the opportunistic activity

Successful planning, preparation and completion of the nationwide implementation process may require a decade or longer. For this reason the full implementation of breast, cervical

and colorectal cancer screening programmes in the EU has still not occurred in many countries. Further follow-up and updates are recommended on a regular basis.

5.4. Comparison with the first report and other earlier studies

5.4.1. Implementation status

5.4.1.1. Breast cancer screening

Population-based breast cancer screening programmes were running or being established in 22 of the 27 EU Member States in 2007[11] and in 25 of the 28 Member States in 2016 (section 3.1.1). Comparable data had been collected by the IARC Handbook on Cancer Prevention on breast cancer screening,[7] and in the surveys conducted by the International Breast Screening Network (IBSN) sponsored by the National Cancer Institute in the USA in 1998 and 2002.[28,29] The IBSN surveys reported on characteristics of the population-based screening programmes, including 9 and 10 current EU Member States. The IARC handbook reported that in 2002 organized breast cancer screening programmes were running or being established in 15 current EU Member States, six of which had nationwide and six of which had regionally limited programmes. A review of the breast cancer screening programmes in 2014 in the EU by Altobelli and Lattanzi reported 23 Member States having population-based (regional or nationwide) screening programmes.[30]

Compared to the first report describing the implementation status in 2007, substantial progress has been still made in further implementation of population-based breast screening programmes in the EU. Three additional current Member States were running or establishing population-based programmes in 2016. Nationwide rollout of population-based screening is currently complete in 22 of these Member States with an approximate target population of 60 million women aged 50-69 years. It is encouraging to note that pilot or demonstration projects undertaken in preparation for nationwide screening, have been completed or are ongoing in two of the countries without population-based programmes at present (Bulgaria and Romania). (Section 3.1.1)

5.4.1.2. Cervical cancer screening

A questionnaire survey conducted by the Epidemiology Working Group of the European Cervical Cancer Screening Network and the International Agency for Research on Cancer in 2003 documented only 14 of the current EU Member States in which national, regional or pilot cervical cancer screening programmes had been established prior to 2003.[31] In addition there was very wide non-population-based activities meant for cancer screening purposes, utilizing often opportunistic, non-regulated policies and protocols.

In 2007, four years after the adoption of the Council recommendation, only 15 Member States, representing less than half of the potential target population, had population-based screening activities for cervical cancer[11], whereas in 2016 population-based screening for cervical cancer is provided or planned in 22 countries targeting nearly three fourth of the nearly 106 million target population. (Section 3.1.2)

5.4.1.3. Colorectal cancer screening

The first report on the implementation status showed that 19 Member States were running, piloting or planning colorectal cancer screening programmes in 2007[11] though none of them had full-scale implementation of population-based programmes, i.e. rollout completed within the targeted age ranges and screening intervals. The number of Member States reported to

have colorectal cancer screening programmes in an international survey conducted in 2003 and 2004 was much smaller.[32] National or regional programmes were reported in the survey only for the Czech Republic, Italy and Poland, and pilot projects were found in France, Italy, Spain and the United Kingdom. A further survey of 40 national gastroenterology societies between 2004 and 2006 indicated that 13 countries, 12 of which are EU Member States (Austria, Bulgaria, Czech Republic, Finland, France, Germany, Hungary, Italy, Luxembourg, Poland, Slovak Republic, United Kingdom) were operating a colorectal cancer screening programme.[33] Both of the aforementioned surveys were consistent with the results of the first report showing a preponderance of FOBT or FIT -based as opposed to endoscopy-based colorectal cancer screening programmes in the EU.

The current status of colorectal cancer screening in Europe shows 23 countries having the programme either already implemented or in the planning phase, of which 11 countries have rollout completed either nationwide or regionally. More than 110 million women and men are being targeted by these population-based programmes. (section 3.1.3) Though a majority of the screening is still by faecal occult blood test, large proportions of the target population have access to screening by endoscopy (flexible sigmoidoscopy or total colonoscopy).

5.4.2. Performance of cancer screening programmes

Building on previous experience which collected quantitative screening data (Eunice projects[34,35,36], ICSN DCIS survey[37], Joint Research Council survey[38]) the second report on the status of the cancer screening programmes in the EU Member States has substantially increased the scope of the first report by collecting detailed quantitative information on cancer screening in Europe. In the present survey the number of Member States which returned at least some quantitative information on their screening programmes is impressive: 25 for breast cancer screening, 19 for cervical cancer screening and 18 for CRC screening. This positive response demonstrates the success of the organized population based screening programmes in collecting and reporting meaningful data and the successful application of common quality standards across the EU countries. On the other hand, some of the Member States were not able to deliver a minimum set of data that is considered essential for directing quality assurance activities. Continuing European monitoring of these essential parameters would certainly improve the extent and quality of screening data, stimulate networking and enhance screening effectiveness in the Union. A coordinated strategy for delivering services and collecting information will further improve the planning and delivery of screening services.

The presentation of regional data for some of the EU countries enriches this report by noting both the similarities and the substantial differences within these countries. The countries and regions concerned can use this report to help recognize and improve regional performance.

Invitation and examination coverage have been computed at the European Union level with reference, for a majority of these areas, to the year 2013. These results should be considered in parallel with the results in the Implementation chapter that refer to the index year 2016. The Maps convey actual European examination coverage at the countries as well as the regional levels, thus providing useful complementary information to the implementation Maps.

The variability in screening performance indicators by countries and regions is, as expected, extensive. Among the contributing reasons to such variability are ample differences in the underlying incidence of the malignancies and variability among screening protocols. Therefore, although an atlas of screening performance indicators results is presented in this publication and benchmarking by data providers might prove useful in specific situations, in

order to being able to interpret any single results or make comparisons with the European mean or the reference standard, when available (table 7.1), an in-depth analysis is necessary.

5.5. Significance and implications of the study

5.5.1. Impact of the Council Recommendation on screening policies in the EU Member States

The experience in the cancer screening networks established under the European Partnership Action Against Cancer (EPAAC) has shown that scientific investigation and piloting prior to nationwide rollout can provide information for policy-makers that is essential to effective programme implementation[39-41]. Furthermore, as detailed in the European quality assurance guidelines, a long term translational phase is essential to successfully plan, pilot and rollout population-based cancer screening programmes across an entire country, and particularly also across several countries. The time frame depends, to a large extent, on the professional and organisational capacity which must be developed to successfully perform, monitor and evaluate high quality services integrating all steps in the screening process successfully. This activity not only entails coordination of complex communication and training, but also integration of multidisciplinary teams into the diagnosis and treatment of screen-detected lesions, and integration of cancer registration and cancer registries into the monitoring and evaluation of programme performance. Even in countries with relatively small target populations, the magnitude of the task can be substantial, compared to initially available resources. Successful preparation and completion of the nationwide implementation process may require ten years or more.

For these reasons the full impact of the Council Recommendation on the implementation of breast, cervical and colorectal cancer screening programmes in the whole EU could not yet be assessed from data collected up to the end of 2007, while the current report is able to provide a much more comprehensive picture. The present report documents considerable activities in the EU Member States aimed at following the Council Recommendation on Cancer Screening. There is still space for substantial improvement in cancer screening in many Member States where effective evidence-based services are not yet available to the population potentially benefitting from those. Further improvements are also needed in Member States that seek to re-organize their healthcare services due to declining financial resources.

Even though many definitions on the organizational and quality assurance elements of the Council recommendation are still valid in 2016, it is very important to be aware of updates and developments in the concepts of population-based, organized cancer screening in general and concepts and requirements of risk-based screening and e.g. genetic testing.[42] Furthermore, currently many new screening methods have been evaluated, or need to be evaluated for their potential use in cancer screening. Some the current guidelines or updates have already recommended these new tests for routine use in the organized screening programmes. The current Annex of the Council recommendation needs updating. The EU should consider also how the criteria of cancer screening as to the legal frameworks, governance and quality assurance structures could be made more stringent, taking into account that only little development has been reached in some countries with several barriers to effective population-based cancer screening in more than 10 years after the start of implementation based on the Council recommendation.

5.5.2. Inequalities in implementation of cancer screening in the EU

Despite the wide support for cancer screening programmes which is evident in the EU thirteen years after the adoption of the Council Recommendations, it should be recognised that there is still substantial disparity between the Member States in implementation of cancer screening. This is reflected by those Member States in which nationwide rollout of population-based screening programmes is still ongoing in 2016, those which have very low examination coverage, and those which cannot certify adherence to all the necessary elements of organized, population-based screening with systematic quality assurance at all levels. Furthermore, non-population-based breast, cervical and colorectal cancer screening programmes are still conducted in several Member States and no population-based programme implementation of any kind exists or is planned in several of the Member States.

Of note, the resources available for the national economies, including resources for health care, vary considerably within the EU. Variation in the gross domestic product (GDP) per capita is more than ten-fold, and is still more than three-fold in the purchasing power parity (PPP) corrected GDP per capita estimate. Resources used for health care per capita also vary significantly, from about 700 euro to more than 4000 euro. Variation in the purchasing power standards (PPS) is also more than threefold.[43] *(PPS is the technical term used by Eurostat for the common currency in which national accounts aggregates are expressed when adjusted for price level differences using PPPs.)* The data collected for the present report do not permit reliable estimation of the total costs of screening programmes in the EU. It should be kept in mind, however, that in most Member States the cost of performing a screening test (i.e., not including additional costs for diagnosis and treatment of screen-detected lesions) is in the two-digit euro range but treatment costs are also extensive. It is evident that the more recently admitted Member States from the Central-Eastern region have lower values in the above-mentioned financial resources indicators, and at the same time have more serious barriers to organizing screening services. In addition, these countries have the lowest values in the EU of indicators related to the human development index (HDI)[44], life expectancy and cancer survival as well as the mortality/incidence ratio suggesting poor organization of health infrastructure (section 1.2). Removing this structural inequality between countries in organizing effective and cost-effective cancer screening services should be set as an important target in the EU.

5.5.3. Current screening policies in the light of novel evidence for efficacy and adverse effects: the need for implementing new methods and modifying current programmes and policies

In recent years the European Guidelines for the quality assurance of breast, cervical and colorectal cancer screening have been published and the existing ones updated, taking into account evidence from the peer reviewed published literature and from the current best practices. These guidelines recommend implementation of screening in the organizational framework of population-based programmes, delineate the steps in quality assured screening programme implementation and identify the merits and demerits of screening tests and policies. The present report reflects the level of uptake of the new screening tests and policies in the EU Member States. Mammography is universally practiced as the screening test for breast cancer in the EU with a few countries using clinical breast examination (CBE) as adjunct screening methods without any clear evidence of their benefit. It is very encouraging to see that most of the countries with population-based programmes have switched to digital mammography. HPV detection tests as the primary screening tests are being introduced gradually in many of the EU countries mostly on a regional basis and/or targeting a narrower age group. It must be kept in mind that EU guidelines on HPV based screening[45] were published in summer 2015, thus extremely close to when the present data

were collected. It will be very interesting to see the impact of introducing the HPV test and HPV vaccination in the EU countries in the coming years. The oldest cohorts of the vaccinated girls will shortly enter the screening ages. Integration of vaccination and the screening programmes will be of great importance not only to assess the efficacy of the vaccines but also to determine the most cost-effective screening strategies for the vaccinated women[46]. Co-testing with cytology and HPV tests is still being practiced in some of the Member States despite the clear recommendations against their use. The EU guidelines identified FIT as superior to the gFOBT test in terms of better detection rates and positive predictive values and also due to the logistic advantages. A majority of the Member States are using FIT to initiate their programmes or are switching from gFOBT following the guidelines. The advantages of endoscopy to expand the screening interval and to perform resection of polyps, adenomas and early invasive cancers at the same setting have led some of the countries to introduce total colonoscopy or flexible sigmoidoscopy.

5.5.4. Community added value through transition to population-based screening programmes

In the recent years the European Guidelines for the quality assurance of breast, cervical and colorectal cancer screening have been published or the existing ones updated taking into account the evidence from the peer reviewed published literature and also the current best practices in the respective areas. These guidelines recommended implementation of screening in the organizational framework of population-based programmes, delineated the steps in quality assured screening programme implementation and identified the merits and demerits of different screening tests and policies based on evidence. We expected the present report to reflect the level of uptake of the new screening tests and policies in the EU member states.

In breast cancer screening, the current evidence of effectiveness has been reported adequate not only in the age 50-69 but also 70-74 years (IARC Handbook Vol 15, 2016). This means that the EU Member States need to consider if widening the target age of the population-based programmes should be extended. Mammography is universally practiced as the screening test for breast cancer in the EU with a few countries using clinical breast examination (CBE) or ultrasound as an adjunct without any clear evidence of their benefit. It is very encouraging to see that most of the countries with population-based programmes have switched to digital mammography.

In cervical cancer screening, there is growing evidence that screening women also older than 64 years is effective.[46-50] HPV detection tests as the primary screening tests are being introduced gradually in many of the EU countries mostly on regional basis and/or targeting a narrower age group. It will be very interesting to see the impact of introduction of HPV test and also HPV vaccination in the EU countries in the coming years. The oldest cohorts of the vaccinated girls will shortly enter the screening ages. Integration of vaccination and the screening programmes will be of great importance not only to assess the efficacy of the vaccines but also to determine the most cost-effective screening strategies for the vaccinated women. Co-testing with cytology and HPV tests is still being practiced in some of the member states despite the clear recommendations against their use.

The EU guidelines on quality assurance for colorectal cancer screening[15] identified FIT as superior to the gFOBT test in terms of better detection rates and positive predictive values and also due to the logistic advantages. Majority of the member states are using FIT to initiate the programmes, or are switching from gFOBT following the guidelines. The advantages of endoscopy to expand the screening interval and to perform resection of polyps, adenomas and early invasive cancers at the same setting have lead some countries

to introduce endoscopy as the primary screening test; total colonoscopy has been adopted in Austria, Czech Republic, Germany, Greece and Poland, although only in Poland the test is offered as a primary screening test in the context of an organized population-based programme. Sigmoidoscopy has been adopted in the context of population-based programmes in England and Italy.

However, the data about the real-life effectiveness of colorectal cancer screening programmes in the Member States is still limited and therefore, information on the cost-effectiveness and other aspects in relation with the national screening policies remain uncertain.

5.5.5. Barriers to and prospects for further improvement

Whereas a large majority of the Member States indicated that they already adhere to or intend to adhere to many of the items in the Council Recommendation, exceptions to this substantial agreement were reported for a number of points dealing with acceptance (coverage of the examinations), monitoring screening programmes and scientific-level investigations relevant for evaluating effectiveness and adverse effects and e.g. introduction of available novel screening tests.

The positive experience with the Council Recommendation in encouraging successful implementation of complex population-based programmes reaching large segments of the European population with highly specialized multidisciplinary services integrating a broad range of health care providers, regulators and other institutions should be taken into account in future efforts to improve the control of cancer and other chronic disease in the EU.

In particular, future community efforts should recognize the importance of a translational phase permitting appropriate integration of new preventive or therapeutic strategies into existing health care systems and programmes. The effectiveness of appropriately integrated strategies should be assessed in carefully designed pilot projects within population-based settings before new programmes or modifications of existing programmes are introduced. Pan-European collaborations in such translational efforts has the potential to accelerate health improvements across the EU by avoiding unnecessary duplication of effort and by focusing available resources on common problems.

6. Conclusions and recommendations

EU member states have adopted significant measures to deliver cancer screening services to their respective populations as per the European Council recommendation. The second report on the status of implementation of the cancer screening programmes in the EU Member States describes an exceptionally large preventive action encompassing 28 countries, aiming to reduce the mortality from breast, cervical and colorectal cancers as well as the incidence for cervical and colorectal cancers.

The second report has not only highlighted the status of the screening programmes and the volume of screening ongoing in the EU member states but also have identified a set of essential indicators that need to be continuously monitored to ensure quality improvement. This would prove useful to gradually extend the programme coverage, improve quality and will also offer a basis for enhancing screening effectiveness in the Union. There is a great scope of improving the quality of data by the introduction of robust health information systems linking the screening programmes with existing cancer and mortality registries. The barriers to access the screening services by the populations and also to deliver quality assured services in a population oriented approach need to be assessed and addressed through pragmatic public health initiatives.

The cancer screening programmes recommended by the EU Council in 2003 are based on scientific evidence of efficacy. Efficacy is a necessary but not a sufficient condition for offering screening to the target population. The balance between harms and benefits should be clearly demonstrated to be in favor of the benefits and the programme should be cost-effective, affordable and acceptable for the population. Monitoring and evaluation of the performance and the outcomes of screening, conducting appropriate research studies, synthesis of evidence and assessing the criteria for decision-making must be a regular and continuous activity in order to improve the quality, increase the benefits and minimize the harms. It is not acceptable to deliver a health intervention without knowing the health (and social) impact. From this point of view the periodic analysis and reporting of the performance of the cancer screening programmes adopted by the vast majority of EU Member States is of great public health significance and should be sustained.

For continued efforts in improving the quality and impact of the cancer screening programmes in the EU Member States the following steps need to be considered:

- The updating of the status report on cancer screening in EU should be periodic, at regular intervals (1-3 years) according to the timeframe of data collections of the screening programmes. The formal contacts and the collaborative relationships have already been established during the preparation of the current report with a network of experts responsible for data collection, sharing and analysis. They are the key players in the process of improving quality and completeness of monitoring and evaluation of cancer screening in their respective Member States. The data collection tools and the protocols developed through the current project can be further standardized and these tools, protocols and the analyzed outputs can be made available through an interactive, web-enabled platform. Information on the organizational details, disease burden, prioritization, as well as on the evaluation studies on benefits and harms could be added to the reporting system. These will be valuable resources for the programme managers, the clinicians, the policy makers and the researchers.

- The data collection on cancer screening activities should be linked with the European Health Interview Survey (EUROSTAT-EHIS) and National Health Interview Surveys to obtain more precise information on attendance and intervals in spontaneous and organized screening settings. Official contacts should be promoted with national institutes of population sciences and statistics to introduce specific questions on cancer screening frequency and intervals, if not already included, and to standardize definitions and data collection procedures at the EU

level. A complementary strategy is to include data on testing and management of the screening process which are not yet linked and to use, when available, the systematic population-based screening registers which include data on spontaneous screening, as recommended in the quality assurance guidelines for cervical cancer screening since 2008.

- Efforts need to be made to ensure consistency and enhanced quality of the data collected for the screening reports. The great variability of the performance indicators observed across the Member States (e.g. the further assessment rate for breast cancer for initial screening ranged between 2.9% and 19.8%) can be explained not only by the different referral criteria, previous opportunistic screening, testing of the symptomatic population, quality of screening and diagnostic tests and different background incidence but also by different systems of documentation and reporting. Such inconsistencies, existing for some indicators for breast, colorectal and cervical cancer screening should be investigated and steps should be taken at the country and EU levels for reducing unjustified differences. There is a great role of appropriate use of the Information Technology for fail-safe mechanism of data collection and reporting.

- The reference standards for the quality and the process indicators of the screening programmes at the EU level should be developed and adopted, starting from the achievable performances of well established screening programmes, reported in the present document, and on the European guidelines on quality assurance in cancer screening and their future updates. Enlisting the minimum acceptable standards for the core indicators will greatly help the new programmes to organize their strategies and quality assurance plan. It is also essential to score the harms (and not achieved benefits), which are associated with poor performance. Adoption of reference standards at the EU level will require standardization of the definitions and the classifications. In the present report, the numerators and denominators of the measured indicators have been defined in order to collect comparable information future. Nevertheless definitions need continuous updating as new screening tests and technologies are introduced in the screening programmes, new diagnostic techniques are adopted and the diagnostic classifications of invasive and pre-invasive lesions are modified.

- There should also be mechanisms to initiate quality improvement projects and possible modifications to the programme organization and protocols, if the reported process indicators would not satisfy the standards. There should be reference standards for pilot programmes initiating or modifying the population-based programmes – e.g. to recommend when a pilot could be interpreted good enough for deciding national rollout.

- The comparability of the data collected from the various programmes needs to be enhanced. To compare the coverage (by invitation and by examination) or the detection rates in different setting could be misleading unless due consideration is given to the different tests, screening intervals and target ages that different programmes may adopt to screen for the same cancer site. The following policies may be adopted to enhance the comparability of the data across the Member States:
  - Standardization of the indicators by the target ages, adopting for each 5 years age groups.
  - Gradual introduction of the 10 years cumulative point estimates of the indicators for coverage, test detection rate, referral rate etc., for the same target ages, aiming to compare different screening strategies and protocols.
  - Stratification of the standards by type of test(s), when appropriate.
  - Obtaining the incidence and mortality rates of the diseases concerned from the population based cancer registries when possible.

- For the pre-invasive, screen detected lesions of cervix, colon and breast, appropriate non-aggressive diagnosis and treatments should be applied with proper follow up to mitigate the

harms caused by over-diagnosis and over-treatment. Early stages of screen detected invasive cancers should benefit from more conservative treatment in comparison with advanced disease, thus improving the quality of life of the patients. In order to increase the proportion of appropriate treatment (and to reduce over-treatment) monitoring of the treatment of screen detected cancers by stages is recommended. As a priority, linkage between the breast unit database and the cancer registries should be developed, starting from the existing experiences across Europe.

- Updating of the 2003 EU Council recommendations should be considered. New screening tests and protocols have been validated and introduced in the EU Member States since the Council recommendations of 2003. The European Code against Cancer (ECAC) was updated in 2015, recommending the participation to organized screening programmes. The scientific justifications for the recommendations on type of test, interval and target ages were also published in the ECAC report.[19] Also the Cancer Control Joint Action (CANCON) has considered criteria important for the national and EU-level decision-making on cancer screening programmes.[51] Probably it would be timely and appropriate for the European Council to review and update the 2003 recommendations and include policies for the regular updates of cancer screening guidelines and the screening report.

- Population-based cancer registries can provide valuable information on the quality and the impact of the cancer screening programmes by documenting the trend in the incidence and mortality from the relevant cancers. The registries should be strengthened in the countries already having population-based screening programmes or are contemplating to introduce the same. However, reductions in mortality and incidence (for cervical and colorectal cancers) are long term outcomes of cancer screening and one or more decades are needed to measure these long term outcomes for monitoring and evaluation. Screening, when performed, is only one of the determinants of mortality and of incidence. Therefore the evaluation of screening impact should consider the interaction between screening and quality of treatment for mortality and between screening and other risk prevention strategies for incidence, in a broader context. Information from screening, treatment, incidence and mortality should be integrated at population level and at individual level.

- In addition, it will be of immense value if future reports reflect detection modes and stage distribution of cancers. This would require the population-based cancer registries to classify the detection modes and collect stage information for breast, cervix and colorectal cancers according to the widely accepted stage classification schemes (e.g., the UICC stage groupings). This could be challenging but efforts need to be initiated at the earliest possibility to exploit the great potential of stage distribution information as an intermediate indicator of screening effectiveness and quality of life.

- Integration of the primary and secondary preventive strategies through comprehensive approaches is necessary not only to maximize the reduction in cancer burden but also to control the rising trend of other non-communicable diseases. Behaviour change communication strategies, supporting and encouraging adoption of healthy life styles, implementation of the recommendations of the Framework Convention of Tobacco Control (FCTC) and achieving high coverage of the vaccination against human papillomavirus (HPV) and hepatitis B should go hand in hand with quality assured cancer screening programmes to give healthy and quality life to all the citizens of the EU Member States.

- Information on resources in health care, affordability and corresponding prioritization should be further investigated. There is huge variation in the EU Member States in the financial resources available for health care – also for the cancer screening programmes that are generally financially demanding and require also appropriate personnel resources, information

technology and infrastructures in health care. It is possible that Member States having a lower level of resources may not afford all the three currently recommended cancer screening programmes at a time. Limited resources in health care may partially be responsible for no programme or a programme with only rather low coverage, being in place. Resource constraints may prevent some of the programmes to implement systematic screening evaluation and monitoring. For the Member States with long standing cervical and breast cancer screening programmes adding a third programme (colorectal cancer screening) may not be as difficult as it is in countries without any population-based cancer screening programmes and with significantly less resources in health care. Screening strategies to cope also with the limited resources settings need to be developed, and these strategies must be taken into account in every European recommendations in the future on cancer screening.

- Capacity building, training and research collaboration and networking at the level of screening coordination and evaluation units is recommended, in order to improve the current programmes. This could also involve collaboration in planning and piloting based on current guidelines and other related documents.

- The governance and the legal frameworks in the Member States should be improved to implement the above recommendations on the quality-assured implementation, monitoring and evaluation taking all the elements of well-organized cancer screening programmes into account.

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8. Figures and tables

8.1. Burden of breast, cervical and colorectal cancer in the European Union

Figure 1.1.1. European age-standardized **incidence rates of breast cancer** (E-ASR/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

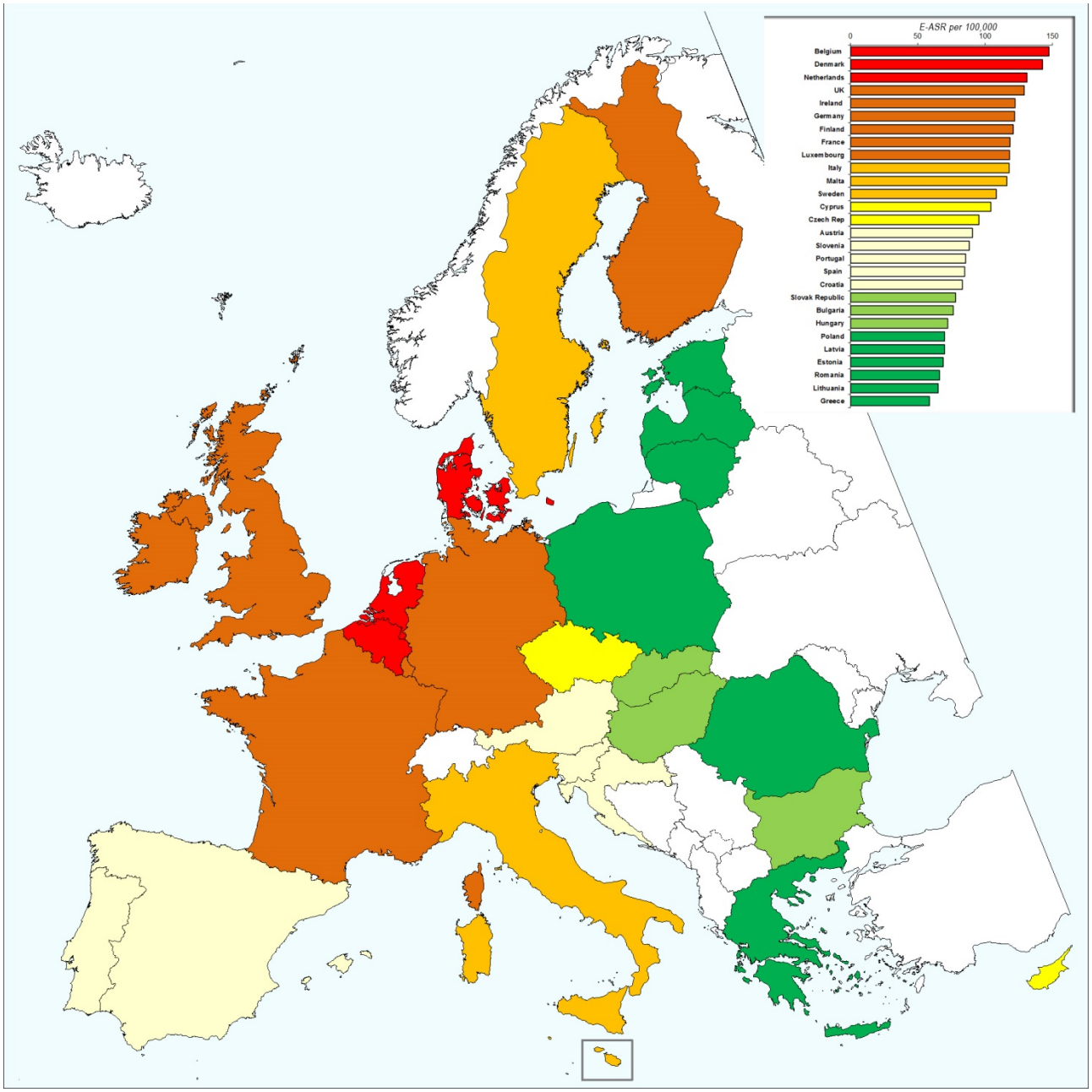
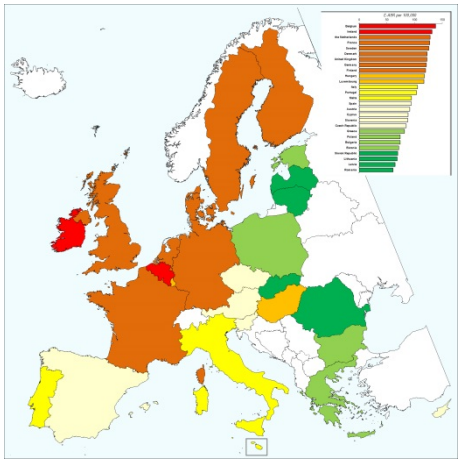


Figure 1.1.1 (a). European age-standardized **incidence rates of breast cancer** (E-ASR/100,000 women-years) in the 27 member states of the EU (estimates for 2006; direct standardization using the European reference population)



Sources: European Journal of Cancer 2013; 49:1374-1403; Ann Oncol 2007;18:581-92

Figure 1.1.2. European age-standardized **mortality rates of breast cancer** (E-ASR/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

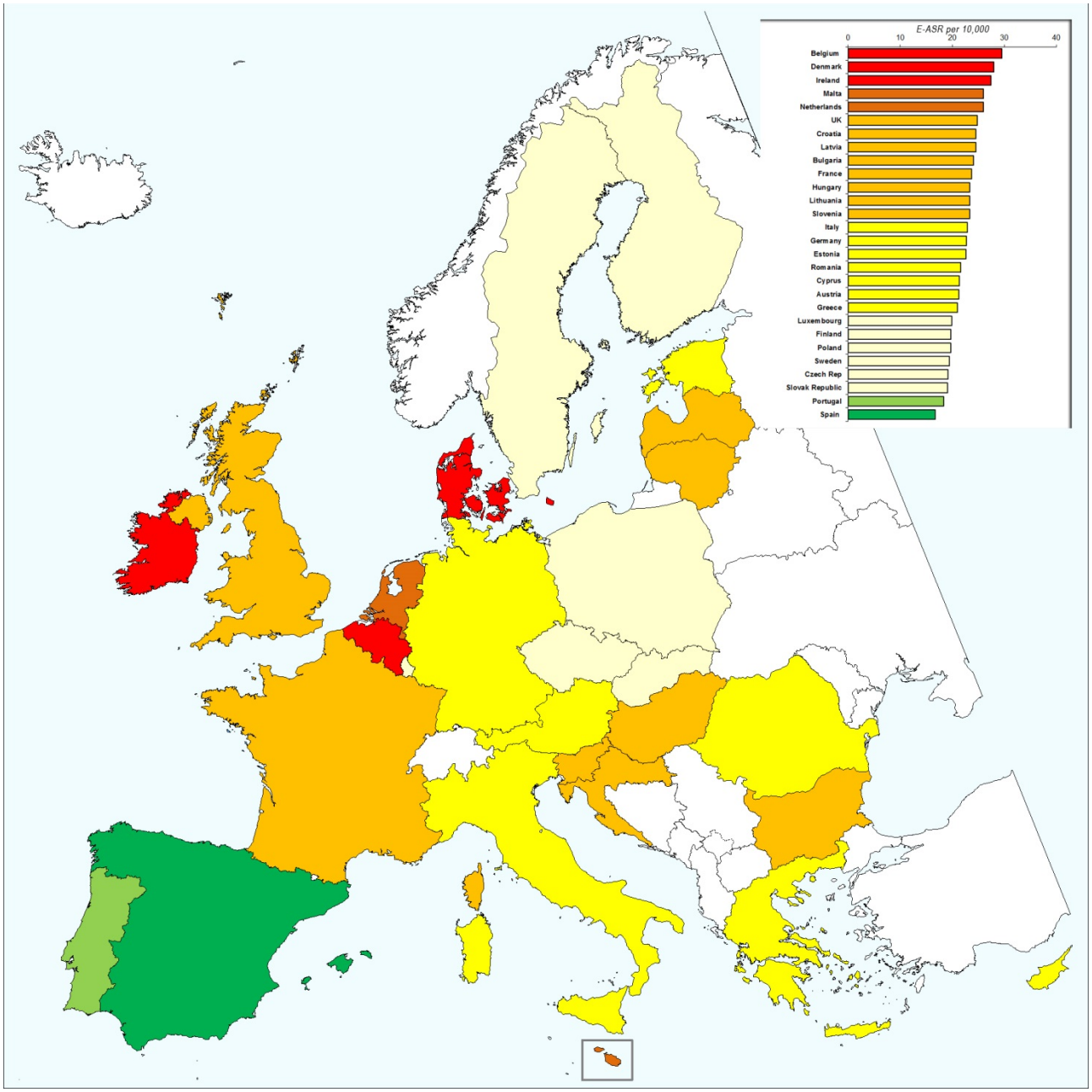
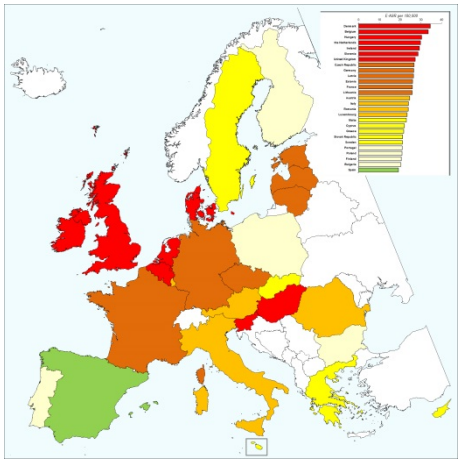


Figure 1.1.2 (a). European age-standardized **mortality rates of breast cancer** (E-ASR/100,000 women-years) in the 27 member states of the EU (estimates for 2006; direct standardization using the European reference population)



Sources: European Journal of Cancer 2013; 49:1374-1403; Ann Oncol 2007;18:581-92

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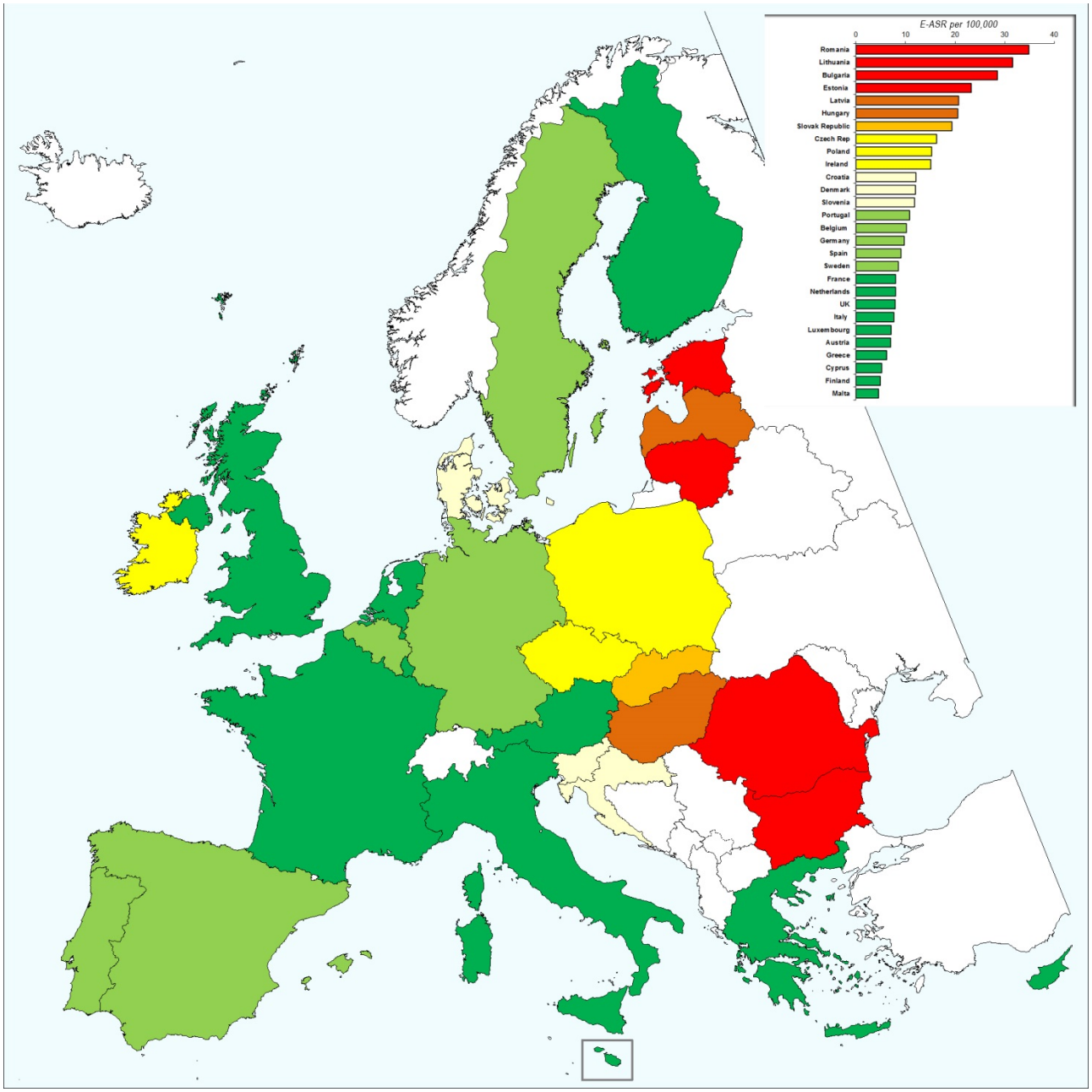

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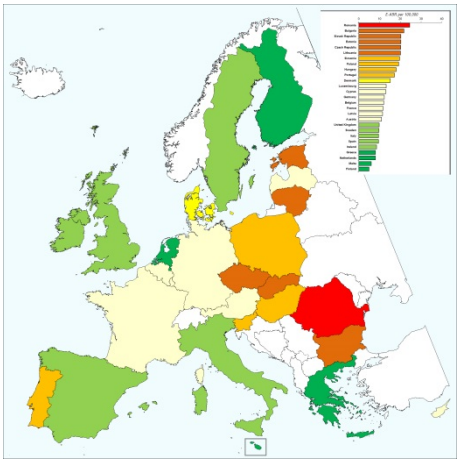


Sources: European Journal of Cancer 2013; 49:1374-1403; Ann Oncol 2007;18:581-92

Figure 1.2.2. European age-standardized **mortality rates of cervical cancer** (E-ASR/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

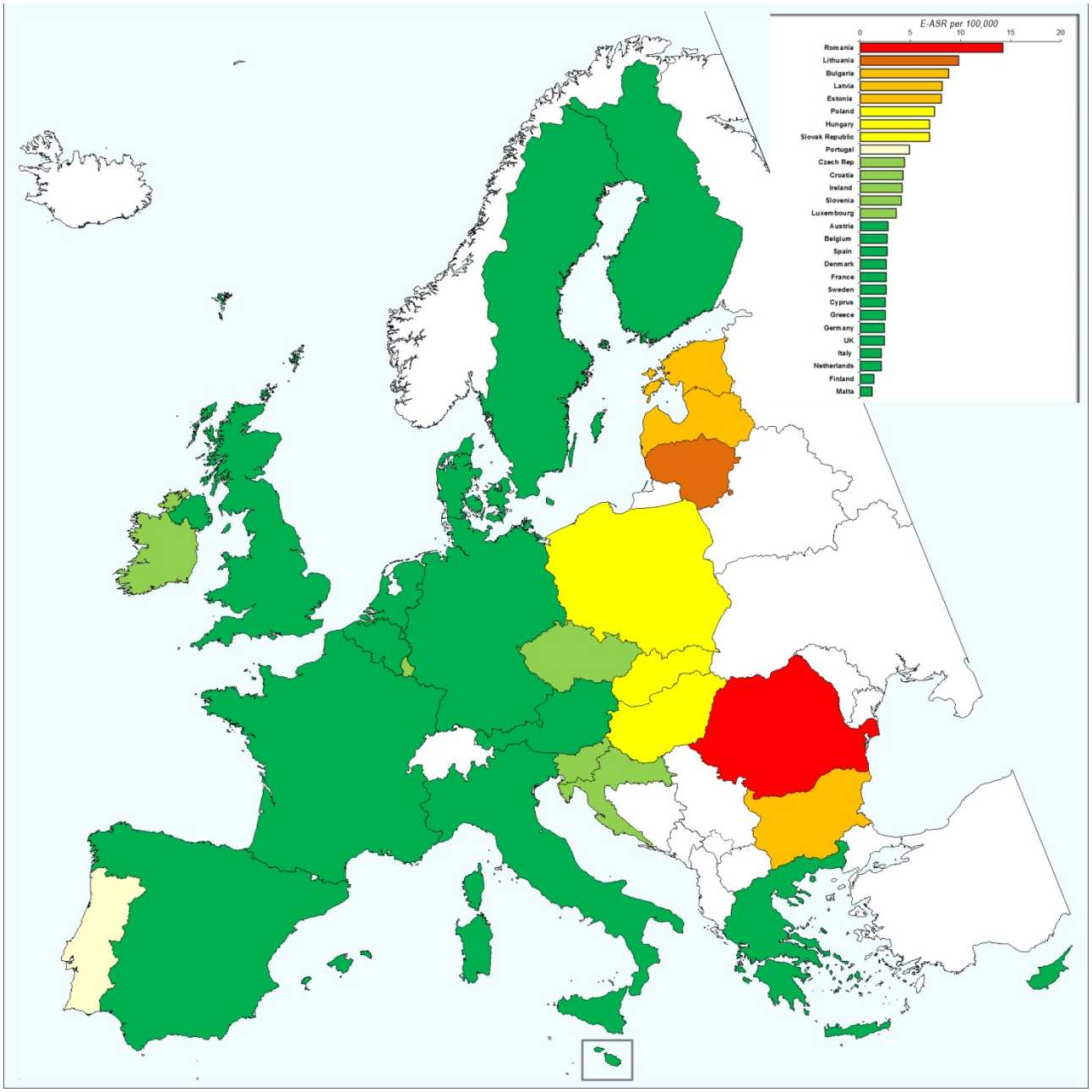
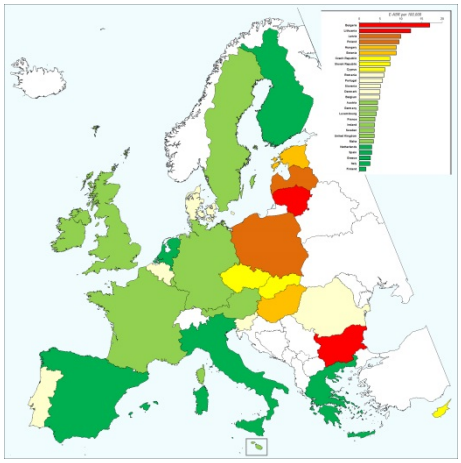


Figure 1.2.2 (a). European age-standardized **mortality rates of cervical cancer** (E-ASR/100,000 women-years) in the 27 member states of the EU (estimates for 2006; direct standardization using the European reference population)



Sources: European Journal of Cancer 2013; 49:1374-1403; Ann Oncol 2007;18:581-92

Figure 1.3.1. European age-standardized **incidence rates of colorectal cancer in women** (E-ASR/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

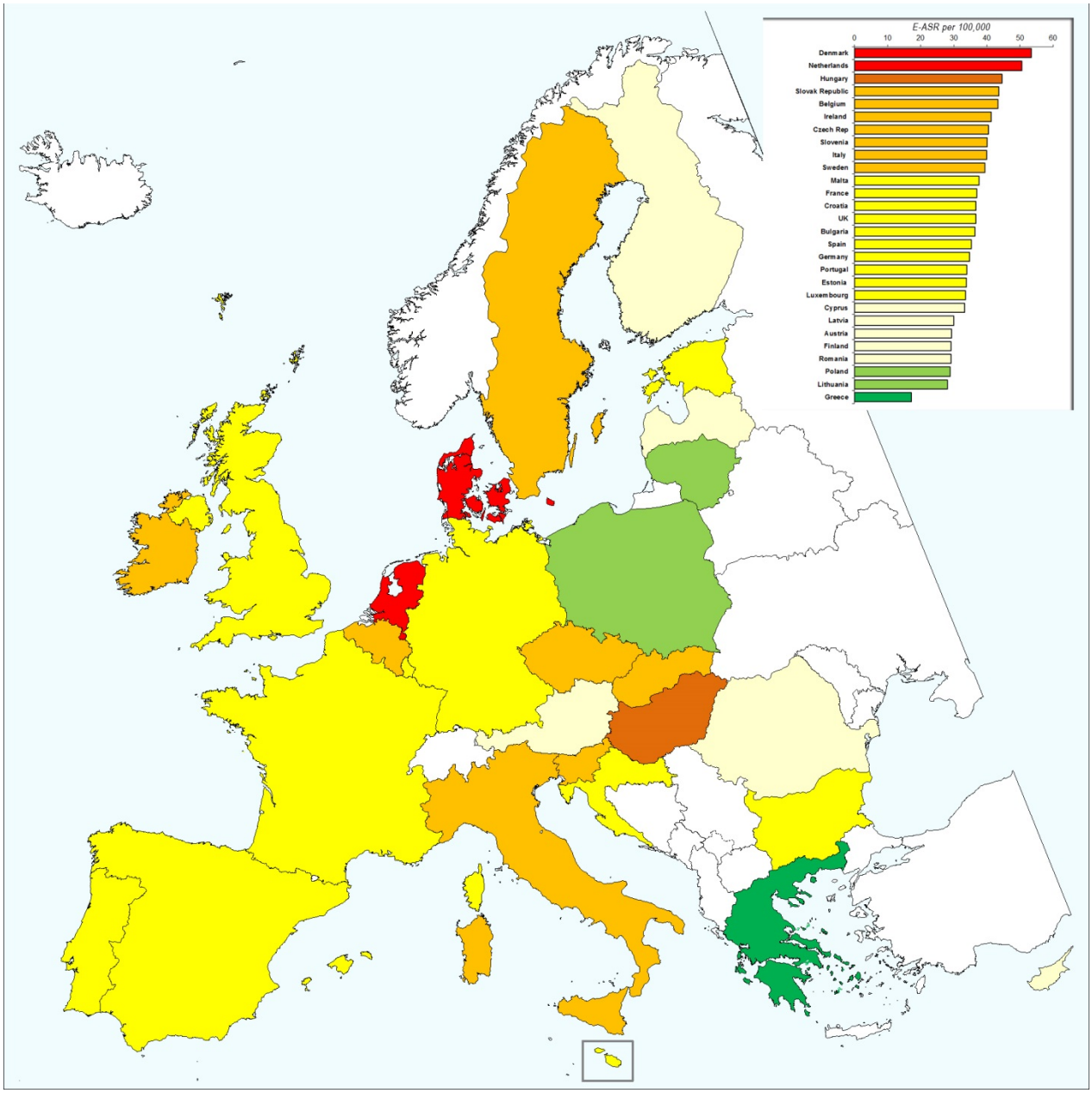
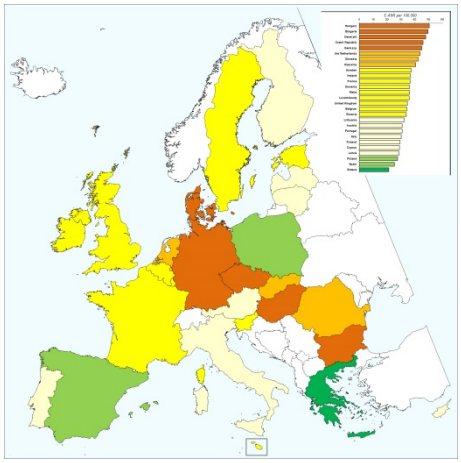


Figure 1.3.1 (a). European age-standardized **incidence rates of colorectal cancer in women** (E-ASR/100,000 women-years) in the 27 member states of the EU (estimates for 2006; direct standardization using the European reference population



Sources: European Journal of Cancer 2013; 49:1374-1403; Ann Oncol 2007;18:581-92

Figure 1.3.2. European age-standardized **incidence rates of colorectal cancer in men** (E-ASR/100,000 men-years) in the 28 members states of the EU (estimates for 2012; direct standardization using the European reference population)

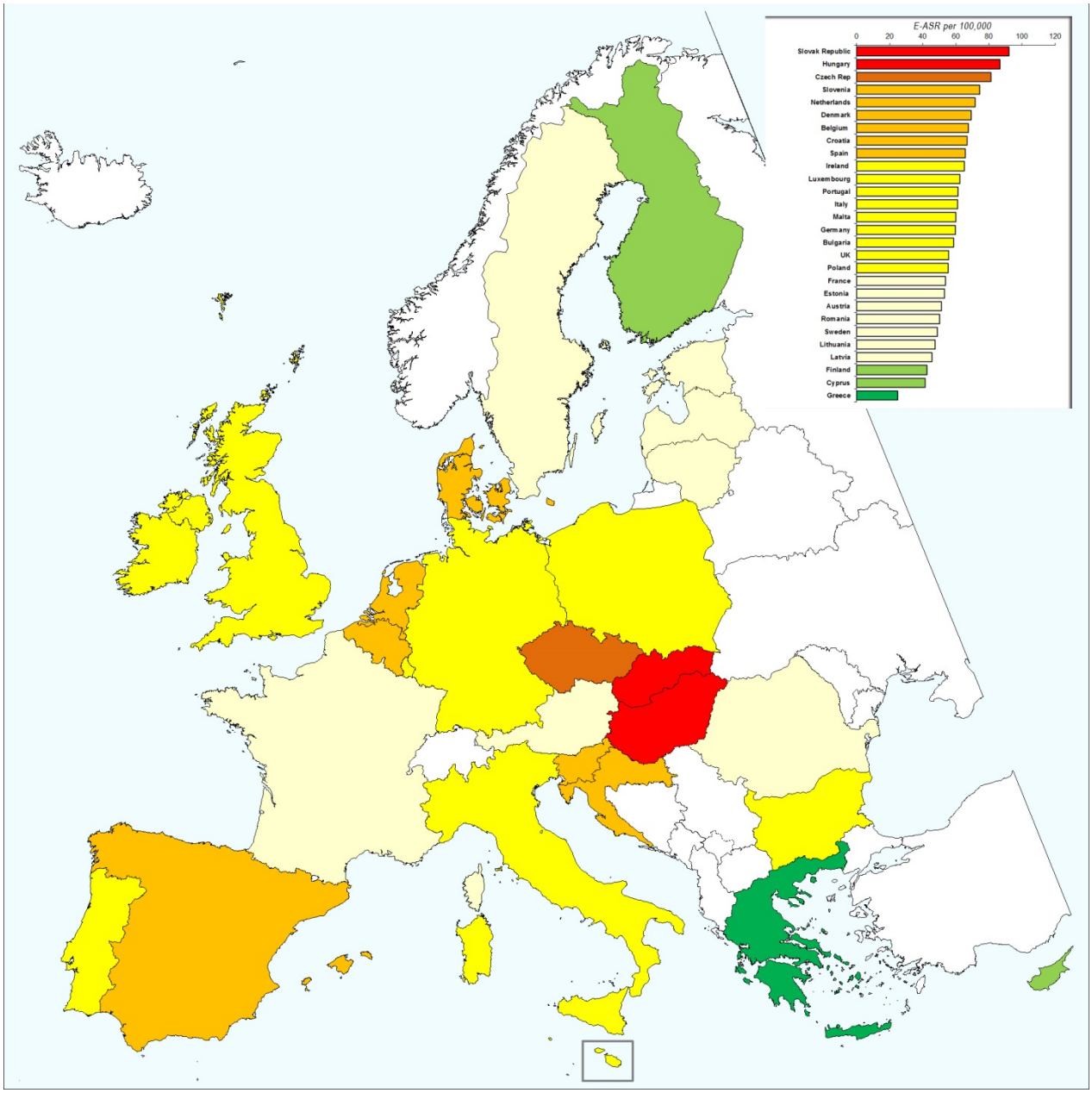
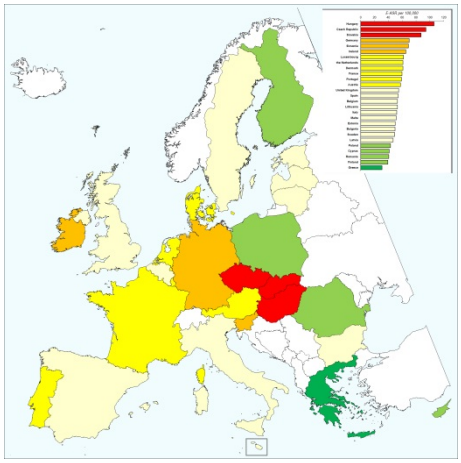


Figure 1.3.2 (a). European age-standardized **incidence rates of colorectal cancer in men** (E-ASR/100,000 men-years) in the 27 member states of the EU (estimates for 2006; direct standardization using the European reference population)



Sources: European Journal of Cancer 2013; 49:1374-1403; Ann Oncol 2007;18:581-92

Figure 1.3.3. European age-standardized **mortality rates of colorectal cancer in women** (E-ASR/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

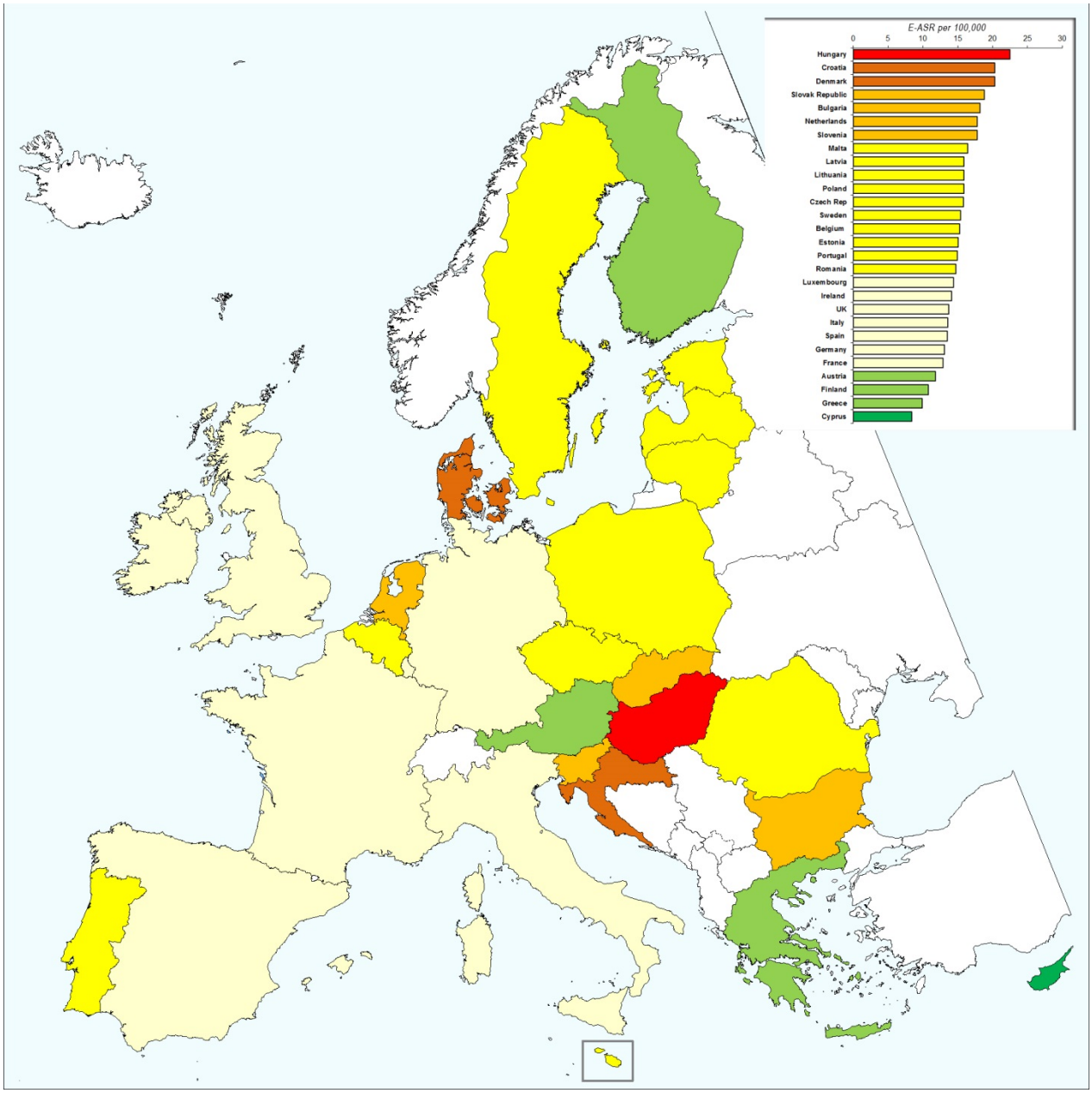
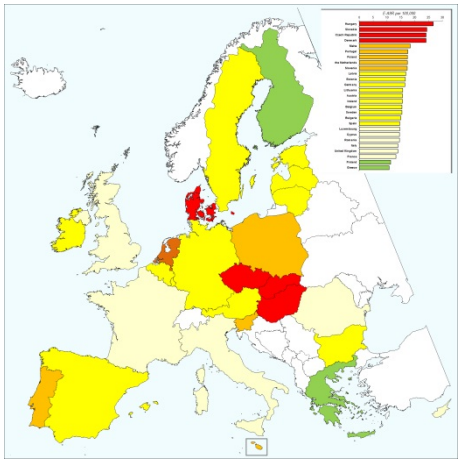


Figure 1.3.3 (a). European age-standardized **mortality rates of colorectal cancer in women** (E-ASR/100,000 women-years) in the 27 member states of the EU (estimates for 2006; direct standardization using the European reference population)



Sources: European Journal of Cancer 2013; 49:1374-1403; Ann Oncol 2007;18:581-92

Figure 1.3.4. European age-standardized **mortality rates of colorectal cancer in men** (E-ASR/100,000 men-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

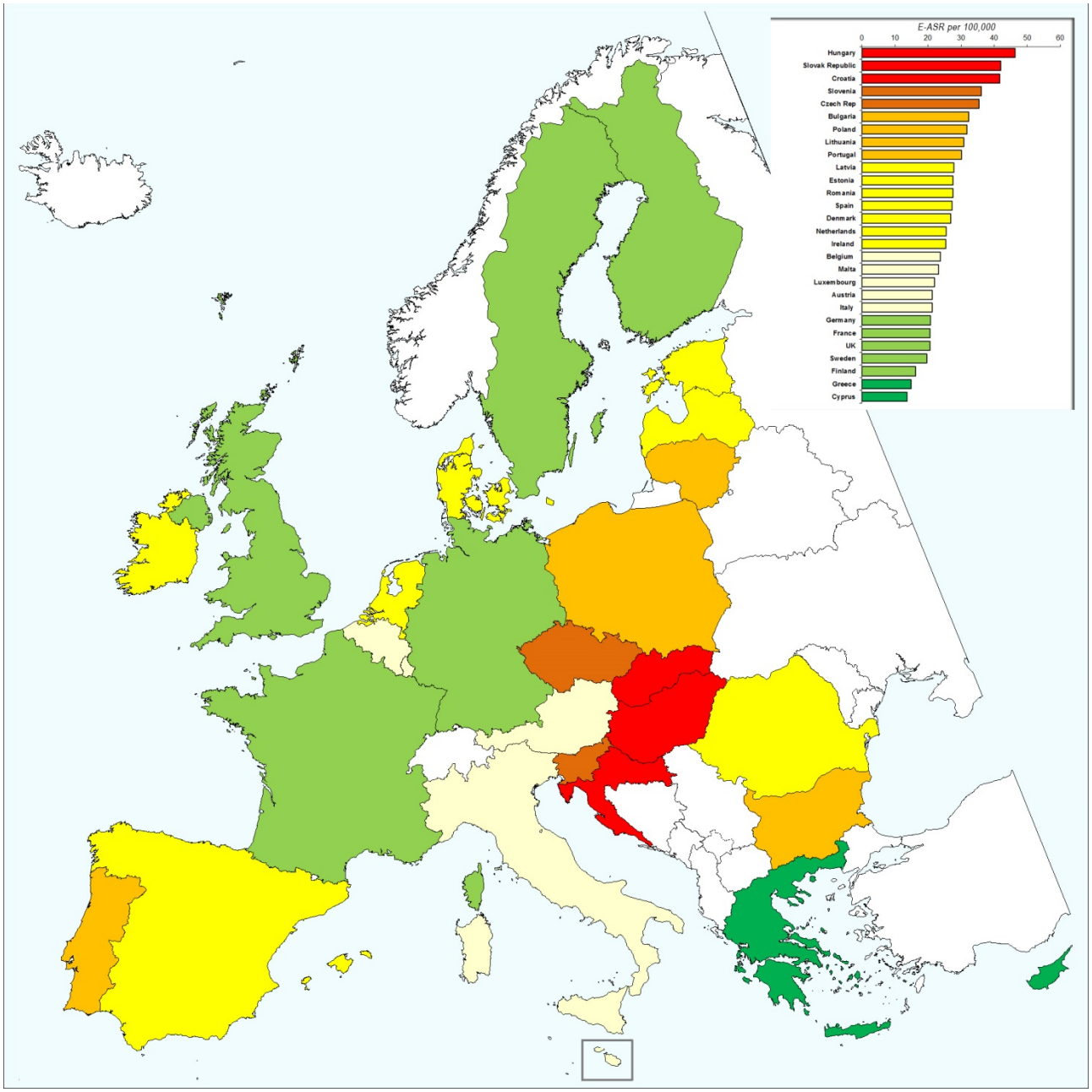
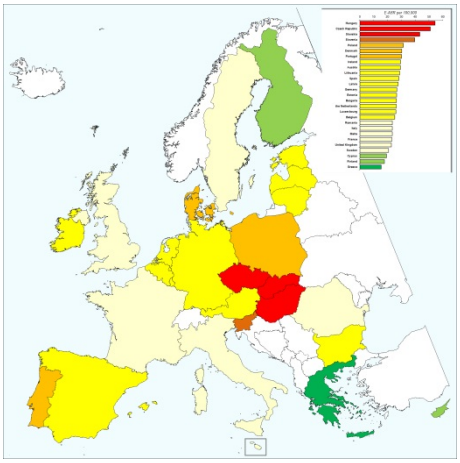
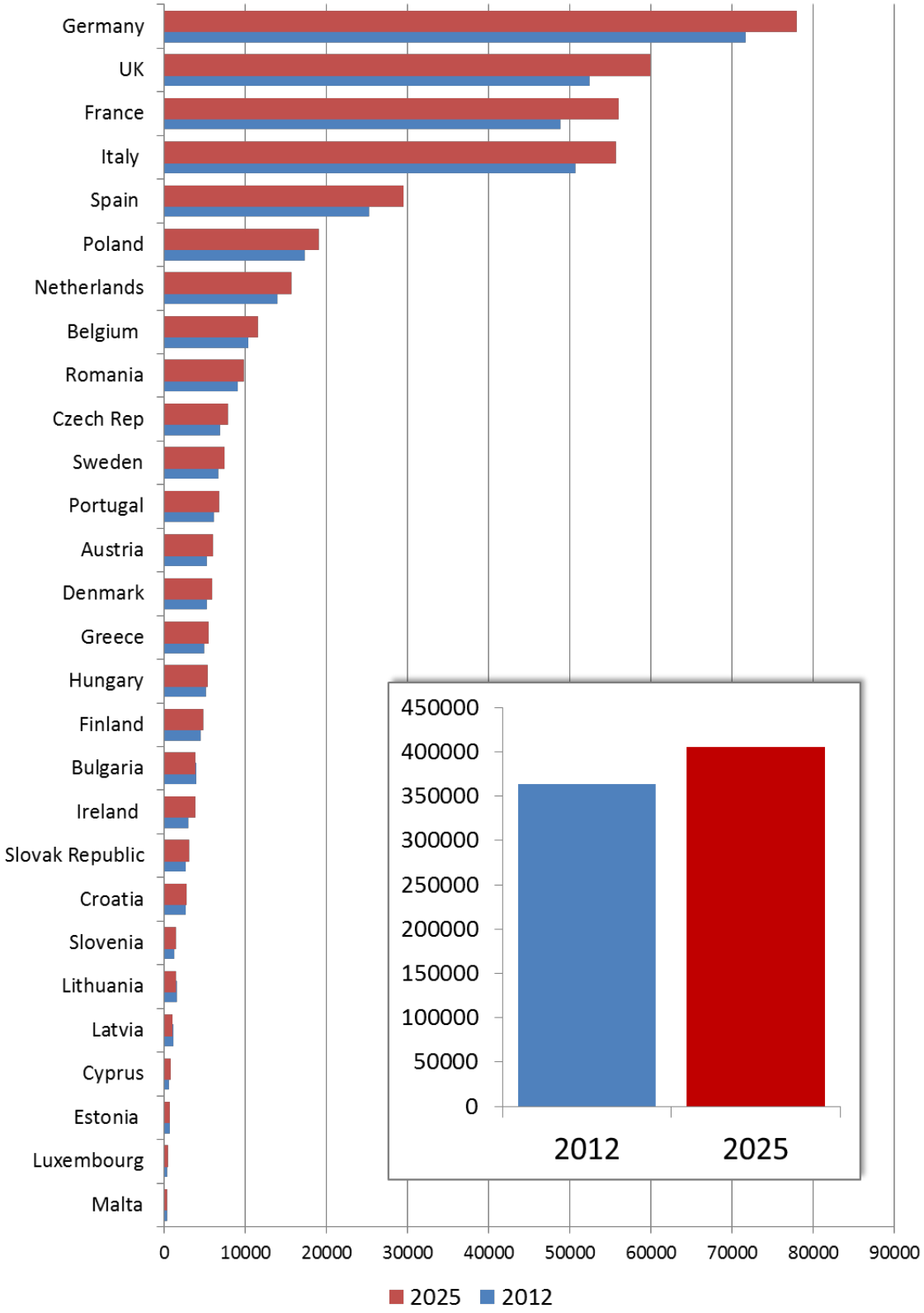


Figure 1.3.4 (a). European age-standardized **mortality rates of colorectal cancer in men** (E-ASR/100,000 men-years) in the 27 member states of the EU (estimates for 2006; direct standardization using the European reference population)



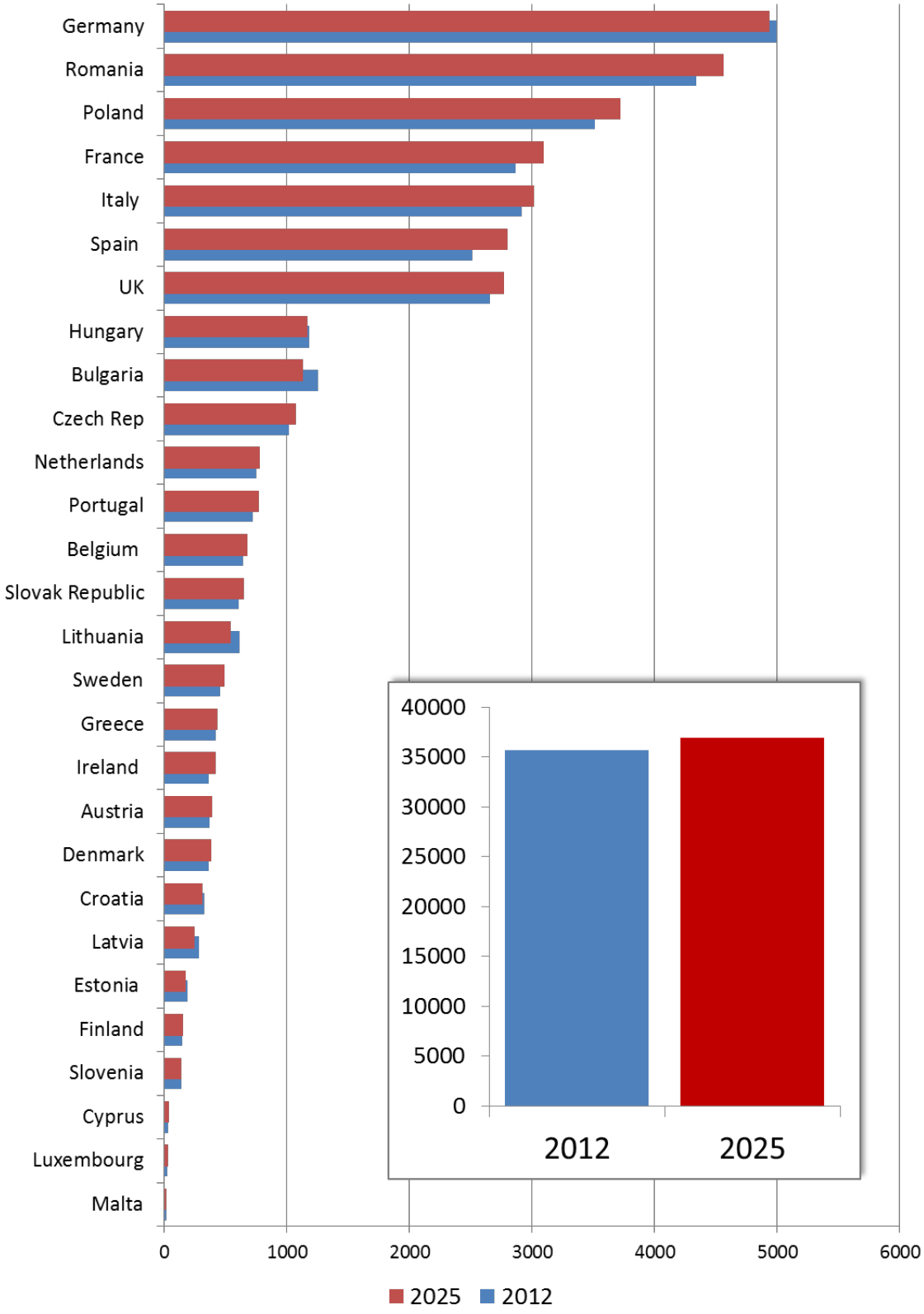
Sources: European Journal of Cancer 2013; 49:1374-1403; Ann Oncol 2007;18:581-92

Figure 1.4.1. Estimated number of **new breast cancers in women** in the EU countries in 2025 compared to 2012. (Population forecasts were extracted from the *United Nations, World Population prospects, the 2012 revision)*



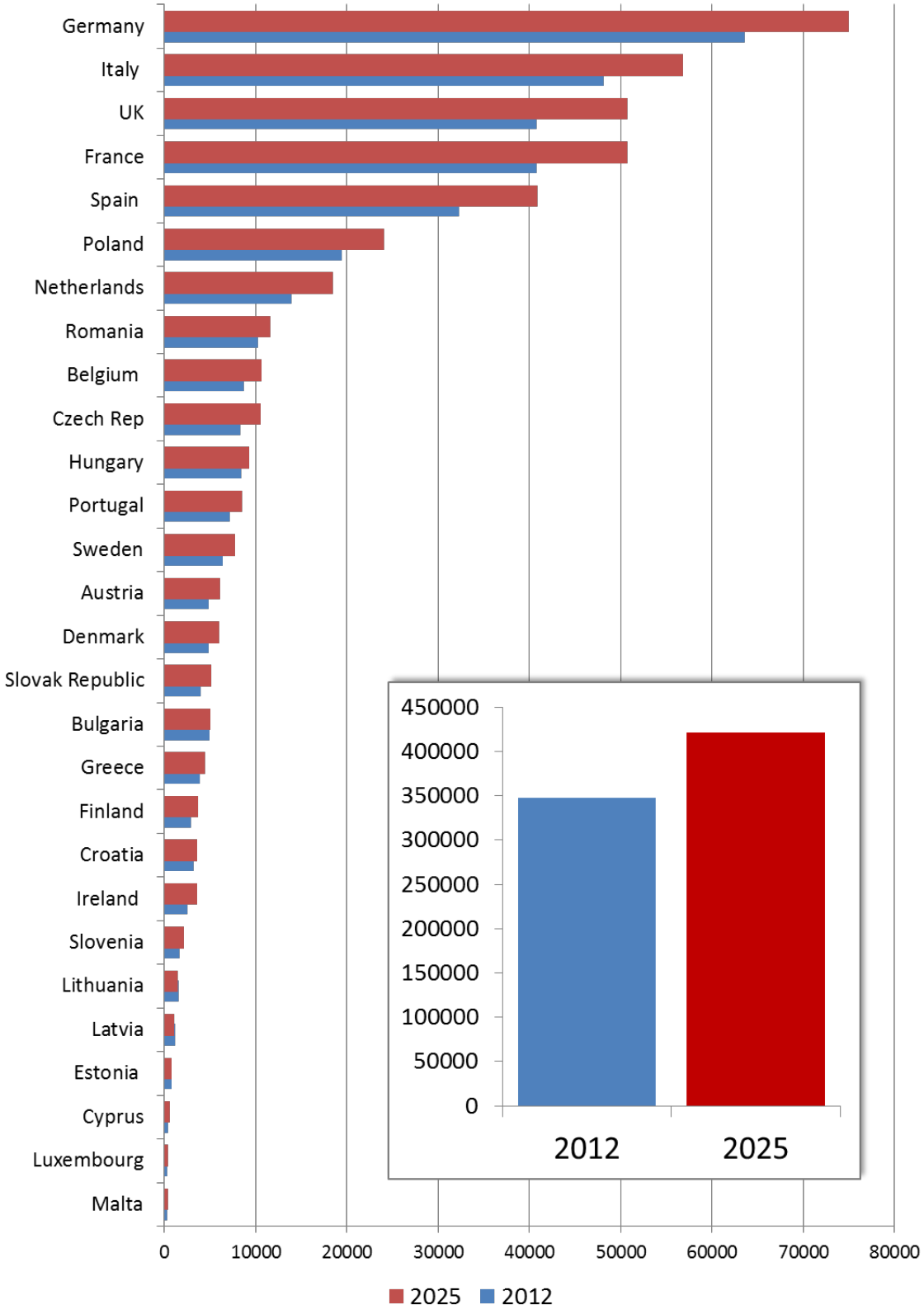
Source: GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC Cancer Base No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2013. Available from: http://globocan.iarc.fr, accessed on 22/March/2016.

Figure 1.4.2. Estimated number of **new cervical cancers in women** in the EU countries in 2025 compared to 2012. (Population forecasts were extracted from the *United Nations, World Population prospects, the 2012 revision)*



Source: GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC Cancer Base No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2013. Available from: http://globocan.iarc.fr, accessed on 22/March/2016.

Figure 1.4.3. Estimated number of **new colorectal cancers in women and men** in the EU countries in 2025 compared to 2012. (Population forecasts were extracted from the *United Nations, World Population prospects, the 2012 revision)*



Source: GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC Cancer Base No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2013. Available from: http://globocan.iarc.fr, accessed on 22/March/2016.

Table 1.1	Burden of breast and cervical cancer in women in the EU member states Cases and deaths and European age-standardized rates (E-ASR) by cancer type and member state							
	Breast cancer (2012)				Cervical cancer (2012)			
	Incidence		Mortality		Incidence		Mortality	
	cases x 100	E-ASR /100,000	deaths x 100	E-ASR /100,000	cases x 100	E-ASR /100,000	deaths x 100	E-ASR /100,000
Austria	52.5	90.7	15.1	21.3	3.6	7.0	1.8	2.8
Belgium	103.4	147.5	25.2	29.5	6.4	10.2	2.2	2.7
Bulgaria	39.3	76.3	13.9	24.1	12.5	28.5	4.4	8.8
Cyprus	26.4	83.0	9.2	24.5	3.3	12.1	1.4	4.3
Croatia	6.0	104.3	1.3	21.4	0.3	5.2	0.2	2.5
Czech Republic	68.5	95.5	16.2	19.2	10.2	16.3	3.2	4.3
Denmark	52.2	142.8	12.0	28	3.6	12.1	1.0	2.6
Estonia	6.6	69.0	2.6	22.6	1.9	23.3	0.8	8.1
Finland	44.8	121.0	8.6	19.7	1.4	4.9	0.5	1.4
France	487.6	118.6	119.3	23.7	28.6	8.0	11.7	2.6
Germany	716.2	122.0	168.3	22.7	50.0	9.8	15.7	2.4
Greece	49.3	58.6	21.4	21	4.2	6.2	2.1	2.5
Hungary	50.9	72.3	19.1	23.5	11.8	20.5	4.6	6.9
Ireland	29.0	122.4	7.0	27.4	3.6	15.1	1.0	4.3
Italy	506.6	118.0	128.0	22.9	29.2	7.7	10.2	2.0
Latvia	11.5	69.8	4.3	24.5	2.8	20.7	1.4	8.2
Lithuania	14.8	65.2	6.1	23.4	6.2	31.6	2.2	9.8
Luxembourg	3.6	118.2	0.7	19.9	0.2	7.1	0.1	3.7
Malta	3.1	116.2	0.8	26	0.1	4.6	0.0	1.1
Netherlands	139.0	131.3	31.6	26	7.5	8.0	2.4	2.1
Poland	172.6	69.9	53.7	19.7	35.1	15.3	18.6	7.4
Portugal	60.9	85.6	15.7	18.4	7.2	10.8	3.9	4.9
Romania	89.8	66.2	32.4	21.6	43.4	34.9	19.1	14.2
Slovak Republic	26.4	78.1	7.0	19.1	6.1	19.4	2.3	6.9
Slovenia	12.6	88.4	4.2	23.4	1.4	11.8	0.6	4.1
Spain	252.2	84.9	60.8	16.7	25.1	9.1	8.5	2.7
Sweden	66.2	108.2	14.5	19.5	4.5	8.6	1.9	2.6
United Kingdom	524.0	129.2	116.8	24.8	26.6	7.9	9.8	2.3
Totals	**3,616.1**		**915.9**		**336.8**		**131.4**	

Source: Ferlay J, Steliarova-Foucher E, Lortet-Tieulent J, Rosso S, Coebergh JW, Comber H, Forman D, Bray F. Eur J Cancer. 2013 Apr;49(6):1374-403. doi: 10.1016/j.ejca.2012.12.027.; EUCAN national estimates (eco.iarc.fr/eucan)

Table 1.2	Burden of colorectal cancer in women and men in the EU member states Cases and deaths and European age-standardized rates (E-ASR) by sex and member state							
	Women (2012)				Men (2012)			
	Incidence		Mortality		Incidence		Mortality	
	cases x 100	E-ASR /100,000	deaths x 100	E-ASR /100,000	cases x 100	E-ASR /100,000	deaths x 100	E-ASR /100,000
Austria	20.8	29.3	9.8	11.8	27.9	51.3	12.1	21.3
Belgium	38.9	43.4	16.7	15.3	48.0	67.5	18.4	23.8
Bulgaria	22.1	36.4	12.1	18.2	27.1	58.7	15.2	32.3
Cyprus	14.1	36.7	8.6	20.3	18.0	66.7	11.5	41.7
Croatia	2.1	33.2	0.6	8.4	2.3	41.6	0.8	13.6
Czech Republic	33.6	40.5	14.5	15.9	49.8	81.1	21.8	35.4
Denmark	23.0	53.4	9.8	20.3	25.4	69.2	10.2	26.9
Estonia	4.2	33.8	2.2	15.1	3.7	53.1	2.0	28.4
Finland	13.5	29.2	5.5	10.8	15.5	42.5	6.1	16.2
France	193.0	36.9	81.6	12.9	215.2	53.8	89.9	20.6
Germany	270.1	34.8	120.1	13.1	365.7	59.7	134.6	20.7
Greece	18.1	17.2	11.8	9.9	20.7	25.0	13.5	14.9
Hungary	36.9	44.6	20.7	22.5	47.5	86.7	25.9	46.3
Ireland	10.8	41.3	4.0	14.1	14.8	65.1	5.9	25.4
Italy	215.4	39.9	90.3	13.6	265.7	61.2	102.5	21.3
Latvia	6.3	30.0	3.6	15.9	5.3	45.5	3.3	27.8
Lithuania	7.9	28.1	4.9	15.9	7.7	47.4	5.0	30.8
Luxembourg	1.3	33.6	0.6	14.4	1.8	62.5	0.7	22.0
Malta	1.2	37.6	0.5	16.4	1.5	60.1	0.6	23.2
Netherlands	63.2	50.5	24.8	17.8	76.0	71.6	27.6	25.5
Poland	83.7	28.9	49.8	15.9	110.7	55.5	63.7	31.8
Portugal	29.2	33.8	15.6	14.9	42.1	61.4	22.4	30.1
Romania	45.0	29.2	24.5	14.7	57.6	50.3	32.3	27.5
Slovak Republic	16.2	43.6	7.4	18.8	23.5	92.2	10.5	42.0
Slovenia	6.9	40.1	3.6	17.9	9.3	74.5	4.6	36.1
Spain	129.8	35.3	59.6	13.5	192.6	65.6	87.4	27.3
Sweden	30.6	39.5	13.4	15.4	33.0	48.9	13.9	19.6
United Kingdom	181.6	36.7	74.7	13.7	226.0	55.7	87.3	20.6
Totals	**1,519.2**		**690.9**		**1,934.3**		**829.6**	

Source: Ferlay J, Steliarova-Foucher E, Lortet-Tieulent J, Rosso S, Coebergh JW, Comber H, Forman D, Bray F. Eur J Cancer. 2013 Apr;49(6):1374-403. doi: 10.1016/j.ejca.2012.12.027.; EUCAN national estimates (eco.iarc.fr/eucan)

8. Figures and tables

8.2. Status of data collection and index year of reporting

Figure 2.1. Snapshot of the web based data collection platform

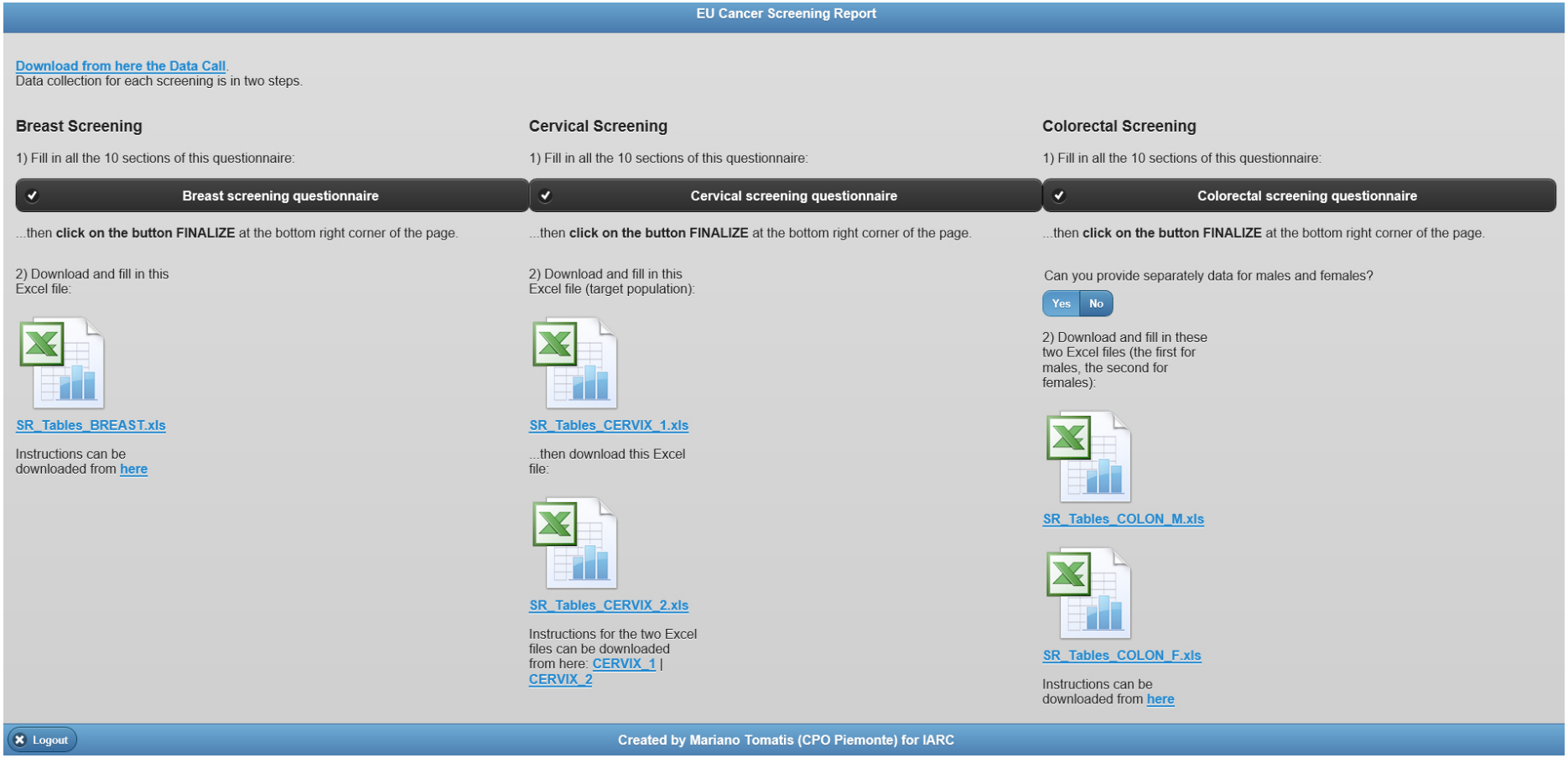


Table 2.1. Status of data collection from the different countries for the second report						
Member states	Response to call for data on screening programmes					
	BREAST		CERVIX		COLORECTUM	
	Questionnaire	Data Tables	Questionnaire	Data Tables	Questionnaire	Data Tables
Austria	✓	✓	✓	✓**	✓	x
Belgium	✓	✓	✓	✓	✓	✓
Bulgaria	✓	x	x	x	x	x
Croatia	✓	✓	✓	✓	✓	✓
Cyprus	✓	✓	✓	✓*	✓	x
Czech Republic	✓	✓	✓	✓	✓	✓
Denmark	✓	✓	✓	✓	✓	✓*
Estonia	✓	✓	✓	✓	✓	x
Finland	✓	✓	✓	✓	✓	✓
France	✓	✓	✓	✓	✓	✓
Germany	✓	✓	✓	x	✓	x
Greece	x	x	x	x	x	x
Hungary	✓	✓	✓	✓	✓	✓
Ireland	✓	✓	✓	✓	✓	✓
Italy	✓	✓	✓	✓	✓	✓
Latvia	✓	✓	✓	✓	✓	✓
Lithuania	✓	✓	✓	✓	✓	✓
Luxembourg	✓	✓	✓	x	✓	x
Malta	✓	✓	✓	x	✓	✓
Netherlands	✓	✓	✓	✓	✓	✓
Poland	✓	✓	✓	✓	✓	✓
Portugal	✓	✓	✓	✓	✓	✓
Romania	✓	✓	✓	✓**	✓	x
Slovak Republic	✓	✓*	✓	x	✓	✓*
Slovenia	✓	✓	✓	✓	✓	✓
Spain	✓	✓	✓	x	✓	✓
Sweden	✓	✓	✓	✓	✓	✓
United Kingdom	✓	✓	✓	✓	✓	✓

*Data-tables contained only the number of eligible population by age groups.

**Data-tables contained only the numbers of individuals screened by age-groups.

Table 2.2 Index years of reporting of the performance of breast, cervical and colorectal cancer screening			
Member state	**Breast cancer**	**Cervical cancer**	**Colorectal cancer**
	Index year	**Index year**	**Index year**
Austria	2014	2014	
Belgium			
Belgium Brussels	2013		2014 (Wal-Bru)
Belgium Wallonia	2013		
Belgium Flanders	2014	2014	2014
Bulgaria			
Croatia	2012/2014	2013	2013/2014
Cyprus		2013	
Cyprus Nycosia	2013		
Czech Republic	2013	2013	2013
Denmark	2013	2013	
Estonia	2014	2014	
Finland	2012	2012	2014
France	2012		2012
France 13 Departments		2010/2012	
Germany	2012		
Greece			
Hungary	2013	2013	2013
Ireland	2013	2012/2013	2013
Italy	2013	2013	2013
Latvia	2013	2014	2014
Lithuania	2014	2014	2014
Luxembourg	2013		
Malta	2013		2013
Netherlands	2013	2013	2014
Poland	2013	2013	2013
Portugal			
Portugal Alentejo	2013		2011
Portugal Azores		2013	
Portugal Centro			2009
Romania Cluj	2015	2012/2015	
Slovak Republic	2009		
Slovenia	2013	2013	2011/2012
Spain	2013		2013
Sweden		2013	
Sweden Norra	2013		
Sweden Södra	2013		
Sweden Stockholm Gotland	2013		2013
Sweden Sydöstra	2013		
Sweden Uppsala Örebro	2013		
SwedenVästra Götaland	2013		
United Kingdom			
UK England	2013/2014	2013/2014	2013
UK Northern Ireland	2013	2013/2014	2013/2014
UK Scotland	2013/2014	2013/2014	2013
UK Wales	2013	2013	2013

8. Figures and tables

8.3. Status of implementation and programme organization

Figure 3.1. Distribution of breast cancer screening programmes in the EU in 2016

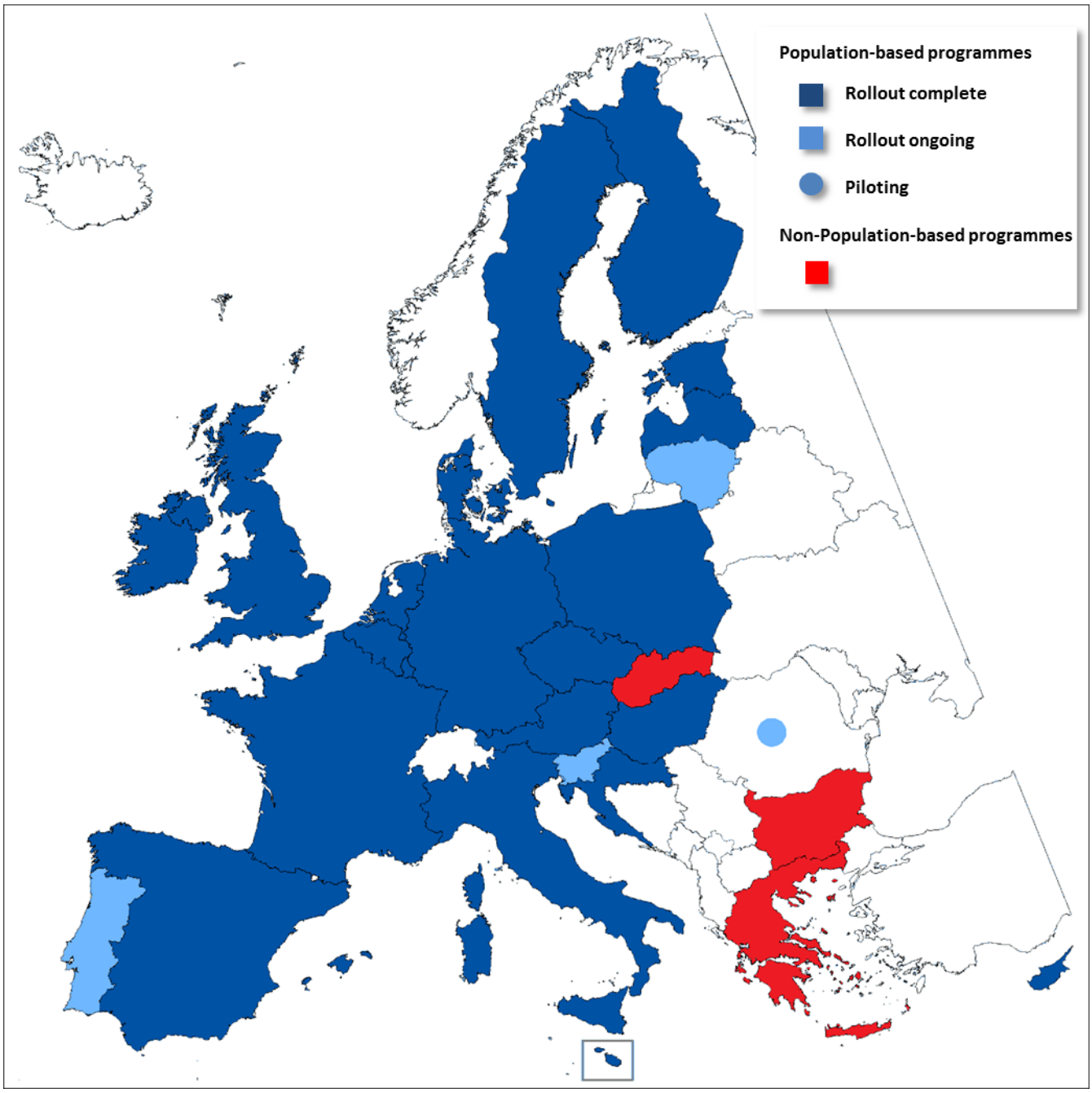


Figure 3.2. Distribution of cervical cancer screening programmes in the EU in 2016

Figure 3.3. Distribution of colorectal cancer screening programmes in the EU in 2016

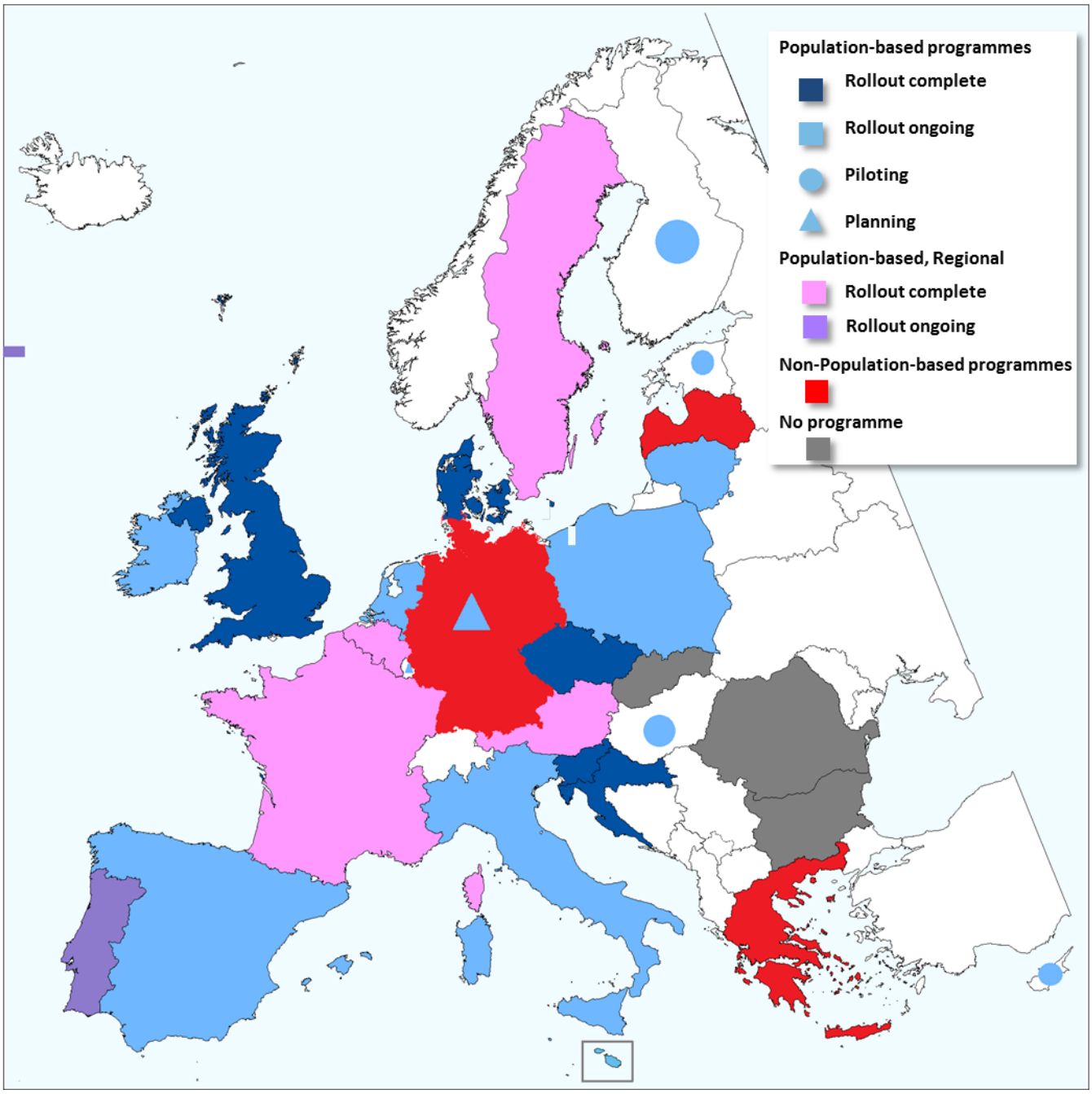
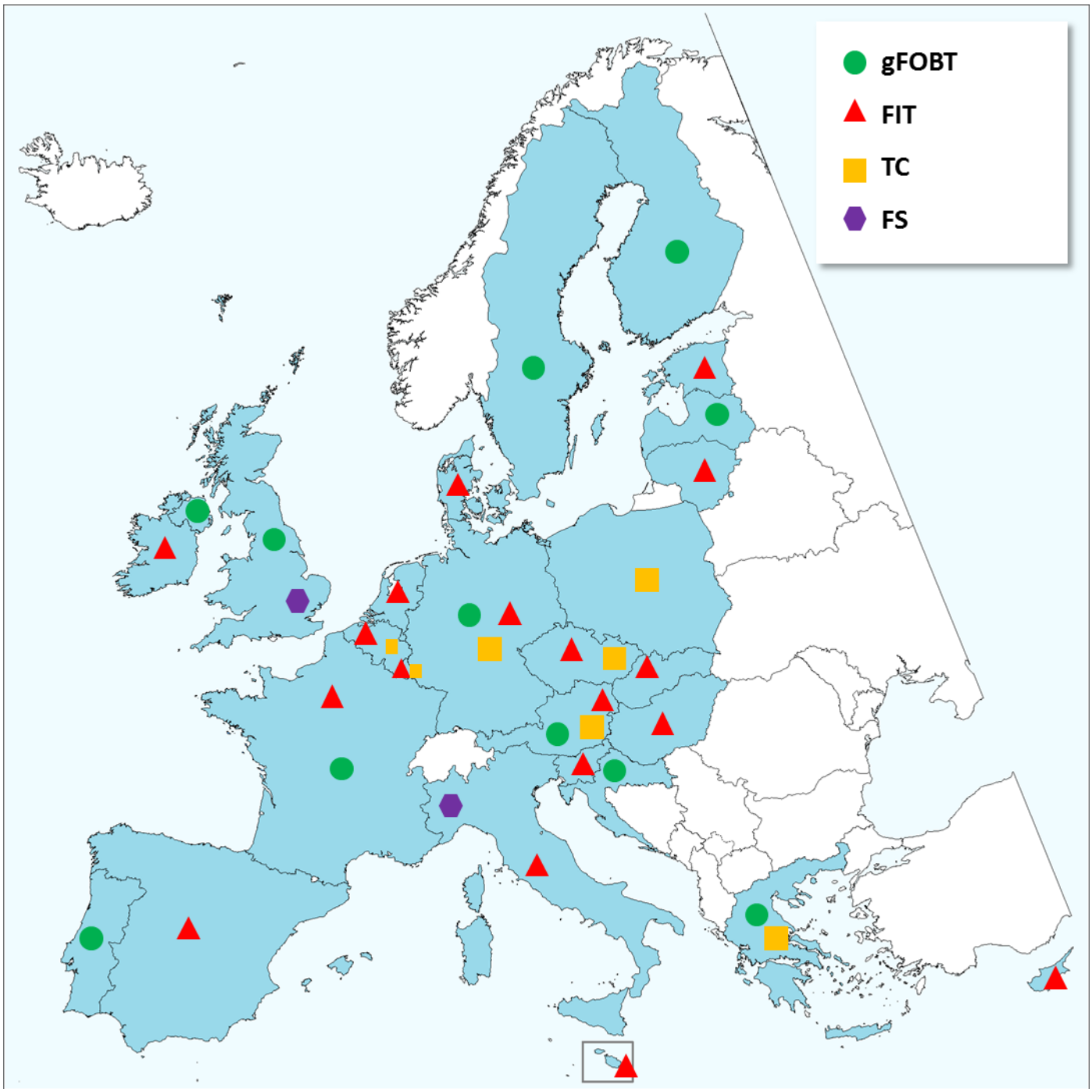


Figure 3.4. Tests used for colorectal cancer screening in the EU member states in 2016



Legend - gFOBT: Guaiac Fecal Occult Blood Test; FIT: Fecal Immunochemical Test; FS – Flexible Sigmoidoscopy; TC – Total Colonoscopy.

Table 3.1.1. Breast cancer screening programmes in the EU member states:
general information, information on programme organization and mode of invitation to the participants for screening and further assessments

Member states	General information				Programme organization							Invitations for screening and further assessment			
	Year of programme initiation	Target age (years)	Screening interval (years)	Is there a population based programme?	Is there a national screening policy?	Is the policy documented as a law or an official recommen-dation?	Is there a team resp. for implemen-ting the policy?	Is the programme publicly funded?	Is health insurance a source of funding?	Are the screening tests provided free of charge?	Are the diagnostic tests provided free of charge?	Does the programme issue individual invitations through the screening registries?	Are the invitations sent as letters?	Does the invitation include a fixed appoint-ment date?	Does the programme actively invite the screen positives for further assessment?
Austria	2014	45-69	2	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	✓
Belgium	2001[1]	50-69	2	✓	✓	Law	✓	✓	✓	✓	×	✓	✓	✓[1]	×[1]
Bulgaria	NA	50-69	—	×	×	NA	NA	NA	NA	✓	✓	NA	NA	NA	NA
Croatia	2006	50-69	2	✓	×	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓
Cyprus	2003	50-69	2	✓	✓	OR	✓	✓	×	✓	×	✓	✓	×	✓
Czech Republic	2002	45+[2]	2	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	✓
Denmark	2008	50-69	2	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	✓	✓
Estonia	2003	50-64	2	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	✓
Finland	1987	50-69	2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	✓	✓
France	2004	50-74	2	✓	✓	OR	✓	✓	✓	✓	×	✓	✓	×	✓
Germany	2005	50-69	2	✓	✓	Law and OR	✓	✓	✓	✓	✓	✓	✓	✓	✓
Greece	NA	40+	2 (40-49); 1 (50+)	×	✓	OR	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hungary	2001	45-64	2	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ireland	2000	50-69	2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	✓	✓
Italy	1990	45-74[3]	1 (45-49); 2 (50-74)	✓	✓	Law	✓	✓	×	✓	✓	✓	✓	✓	✓
Latvia	2009	50-69	2	✓	✓	Law	✓	✓	×	✓	✓	✓	✓	×	×
Lithuania	2005	50-69	2	✓	✓	Law	×	✓	✓	✓	✓	×[4]	✓[4]	×	×
Luxembourg	1992	50-69	2	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	✓
Malta	2009	50-69	3	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	✓	✓
Netherlands	1989	50-75	2	✓	✓	Law	✓	✓	×	✓	✓	✓	✓	✓	×
Poland	2006	50-69	2	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	×	✓
Portugal	1990	45-74[5]	2	✓	✓	OR	✓	Partially	×	✓	✓	✓	✓	×	✓
Romania	2015	50-69	—	✓	✓	OR	✓	✓	×	✓	✓	×[6]	✓	✓	✓
Slovak Republic	NA	—	—	×	×	NA	NA	NA	NA	✓	✓	NA	NA	NA	NA
Slovenia	2008	50-69	2	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spain	1990	50-69[7]	2	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sweden	1986	40-74	1.5-2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	✓	✓
United Kingdom	1988[8]	50-70	3	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	✓	✓

Legends: ✓ = yes, x = no, NA = Not applicable, OR = Official recommendation

*[1]In **Belgium** the population based programme started in 2001 in the Flemish region and 2002 in the Wallonia and Brussels regions. Only in the Flemish Region the letters have a pre-fixed appointment. Screen positive patient is informed through the treating physician to have further investigation; [2]In **Czech Republic** the invitations are sent only to the women upto 70 years of age; [3]In **Italy** the target age is 45-74 years only in Piemonte and Emilia Romagna. In other regions the target-age is 50-69 years; [4]In **Lithuania** the invitation is sent through primary health care. It may or may not be by letter depending on the organization sending the invitation; [5]In **Portugal** the target age is 50-69 years in Algarve, 45-74 years in Azores and 45-69 years in other regions; [6]In the pilot programme in Cluj (**Romania**), women are invited by the General Practitioners (GPs) from their patient enrollment lists; [7]In **Spain** the target age is 45-69 years in some regions; [8]In **Wales** the programme started in 1989.*

Table 3.1.2. Breast cancer screening programmes in the EU member states: information on programme monitoring, quality assurance and requirements for consent

Member states	Programme monitoring and quality assurance							Consent for Screening	
	What proportion of screening tests are performed with digital mammography?	Are mammograms always doubleread?	Are there screening registries?	Are screening data collected as individual data?	Are sceening data linked with cancer registries?	Are programme performance reports published?	Is there quality control of data collection?	Does the programme require signed informed consent?	Is written information on benefits and harms of screening provided?
Austria	100%	✓	✓	✓	✓	×	✓	×	✓
Belgium	100%[1]	–	✓	✓	✓	✓	✓	✓[1]	✓
Bulgaria	NA	NA	NA	NA	NA	NA	NA	NA	NA
Croatia	NA	✓	×	×	×	×	✓	✓	✓
Cyprus	100%	✓	✓	✓	✓	×	✓	✓	✓
Czech Republic	100%	×	✓	✓	×	✓	✓	✓	✓
Denmark	100%	✓	✓	✓	✓	✓	✓	×	✓
Estonia	100%	✓	✓	✓	✓	×	×	×	✓
Finland	100%	✓	✓	✓	✓	✓	✓	×	✓
France	97%	✓[2]	✓	✓	✓	✓	✓	×	✓
Germany	100%	✓	✓	✓	✓	✓	✓	×	✓
Greece	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hungary	60%	✓	✓	✓	✓	×	✓	✓	✓
Ireland	100%	✓	✓	✓	✓	✓	✓	✓	✓
Italy	80%	✓	✓	✓	✓	✓	✓	✓	✓
Latvia	98%	✓	✓	✓	✓	✓	✓	×	✓
Lithuania	51%	✓	×	NA	NA	×	×	✓	✓
Luxembourg	100%	✓	✓	✓	✓	✓	×	×	✓
Malta	100%	✓	✓	✓	✓	✓	×	×	✓
Netherlands	100%	✓	✓	✓	✓	✓	✓	✓	✓
Poland	75%	✓	✓	✓	×	×	✓	✓	×
Portugal	100%	✓	✓	✓	×[3]	×	✓	✓	✓
Romania	75%	✓	✓	–	✓	×	✓	✓	✓
Slovak Republic	NA	NA	NA	NA	NA	NA	NA	NA	NA
Slovenia	100%	✓	✓	✓	✓	✓	✓	✓	✓
Spain	95%	×	✓	✓	✓	✓	✓	×	✓
Sweden	100%	✓	✓	✓	✓	✓	✓	×	×
United Kingdom	100%	✓	✓	✓	✓	✓	✓	×	✓

Legends: ✓ = yes, x = no, NA = Not applicable

*[1]In **Flemish** region the proportion of digital mammograms is 99% and no signed informed consent is required; [2]In **France**, mammograms that are negative on first reading are double read, which represents 90% of all mammograms; [3]In **Portugal**, although there is no link, the cancer registry is periodically checked for screen detected cancers.*

Table 3.2.1. Cervical cancer screening programmes in the EU member states:
general information, information on programme organization and mode of invitation to the participants for screening and further assessments

Member states	General information				Programme organization							Invitations for screening and further assessments			
	Year of programme initiation	Target age (years)	Screening interval (years)	Is there a population based programme?	Is there a national screening policy?	Is the policy documented as a law or an official recommen-dation?	Is there a team resp. for implemen-ting the policy?	Is the programme publicly funded?	Is health insurance a source of funding?	Are the screening tests provided free of charge?	Are the diagnostic tests provided free of charge?	Does the programme issue individual invitations through the screening registries?	Are the invitations sent as letters?	Does the invitation include a fixed appoint-ment date?	Does the programme actively invite the screen positives for further assessment?
Austria	NA	18+	1	×	✓	OR	×	NA	NA	✓	✓	NA	NA	NA	NA
Belgium[1]	2013	25-64	3	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	×
Bulgaria	NA	–	–	×	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Croatia	2012	25-64	3	✓	✓	OR	–	✓	✓	✓	✓	✓	✓	×	×
Cyprus	NA	–	–	×	×	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Czech Republic	2008	15+	1	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	×
Denmark	2006	23-59 (HPV test: 60-65)	3 (23-59); 5 (60-64)	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	✓
Estonia	2006	30-59	5	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	✓
Finland	1963	30-64[2]	5	✓	✓	OR	✓	✓	×	✓	×	✓	✓	✓[2]	✓
France	1991	25-64	3	✓	✓	OR	✓	✓	✓	✓	×	✓	✓	×	✓
Germany[3]	1971	20+	1	✓[3]	✓	Law and OR	✓	✓	✓	✓	✓	×[3]	×[3]	×[3]	×[3]
Greece	NA	Sexual onset+	–	×	✓	OR	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hungary	2003	25-65	3	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	×	✓
Ireland	2008	25-60	3 (25-44); 5 (45-60)	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	×	✓
Italy	1989	25-64	3	✓	✓	Law	✓	✓	×	✓	✓	✓	✓	✓	✓
Latvia	2009	25-69	3	✓	✓	OR	✓	✓	×	✓		✓	✓	×	×
Lithuania	2004	25-59	3	✓	✓	Law	×	✓	✓	✓	✓	×[4]	×[4]	×	×
Luxembourg	NA	18+	1	×	×	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Malta	2015	25-35 (Piloting)	3	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	×	✓
Netherlands	1970	30-64	5	✓	✓	Law	✓	✓	×	✓	✓	✓	✓	×	×
Poland	2006	25-29 (Co-test: 30-59)	3	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	×	✓
Portugal	1990	20-59 (Azores: 25-64)	3	✓	✓	OR	✓	✓	×	✓	✓	×[4]	✓	✓	✓
Romania	2012	25-64	5	✓	✓	OR	✓	✓	×	✓	✓	×[5]	×	×	×
Slovak Republic[6]	2008	23-64	Yrly x 2; then 3 yrly	✓	✓	OR	×	Partially	✓	✓	✓	×	NA	NA	NA
Slovenia	2003	20-64	Yrly x 2; then 3 yrly	✓	✓	OR	✓	×	✓	✓	✓	✓	✓	×	✓
Spain	NA	25-64	3	×	✓	Law	NA	NA	NA	✓	✓	NA	NA	NA	NA
Sweden	1967	23-60	3 (23-50); 5 (51-60)	✓	✓	OR	✓	✓	×	✓	×	✓	✓	✓	✓
United Kingdom	1988	25-64	3 (25-49); 5 (50-64)	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	×	✓

Legends: ✓ = yes, x = no, NA = Not applicable, OR = Official recommendation

*[1]In **Belgium** only the Flemish region has a programme; [2]In **Finland**, the screening test can be either cytology or HPV. Some municipalities target women below 30 years and above 60 years. Only in select municipalities the invitation include a fixed appointment date; [3]The Cancer Screening and Registry Act came into force in **Germany** in 2013. It created the legal framework to turn the current opportunistic screening programmes for cervical and colorectal cancer into organised, population based screening programmes. The Federal Joint Committee is responsible for the further regulation and implementation of the Cancer Screening and Registry Act. The Act regulates data linkage between organised screening programmes and cancer registries (epidemiological/clinical). [4]In **Lithuania** and **Portugal**, invitation is sent through primary health care. It may or may not be by letter depending on the organization sending the invitation; [5]In **Romania** women are invited by the General Practioners (GPs) from their patient enrollemnt list. [6]**Slovak Republic** is planning nationwide population based programme.*

Table 3.2.2. Cervical cancer screening programmes in the EU member states: information on programme monitoring, quality assurance and requirements for consent

Member states	Programme monitoring and quality assurance							Consent for screening	
	Is there a team responsible for quality assurance?	Are there screening registries?	Are screening data collected as individual data?	Are sceening data linked with cancer registries?	Are programme performance reports published?	Is there an audit of the cancer cases?	Is there quality control of data collection?	Does the programme require signed informed consent?	Is written information on benefits and harms of screening provided?
Austria	–	✓	×	×	×	×	×	NA	NA
Belgium	✓	✓	✓	✓	✓	×	✓	×	✓
Bulgaria	NA	NA	NA	NA	NA	NA	NA	NA	NA
Croatia	–	✓	×	×	×	×	×	×	✓
Cyprus	NA	×	NA	NA	×	×	NA	NA	NA
Czech Republic	✓	✓	✓	×	✓	×	✓	×	✓
Denmark	✓	✓	✓	✓	✓	✓	✓	×	✓
Estonia	✓	✓	✓	✓	×	×	×	×	✓
Finland	✓	✓	✓	✓	✓	✓	✓	×	✓
France	✓	✓	✓	✓	×	×	✓	×	×
Germany	×[1]	×[1]	✓	✓[1]	✓[1]	✓	✓	×[1]	✓
Greece	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hungary	✓	✓	✓	✓	×	✓	✓	×	✓
Ireland	✓	✓	✓	✓	✓	✓	✓	✓	✓
Italy	✓	✓	✓	✓	✓	×	✓	×	✓
Latvia	×	✓	✓	✓	✓	×	×	×	✓
Lithuania	×	×	NA	NA	✓	×	×	✓	×
Luxembourg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Malta	✓	✓	✓	✓	×	×	×	×	✓
Netherlands	✓	✓	✓	✓	✓	✓	✓	✓	✓
Poland	✓	✓	✓	×	✓	–	✓	✓	✓
Portugal	✓	✓	✓	✓	✓	×	✓	✓	✓
Romania	✓	✓	×	✓	×	✓	✓	×	✓
Slovak Republic	–	×	NA	×	×	×	×	×	×
Slovenia	✓	✓	✓	✓	✓	✓	✓	×	✓
Spain	NA	NA	NA	NA	✓	NA	NA	×	×
Sweden	✓	✓	✓	✓	✓	✓	✓	×	✓
United Kingdom	✓	✓	✓	✓	✓	✓	✓	×	✓

Legends: ✓ = yes, x = no, NA = Not applicable

*[1]**In Germany,** linkage between screening data and cancer registry and the first performance reports are in preparation as the program was launched few years back. The Cancer Screening and Registry Act came into force in Germany in 2013. It created the legal framework to turn the current opportunistic screening programmes for cervical and colorectal cancer into organised, population based screening programmes. The Federal Joint Committee is responsible for the further regulation and implementation of the Cancer Screening and Registry Act. The Act regulates data linkage between organised screening programmes and cancer registries (epidemiological/clinical).*

Table 3.3.1. Colorectal cancer screening programmes in the EU member states:
general information, information on programme organization and mode of invitation to the participants for screening and further assessments

Member states	General information				Programme organization							Invitations for screening and further assessments			
	Year of programme initiation	Target age (years)	Screening interval (years)	Is there a population based programme?	Is there a national screening policy?	Is the policy documented as a law or an official recommen-dation?	Is there a team resp. for implemen-ting the policy?	Is the programme publicly funded?	Is health insurance a source of funding?	Are the screening tests provided free of charge?	Are the diagnostic tests provided free of charge?	Does the programme issue individual invitations through the screening registries?	Are the invitations sent as letters?	Are the kits (gFOBT or FIT) or the sample containers mailed to the individuals?	Does the programme actively invite the screen positives for further assessment?
Austria[1]	2003	40-80 (FIT); 50+ (TC)[1]	1 (FIT); 6 (TC)[1]	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	✓	×
Belgium	2009[2]	50-74 (WAL-BRU); 56-74 (Flemish)	2 (FIT); 10 (TC)	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	✓	×[2]
Bulgaria	NA	—	—	×	×	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Croatia	2008	50-74	2	✓	✓	OR	✓	×	✓	✓	✓	✓	✓	✓	✓
Cyprus	2013	50-69	2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	×	✓
Czech Republic	2000[3]	50+ (FIT); 55+ (TC)[3]	1 (FIT;50-54); 2 (FIT;55+); 10 (TC)	✓	✓	OR	✓	✓	✓	✓	✓	✓[3]	✓[3]	×	×
Denmark	2014	50-74	2	✓	✓	OR	✓	✓	✓	✓	✓	✓	✓	✓	✓
Estonia[4]	2016[4]	60-69[4]	2	✓[4]	✓	OR	✓	✓	✓	✓	✓	✓	✓	×	✓
Finland	2004	60-69	2	✓	✓	OR	✓	✓	×	✓	×	✓	✓	✓	✓
France	2002	50-74	2	✓	✓	OR	✓	✓	✓	✓	×	✓	✓	×	✓
Germany[5]	1974[5]	50-74	1 (50-54 gFOBT); 2 (55+ gFOBT); 10[5] (55+ TC)	✓[5]	✓	Law and OR	✓	✓	✓	✓	✓	×[5]	×[5]	×[5]	×[5]
Greece	NA	50-70	2 (FOBT); 5 (TC)	×	✓	OR	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hungary	2007	50-70	2	✓	✓	Law	✓	✓	✓	✓	✓	✓[6]	✓	×	✓
Ireland	2012	60-69[7]	2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	✓	✓
Italy	1982[8]	50-69	2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	×	✓
Latvia	2009	50-74	1	×	✓	OR	NA	NA	NA	✓	×	NA	NA	NA	NA
Lithuania	2009[6]	50-74	2	✓	✓	Law	×	✓	✓	✓	✓	×[9]	×[9]	×	×
Luxembourg[10]	2016	55-74	2	✓[10]	✓	OR	✓	✓	✓	✓	✓	✓	✓	✓	✓
Malta	2013	55-66	2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	✓	✓
Netherlands	2014	55-75	2	✓	✓	Law	✓	✓	×	✓	×	✓	✓	✓	✓
Poland	2012	55-64	10+	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	—	✓
Portugal	2009	50-70	2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	NA	✓
Romania	NA	—	—	×	×	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Slovak Republic	NA	—	—	×	×	NA	NA	NA	NA	✓	✓	NA	NA	NA	NA
Slovenia	2009	50-74	2	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spain	2000	50-69	2	✓	✓	Law	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sweden[11]	2008	60-69	2	✓	✓	OR	✓	✓	×	✓	×	✓	✓	✓	✓
United Kingdom	2006[12]	60-74 (Scotland 50-74)	2	✓	✓	OR	✓	✓	×	✓	✓	✓	✓	✓	✓

Legends: ✓ = yes, x = no, NA = Not applicable, OR = Official recommendation

*[1]In **Austria** a population based screening programme is implemented only in the state of Burgenland, since 2003. In the rest of the country screening is opportunistic. Within the opportunistic annual check, a gFOBT is offered every year and the interval for colonoscopy is 10 years; [2]The population based programme in Wallonia-Brussels **(Belgium)** started in 2009, and in the Flemish region **(Belgium),** in 2013. Since march 2016 Wallonia-Brussels has replaced gFOBT with FIT. Screen positive patient is informed through the treating physician to have colonoscopy; [3]The population based programme in the **Czech Republic** started in 2014. Invitations have been sent only to non-attenders since 2014. The invitations are sent only to the individuals up to 70 years of age; [4]In **Estonia** the population based pilot programme started in 2016 among a 60 years old age cohort, with an intended target group of 60-69 years old; [5]In **Germany**, screening activities started in 1974, and a population-based programme is planned to start in 2016. TC is recommended twice for men and women older than 55 years. The Cancer Screening and Registry Act came into force in Germany in 2013. It created the legal framework to turn the current opportunistic screening programmes for cervical and colorectal cancer into organised, population based screening programmes. The Federal Joint Committee is responsible for the further regulation and implementation of the Cancer Screening and Registry Act. The Act regulates data linkage between organised screening programmes and cancer registries (epidemiological/clinical); [6]In **Hungary,** women who have already been screened opportunistically are not invited; [7]**Ireland** is planning to extend the target age to 55-74 years; [8]In **Italy**, screening started in 1982 in Florence, and between 2000 and 2004 in other regions; [9]In **Lithuania,** the population based programme started in 2009 in two districts, and became nationwide in 2014. Invitation is sent through prymary health care. It may or not be by letter; [10]In **Luxembourg** a population based programme is planned to start in 2016; [11]In **Sweden**, only Stockholm Gotland region has introduced screening; [12]Year of programme initiation: **England** 2006, **Northern Ireland** 2010, **Scotland** 2007, **Wales** 2008.*

Table 3.3.2. Colorectal cancer screening programmes in the EU member states: information on programme monitoring, quality assurance and requirements for consent

Member states	Programme monitoring and quality assurance						Consent for screening	
	Is there a team responsible for quality assurance?	Are there screening registries?	Are screening data collected as individual data?	Are sceening data linked with cancer registries?	Are programme performance reports published?	Is there quality control of data collection?	Does the programme require signed informed consent?	Is written information on benefits & harms of screening provided?
Austria	✓	✓	✓	×	✓	✓	×	✓
Belgium	✓	✓	✓	✓	✓	✓	✓	✓
Bulgaria	NA	NA	NA	NA	NA	NA	NA	NA
Croatia	✓	✓	✓	×	✓	✓	✓	✓
Cyprus	✓	✓	✓	×	✓	×	✓	✓
Czech Republic	✓	✓	✓	×	✓	✓	✓[1]	✓
Denmark	✓	✓	✓	✓	✓	✓	×	✓
Estonia	✓	✓	✓	✓	✓	✓	×	✓
Finland	✓	✓	✓	✓	✓	✓	×	✓
France	✓	✓	✓	✓	✓	✓	×	✓
Germany	✓	×[2]	✓	×[2]	✓	✓	×[2]	✓
Greece	NA	NA	NA	NA	NA	NA	NA	NA
Hungary	✓	✓	✓	✓	×	✓	✓	✓
Ireland	✓	✓	✓	×[3]	×[3]	✓	×	✓
Italy	✓	✓	✓	×	✓	✓	✓	✓
Latvia	×	✓	✓	✓	✓	×	×	×
Lithuania	×	×	NA	×	✓	✓	✓	×
Luxembourg	✓	✓	✓	✓	✓	×	✓	✓
Malta	✓	✓	✓	✓	✓	✓	×	✓
Netherlands	✓	✓	✓	✓	✓	✓	✓	✓
Poland	✓	✓	✓	✓	✓	✓	✓	✓
Portugal	✓	✓	✓	✓	✓	✓	✓	✓
Romania	NA	NA	NA	NA	NA	NA	NA	NA
Slovak Republic	NA	NA	NA	NA	NA	NA	NA	NA
Slovenia	✓	✓	✓	✓	✓	✓	✓	✓
Spain	✓	✓	✓	✓	✓	✓	×	✓
Sweden	✓	✓	✓	×	✓	✓	×	✓
United Kingdom	✓	✓	✓	✓	✓	✓	×	✓

Legends: ✓ = yes, x = no, NA = Not applicable

[1]*In **Czech Republic**, for endoscopy screening only;* [2]*The Cancer Screening and Registry Act came into force in **Germany** in 2013. It created the legal framework to turn the current opportunistic screening programmes for cervical and colorectal cancer into organised, population based screening programmes. The Federal Joint Committee is responsible for the further regulation and implementation of the Cancer Screening and Registry Act. The Act regulates data linkage between organised screening programmes and cancer registries (epidemiological/clinical);* [3]*In **Ireland**, linkage between screening data and cancer registry and the first performance reports are in preparation as the program was launched few years back.*

Table 3.4. Breast cancer screening programmes in European Union Member States 2016 50-69-year-old women in estimated national target populations[1]									
Population estimates by screening test, programme type and country implementation status									
	Screening test[2]	**Population-based programmes**		**Non-population-based programmes**		**No programme or excluded population[3]**		**Total**	
		status	**women (x1,000)**	**status**	**women (x1,000)**	**excluded due to**	**women (x1,000)**	**member states**	**women (x1,000)**
Austria[6]	Mx, (US)	Nationwide, rollout complete	1,140					**1**	**1,140**
Belgium[5]	Mx	Nationwide, rollout complete	1,457					**1**	**1,457**
Bulgaria	Mx			Nationwide	1,033			**1**	**1,033**
Croatia	Mx	Nationwide, rollout complete	601					**1**	**601**
Cyprus[7]	Mx, (CBE)	Nationwide, rollout complete	104					**1**	**104**
Czech Republic	Mx	Nationwide, rollout complete	1,417					**1**	**1,417**
Denmark	Mx	Nationwide, rollout complete	726					**1**	**726**
Estonia	Mx	Nationwide, rollout complete	141			Age[4]	43	**1**	**184**
Finland	Mx	Nationwide, rollout complete	761					**1**	**761**
France	Mx, (CBE)	Nationwide, rollout complete	8,612					**1**	**8,612**
Germany	Mx	Nationwide, rollout complete	11,443					**1**	**11,443**
Greece	Mx, (CBE)			Nationwide	1,421			**1**	**1,421**
Hungary	Mx	Nationwide, rollout complete	1,045			Age[4]	329	**1**	**1,374**
Ireland	Mx	Nationwide, rollout complete	499					**1**	**499**
Italy	Mx	Nationwide, rollout complete	8,269					**1**	**8,269**
Latvia	Mx	Nationwide, rollout complete	288					**1**	**288**
Lithuania	Mx	Nationwide, rollout ongoing	419					**1**	**419**
Luxembourg	Mx	Nationwide, rollout complete	66					**1**	**66**
Malta	Mx	Nationwide, rollout complete	59					**1**	**59**
Netherlands	Mx	Nationwide, rollout complete	2,276					**1**	**2,276**
Poland	Mx	Nationwide, rollout complete	5,334					**1**	**5,334**
Portugal[5]	Mx	Nationwide, rollout ongoing	1,431					**1**	**1,431**
Romania	Mx	Nationwide, piloting	2,563					**1**	**2,563**
Slovak Republic	Mx, (US)			Nationwide	727			**1**	**727**
Slovenia	Mx	Nationwide, rollout ongoing	283					**1**	**283**
Spain	Mx	Nationwide, rollout complete	5,828					**1**	**5,828**
Sweden[5]	Mx	Nationwide, rollout complete	1,183					**1**	**1,183**
United Kingdom[5]	Mx	Nationwide, rollout complete	7,983					**1**	**7,983**
Total			**63,927**		**3,181**		**372**		**67,480**

Abbreviations: Mx *Mammography,* ***CBE*** *Clinical Breast Examination,* ***US*** *Ultrasound*

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Mammography fulfils the requirements of the Council Recommendation on Cancer Screening of 2 December 2003. Tests in parentheses currently used less

[3]Excluded: 50-69-year-old women in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due

[4]Countries or regions with narrow age-range: Estonia 50-64, Hungary 45-64

[5]Regional programmes: see continued table below.

[6]Austria, screening test is Mx supplemented by ultrasound if American College of Radiology (ACR) criteria 3 or 4. Women age 40-44 or 75+ years may contact

[7]Cyprus: programme implemented in areas effectively controled by the Republic of Cyprus.

Breast cancer screening programmes, continued (table 3.4) 50-69-year-old women in REGIONAL target populations[1] in selected European Union member states									
	Screening test[2]	**Population-based programmes**		**Non-population-based programmes**		**No programme or excluded population[3]**		**Total**	
		status	**women (x1,000)**	**status**	**women (x1,000)**	**excluded due to**	**women (x1,000)**	**member states**	**women (x1,000)**
Belgium	**Mx**	**Nationwide, rollout complete**	**1,457**						
Brussels	*Mx*	*rollout complete*	*123*					**1**	**1,457**
Flanders	*Mx*	*rollout complete*	*854*						
Wallonia	*Mx*	*rollout complete*	*479*						
Portugal	**Mx**	**Nationwide, rollout ongoing**	**1,431**						
Alentejo	*Mx*	*rollout complete*	*99*						
Algarve	*Mx*	*rollout complete*	*58*						
Azores	*Mx*	*rollout complete*	*29*					**1**	**1,431**
Central	*Mx*	*rollout complete*	*318*						
Lisbon	*Mx*	*rollout ongoing*	*380*						
Madeira	*Mx*	*rollout complete*	*36*						
North	*Mx*	*rollout ongoing*	*512*						
Sweden	**Mx**	**Nationwide, rollout complete**	**1,183**						
Stockholm	*Mx*	*rollout complete*	*247*					**1**	**1,183**
Other regions	*Mx*	*rollout complete*	*936*						
United Kingdom	**Mx**	**Nationwide, rollout complete**	**7,983**						
England [4]	*Mx*	*rollout complete*	*6,636*						
N. Ireland	*Mx*	*rollout complete*	*218*					**1**	**7,983**
Scotland	*Mx*	*rollout complete*	*722*						
Wales	*Mx*	*rollout complete*	*407*						

Abbreviations: Mx *Mammography,* ***CBE*** *Clinical Breast Examination,* ***US*** *Ultrasound*

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Mammography fulfils the requirements of the Council Recommendation on Cancer Screening of 2 December 2003.

[3]Excluded: 50-69-year-old women in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due

[4]England: for women in high risk programme, screening test is magnetic resonance imaging.

Breast cancer screening programmes, continued (table 3.4)											
Number (x1,000) and proportion (%) of 50-69-year-old women in the European Union in combined national target populations[1] **Estimates by programme status**											
	Population-based programmes			**Non-population-based programmes**			**No programme or excluded population[2]**			**Total**	
Nationwide											
Rollout complete	Austria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Luxembourg, Malta, Netherlands, Poland, Spain, Sweden, United Kingdom	59,231	87.8%	Bulgaria, Greece, Slovakia	3,181	4.7%				**67,108**	**99.4%**
Rollout ongoing	Lithuania, Portugal, Slovenia	2,133	3.2%								
Piloting	Romania	2,563	3.8%								
Planning											
Regional											
Rollout complete											
Rollout ongoing											
Piloting											
Planning											
Excluded[2]										**372**	**0.6%**
No programme											
By age or region[3]							Estonia, Hungary	372	0.6%		
Total		**63,927**	**94.7%**		**3,181**	**4.7%**		**372**	**0.6%**	**67,480**	**100.0%**

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Excluded: 50-69-year-old women in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due to limited eligible age range.

[4]Countries or regions with narrow age-range: Estonia 50-64, Hungary 45-64.

Table 3.5. Cervical cancer screening programmes in European Union Member States 2016 30-59-year-old women in estimated national target populations[1]									
Population estimates by screening test, programme type and country implementation status									
	Screening test	Population-based programmes		Non-population-based programmes		No programme or excluded population[2]		Total	
		status	women (x1,000)	status	women (x1,000)	excluded due to	women (x1,000)	member states	women (x1,000)
Austria	Cytology			Nationwide	1,859			**1**	**1,859**
Belgium[3]	Cytology	Regional, rollout ongoing	1,313	Regional	985			**1**	**2,298**
Bulgaria						No progr	1,490	**1**	**1,490**
Croatia	Cytology	Nationwide, rollout ongoing	882					**1**	**882**
Cyprus						No progr	195	**1**	**195**
Czech Republic	Cytology	Nationwide, rollout ongoing	2,225					**1**	**2,225**
Denmark	Cytology	Nationwide, rollout complete	1,105					**1**	**1,105**
Estonia	Cytology	Nationwide, rollout complete	271					**1**	**271**
Finland	Cytology	Nationwide, rollout complete	1,042					**1**	**1,042**
France[3]	Cytology	Regional, rollout ongoing	1,788	Regional	11,279			**1**	**13,067**
Germany	Cytology[4]	Nationwide, planning	16,974	Nationwide	16,974			**1**	**16,974**
Greece	Cytology			Nationwide	2,348			**1**	**2,348**
Hungary	Cytology	Nationwide, rollout ongoing	2,091					**1**	**2,091**
Ireland	Cytology	Nationwide, rollout ongoing	986					**1**	**986**
Italy	Cytology	Nationwide, rollout ongoing	13,187					**1**	**13,187**
Latvia	Cytology	Nationwide, rollout complete	423					**1**	**423**
Lithuania	Cytology	Nationwide, rollout ongoing	612					**1**	**612**
Luxembourg	Cytology			Nationwide	125			**1**	**125**
Malta	Cytology	Nationwide, piloting	18			Age[6]	67	**1**	**85**
Netherlands	Cytology	Nationwide, rollout complete	3,425					**1**	**3,425**
Poland	Cytology	Nationwide, rollout complete	8,330					**1**	**8,330**
Portugal[3]	Cytology	Regional, rollout ongoing	1,616			Regional	676	**1**	**2,293**
Romania	Cytology	Nationwide, rollout ongoing	4,166					**1**	**4,166**
Slovak Republic	Cytology	Nationwide, planning	1,197					**1**	**1,197**
Slovenia	Cytology	Nationwide, rollout complete	440					**1**	**440**
Spain	Cytology			Nationwide	10,491			**1**	**10,491**
Sweden	Cytology	Nationwide, rollout complete	1,842					**1**	**1,842**
United Kingdom[3]	Cytology	Nationwide, rollout complete	13,078					**1**	**13,078**
Total[5]			**77,012**		**27,086**		**2,428**	**28**	**106,527**

Abbreviations: No progr *No programme*

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Excluded: 30-59-year-old women in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due to limited eligible age range.

[3]Regional programmes: see continued table below.

[4]Germany is planning a population-based programme based on cytology and HPV test.

[5]Although Germany has a non-population based programme going on, in this table only the figures for the population-based programme in planning phase are taken into account.

[6]Malta is targeting a narrow age-range (25-35 year old) during the implementation phase of the pilot programme.

Cervical cancer screening programmes, continued (table 3.5) 30-59-year-old women in REGIONAL target populations[1] in selected European Union member states									
	Screening test	Population-based programmes		Non-population-based programmes		No programme or excluded population[2]		Total	
		status	women (x1,000)	status	women (x1,000)	excluded due to	women (x1,000)	member states	women (x1,000)
Belgium									
Flemish region	*Cytology*	*rollout ongoing*	*1,313*					**1**	**2,298**
Other regions				*Regional*	*985*				
France									
13 districits	*Cytology*	*rollout ongoing*	*1,788*					**1**	**13,067**
Other regions	*Cytology*			*Regional*	*11,279*				
Portugal									
Lisboa, Madeira						*No progr*	*676*	**1**	**2,293**
Other regions	*Cytology*	*rollout ongoing*	*1,616*						
United Kingdom									
England	*Cytology*	*rollout complete*	*10,988*						
N. Ireland	*Cytology*	*rollout complete*	*377*					**1**	**13,078**
Scotland	*Cytology*	*rollout complete*	*1,118*						
Wales	*Cytology*	*rollout complete*	*595*						

Abbreviations: ***No progr*** *No programme*

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Excluded: 30-59-year-old women in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due to limited eligible age range.

Cervical cancer screening programmes, continued (table 3.5)											
Number (x1,000) and proportion (%) of 30-59-year-old women in the European Union in combined national target populations[1] **Estimates by programme status**											
	Population-based programmes			**Non-population-based programmes**			**No programme or excluded population[2]**			**Total**	
Nationwide				Austria, Germany[3], Greece, Luxembourg, Spain	14,822	13.9%				**87,117**	**81.8%**
Rollout complete	Denmark, Estonia, Finland, Latvia, Netherlands, Poland, Slovenia, Sweden, United Kingdom	29,957	28.1%								
Rollout ongoing	Croatia, Czech, Hungary, Ireland, Italy, Lithuania, Romania	24,149	22.7%								
Piloting	Malta	18	0.0%								
Planning	Germany, Slovakia	18,171	17.1%								
Regional				Belgium (Wallonian-Brussels), France (other regions)	12,264	11.5%				**16,981**	**15.9%**
Rollout complete											
Rollout ongoing	Belgium (Flemish), France (13 districts), Portugal (other regions)	4,717	4.4%								
Piloting											
Planning											
Excluded[2]											
No programme							Bulgaria, Cyprus,Portugal (Lisbon, Madeira)	2,361	2.2%	**2,428**	**2.3%**
By age or region							Malta[4]	67	0.1%		
Total		**77,012**	**72.3%**		**27,086**	**25.4%**		**2,428**	**2.3%**	**106,527**	**100.0%**

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Excluded: 30-59-year-old women in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due to limited eligible age range.

[3]Although Germany has a non-population based programme going on, in this table only the figures for the planning population-based programme are taking into account.

[4]Malta is targeting a narrow age-range (25-35 year old) during the implementation phase of the pilot programme.

Table 3.6. Colorectal cancer screening programmes in European Union Member States 2016
50-74-year-old women and men in estimated national target populations[1]

Population estimates by screening test, programme type and country implementation status

	Screening test	Population-based programmes		Non-population-based programmes		No programme or excluded population[2]		Total	
		status	individuals (x1,000)	status	individuals (x1,000)	excluded due to	individuals (x1,000)	member states	individuals (x1,000)
Austria[4]									
	gFOBT			Regional	2,574	Regional	51	**1**	**2,625**
	TC			Nationwide	2,625				
	FIT	Regional, rollout complete	51						
Belgium[4]									
	FIT	Regional, rollout complete	1,405			Age[3]	585	**1**	**3,329**
	FIT[7]	Regional, rollout complete	1,339						
Bulgaria						No progr	2,320	**1**	**2,320**
Croatia	gFOBT	Nationwide, rollout complete	1,336					**1**	**1,336**
Cyprus	FIT	Nationwide, piloting	202			Age[3]	31	**1**	**233**
Czech Republic									
	FIT	Nationwide, rollout complete	3,248					**1**	**3,248**
	TC	Nationwide, rollout ongoing	2,563			Age[3]	685		
Denmark	FIT	Nationwide, rollout complete	1,735					**1**	**1,735**
Estonia	FIT	Nationwide, piloting	156			Age[3]	231	**1**	**387**
Finland	gFOBT	Nationwide, piloting	754			Age[3]	1,004	**1**	**1,758**
France[4]									
	gFOBT	Regional, rollout complete	19,042					**1**	**19,139**
	FIT	Regional, rollout complete	97						
Germany									
	FIT	Nationwide, planning	26,798					**1**	**26,798**
	TC	Nationwide, planning	26,798	Nationwide	26,798				
	gFOBT			Nationwide	26,798				
Greece									
	gFOBT			Nationwide	2,832	Age[3]	383	**1**	**3,215**
	TC			Nationwide	3,215				
Hungary	FIT	Nationwide, piloting	2,634			Age[3]	366	**1**	**3,000**
Ireland	FIT	Nationwide, rollout ongoing	433			Age[3]	709	**1**	**1,142**
Italy[4]									
	FIT	Nationwide, rollout ongoing	13,742			Age[3]	2,812	**1**	**18,090**
	FS + FIT	Regional, rollout complete	665			Age[3]	871		
Latvia	gFOBT			Nationwide	603			**1**	**603**
Lithuania	FIT	Nationwide, rollout ongoing	876					**1**	**876**
Luxembourg									
	FIT	Nationwide, planning	110			Age[3]	43	**1**	**153**
	TC	Nationwide, planning	110			Age[3]	43		
Malta	FIT	Nationwide, rollout ongoing	71			Age[38]	66	**1**	**136**
Netherlands	FIT	Nationwide, rollout ongoing	4,000			Age[3]	1,279	**1**	**5,279**
Poland	TC	Nationwide, rollout ongoing	5,552			Age[3]	5,764	**1**	**11,316**
Portugal[4]	gFOBT	Regional, rollout ongoing	122			Age[3], reg	3,079	**1**	**3,201**
Romania						No progr	5,613	**1**	**5,613**
Slovak Republic						No progr	1,576	**1**	**1,576**
Slovenia	FIT	Nationwide, rollout complete	651					**1**	**651**
Spain	FIT	Nationwide, rollout ongoing	11,417			Age[3]	1,970	**1**	**13,387**
Sweden[4]	gFOBT	Regional , rollout complete	219			Age[3], reg	2,662	**1**	**2,881**
United Kingdom[4]									
	gFOBT	Nationwide, rollout complete	10,657			Age[3]	4,711	**1**	**18,450**
	FS	Regional, rollout ongoing	3,082						
Total[56]			**110,392**		**6,009**		**36,075**	**28**	**152,476**

Abbreviations: ***gFOBT*** *Guaiac Fecal Occult Blood Test* **,** ***FIT*** *Fecal Immunochemical Test,* ***FS*** *Flexible Sigmoidosopy,* ***TC*** *Total Colonoscopy,* ***No progr*** *No programme,* ***Reg*** *Region*

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Excluded: 50-74-year-old women and men in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due to limited eligible age range.

[3]Countries or regions with narrow age-range: Belgium Flemish region 56-74, Czech R. (TC) 55-74, Estonia 60-69, Finland 60-69, Greece (gFOBT) 50-70, Hungary 50-70, Ireland 60-69, Italy (FIT) 50-69, Italy (FS) 58-60, Luxembourg 55-74, Malta 55-66, Netherlands 55-75, Poland 55-64, Portugal Alentejo and Center 50-70, Spain 50-69, Sweden Stockholm 60-69, UK (gFOBT) England, Nothern Ireland and Wales 60-74, UK (FS) England 55-59.

[4]Regional programmes: see continued table below.

[5]Total: Countries with dual-status (more than one programme going on or more than one test used), only one status was included - Austria, Bungerland FIT and other regions gFOBT; Czech Republic FIT; Germany FIT; Greece gFOBT, Italy FIT, Luxembourg FIT.

[6]Although Germany has a non-population based programme going on, in this table only the figures for thepopulation-based programme in the planning phase are taken into account.

[7]Wallonia-Brussels regions in Belgium have replaced gFOBT with FIT since march 2016.

[8]In Malta the initial rollout of the programme in 2013 targeted 60-64 year old women and men. The rollout was completed in 2014. Since 2015 the target population was extended to 55-66 year old. This rollout is ongoing.

Colorectal cancer screening programmes, continued (table 3.6)									
50-74-year-old women and men in REGIONAL target populations[1] in selected European Union member states									
	Screening test	Population-based programmes		Non-population-based programmes		No programme or excluded population[2]		Total	
		status	individuals (x1,000)	status	individuals (x1,000)	excluded due to	individuals (x1,000)	member states	individuals (x1,000)
Austria									
Burgenland	*FIT*	*rollout complete*	*51*					**1**	**2,625**
Other regions	*gFOBT*			*Regional*	*2,574*				
Belgium									
Flemish region	*FIT*	*rollout complete*	*1,405*			*Age[3]*	*585*	**1**	**3,329**
Wallonia-Brussels	*FIT[5]*	*rollout complete*	*1,339*						
France									
Calvados	*FIT*	*rollout complete*	*97*					**1**	**19,139**
Other regions	*gFOBT*	*rollout complete*	*19,042*						
Italy									
Piedmont[4]	*FS + FIT*	*rollout complete*	*176*			*Age[3]*	*1,264*	**1**	**18,558**
Other regions	*FIT*	*rollout ongoing*	*16,025*			*Age[3]*	*2,533*		
Portugal									
Alentejo, Center	*gFOBT*	*rollout ongoing*	*122*			*Age[3]*	*833*	**1**	**3,201**
Other regions						*Regional*	*2,246*		
Sweden									
Stockholm	*gFOBT*	*rollout complete*	*219*			*Age[3]*	*369*	**1**	**2,881**
Other regions						*Regional*	*2,293*		
United Kingdom									
England	*gFOBT*	*rollout complete*	*8,223*			*Age[3]*	*3,821*	**1**	**18,450**
England	*FS*	*rollout ongoing*	*3,310*						
N. Ireland	*gFOBT*	*rollout complete*	*392*			*Age[3]*	*329*		
Scotland	*gFOBT*	*rollout complete*	*1,642*						
Wales	*gFOBT*	*rollout complete*	*400*			*Age[3]*	*334*		

Abbreviations: ***gFOBT*** *Guaiac Fecal Occult Blood Test*, ***FIT*** *Fecal Immunochemical Test,* ***FS*** *Flexible Sigmoidosopy,* ***TC*** *Total Colonoscopy*

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Excluded: 50-74-year-old women and men in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due to limited eligible age range.

[3]Countries or regions with narrow age-range: Belgium Flemish region 56-74, Czech R. (TC) 55-74, Estonia 60-69, Finland 60-69, Greece (gFOBT) 50-70, Hungary 50-70, Ireland 60-69, Italy (FIT) 50-69, Italy (FS) 58-60, Luxembourg 55-74, Malta 55-66, Netherlands 55-75, Poland 55-64, Portugal Alentejo and Center 50-70, Spain 50-69, Sweden Stockholm 60-69, UK (gFOBT) England, Nothern Ireland and Wales 60-74, UK (FS) England 55-59.

[4]FS programme invites a single cohort of subjects aged 58 to 60 years. FIT is offered to individuals 59-69 years if unwilling to have FS.

[5]Wallonia-Brussels regions in Belgium have replaced gFOBT with FIT since march 2016.

Colorectal cancer screening programmes, continued (table 3.6)												
Number (x1,000) and proportion (%) of 50-74-year-old women and men in the European Union in combined national target populations[1] Estimates by programme status[2]												
	Population-based programmes			**Non-population-based programmes**			**No programme or excluded population[3]**			**Total**	
Nationwide				Germany[4]						**84,370**	**100.0%**
Rollout complete	Croatia, Czech, Denmark, Malta, Slovenia, United Kingdom (gFOBT)	17,697	11.6%								
Rollout ongoing	Ireland, Italy (FIT), Lithuania, Netherlands, Poland, Spain	36,020	23.6%								
Piloting	Cyprus, Estonia, Finland, Hungary	3,746	2.5%								
Planning	Germany, Luxembourg	26,908	17.6%								
Regional				Austria (other regions), Greece, Latvia	6,009	100.0%				**32,030**	**100.0%**
Rollout complete	Austria (Burgenland), Belgium, France, Italy (FIT or FS), Sweden	22,817	15.0%								
Rollout ongoing	Portugal, United Kingdom (FS)	3,204	2.1%								
Piloting											
Planning											
Excluded[2]							Bulgaria, Romania, Slovakia	9,509	100.0%	**36,075**	**100.0%**
No programme											
By age or region[4]							Foot note[5]	26,566	17.4%		
Total[2]		**110,392**	**72.4%**		**6,009**	**3.9%**		**36,075**	**23.7%**	**152,476**	**100.0%**

[1]Unless otherwise indicated in footnotes: estimates of age-eligible population are based on Eurostat projections for 2016.

[2]Total: Countries with dual-status (more than one programme going on or more than one test used), only one status was included - Austria, Bugerland FIT and other regions gFOBT; Czech Republic FIT; Germany FIT; Greece gFOBT, Italy FIT, Luxembourg FIT.

[3]Excluded: 50-74-year-old women and men in regions and/or age ranges not targeted by planned or existing programmes due to lack of nationwide policy and/or due to limited eligible age range.

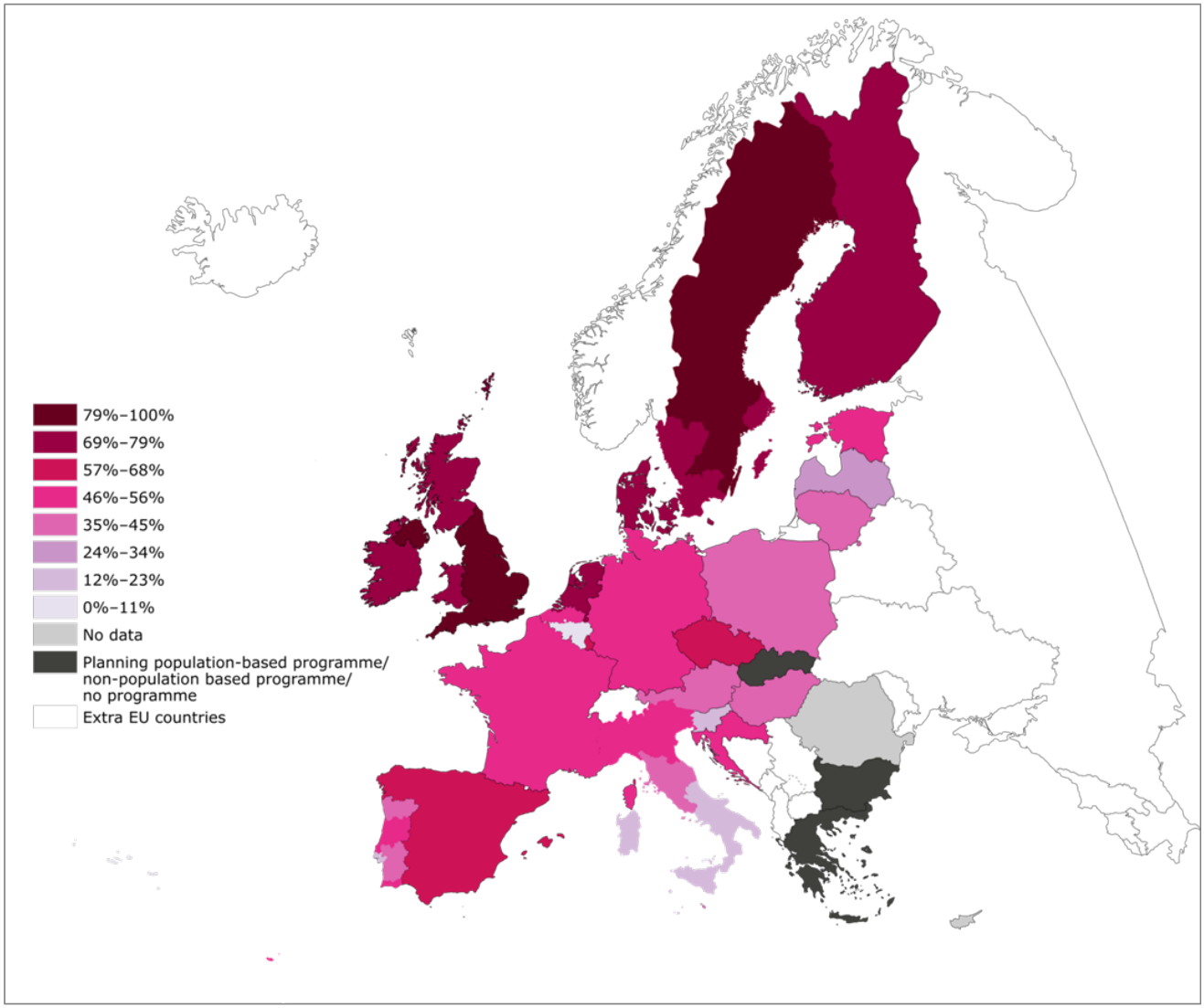
[4]Although Germany has a non-population based programme going on, in this table only the figures for the planning population-based programme are taking into account.

[5]Excluded by age or region: Belgium, Cyprus, Finland, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, Netherlands, Poland, Portugal, Spain, Sweden, United Kingdom.

8. Figures and tables

8.4. Breast cancer screening programmes in the European Union: performance indicators

Figure 4.1. Breast cancer screening programmes in the EU: examination coverage for the 50-69 years age range (table 4.1)*



*The estimates do not take into account opportunistic screening

Table 4.1. Breast cancer screening programmes in the EU

Invitation coverage and examination coverage in women aged 50-69 years

Age-50-69 years; Index year-2013 (unless otherwise specified)	Annual population EUROSTAT 2013	Women invited	Women screened	Invitation coverage (on annual population) %	Examination coverage (on annual population) %	Notes
Austria	531,160	0	196,049	**0.0%**	**36.9%**	2014
Belgium	691,515	689,459	228,204	**99.7%**	**33.0%**	
Belgium Brussels	58,008	58,499	6,040	**100.8%**	**10.4%**	
Belgium Flanders	406,504	406,908	204,101	**100.1%**	**50.2%**	2014
Belgium Wallonia	227,003	224,052	18,063	**98.7%**	**8.0%**	
Bulgaria	527,002	0	0	**0.0%**	**0.0%**	
Croatia	582,397	610,279	262,910	**104.8%**	**45.1%**	All data refer to a two-years period (2012-2013)
Cyprus	48,904	19,385	8,091	**39.6%**	**16.5%**	
Cyprus Nicosia	19,171	19,385	8,091	**101.1%**	**42.2%**	
Cyprus Other	29,733	0	0	**0.0%**	**0.0%**	
Czech Republic	708,367	0	418,475	**0.0%**	**59.1%**	
Denmark	357,246	294,022	257,224	**82.3%**	**72.0%**	
Estonia	72,087	49,906	33,106	**69.2%**	**45.9%**	50-64, 2014
Finland	373,976	342,616	284,433	**91.6%**	**76.1%**	2012
France	4,102,054	4,212,556	2,146,905	**102.7%**	**52.3%**	2012
Germany	5,377,480	4,881,399	2,832,631	**90.8%**	**52.7%**	2012
Greece	692,509	0	0	**0.0%**	**0.0%**	
Hungary	549,682	431,408	210,887	**78.5%**	**38.4%**	50-64
Ireland	189,595	209,533	144,508	**110.5%**	**76.2%**	50-64
Italy	3,875,770	2,737,153	1,515,395	**70.6%**	**39.1%**	
Italy North	1,791,441	1,587,856	1,004,576	**88.6%**	**56.1%**	
Italy Centre	775,321	623,671	330,685	**80.4%**	**42.7%**	
Italy South	1,309,008	525,626	180,134	**40.2%**	**13.8%**	
Latvia	144,392	142,115	48,459	**98.4%**	**33.6%**	
Lithuania	207,552	0	93,113	**0.0%**	**44.9%**	2014
Luxembourg	29,603	31,834	17,893	**107.5%**	**60.4%**	
Malta	19,716	15,531	7,169	**78.8%**	**36.4%**	3-years interval
Netherlands	1,086,042	1,049,781	841,444	**96.7%**	**77.5%**	
Poland	2,591,705	2,637,179	1,141,351	**101.8%**	**44.0%**	
Portugal	696,297	385,664	235,035	**55.4%**	**33.8%**	
Portugal Alentejo	49,085	35,212	20,589	**71.7%**	**41.9%**	
Portugal Algarve	27,586	21,418	15,377	**77.6%**	**55.7%**	
Portugal Azores	15,573	11,028	7,808	**70.8%**	**50.1%**	
Portugal Centre	155,141	123,666	82,561	**79.7%**	**53.2%**	
Portugal Lisboa	190,629	48,378	25,960	**25.4%**	**13.6%**	
Portugal Madeira	14,674	0	0	**0.0%**	**0.0%**	
Portugal Norte	243,609	145,962	82,740	**59.9%**	**34.0%**	
Romania	1,297,027	3,000	2,460	**0.2%**	**0.2%**	
Romania Cluj	5,000	3,000	2,460	**60.0%**	**49.2%**	2015
Romania Other	1,292,027	0	0	**0.0%**	**0.0%**	
Slovakia Republic	351,211	0	0	**0.0%**	**0.0%**	2009
Slovenia	134,371	28,066	25,695	**20.9%**	**19.1%**	
Spain	2,772,700	2,349,369	1,654,865	**84.7%**	**59.7%**	
Sweden	941,165	878,537	719,689	**93.3%**	**76.5%**	
Sweden Norra	32,753	29,918	26,512	**91.3%**	**80.9%**	Jämtland and Västernorrland (pop. 82455) excluded
Sweden Södra	209,208	194,822	162,621	**93.1%**	**77.7%**	40-74; 1.5 yrs int up to 54
Sweden Stockholm Gotland	119,236	114,023	83,451	**95.6%**	**70.0%**	50-69
Sweden Sydöstra	108,699	104,917	87,101	**96.5%**	**80.1%**	40-74
Sweden Uppsala Örebro	215,880	224,232	185,702	**103.9%**	**86.0%**	40-74
Sweden Västra Götaland	255,389	210,625	174,302	**82.5%**	**68.2%**	40-74 in Halland (2 yrs int) 40-74 in Gotaland (21 mo int)
United Kingdom	2,639,565	2,930,416	2,205,962	**111.0%**	**83.6%**	50-70, 3-years interval
UK England	2,193,165	2,475,061	1,874,528	**112.9%**	**85.5%**	50-70, 3-years interval, April 2013 to March 2014
UK Northern Ireland	71,394	74,029	57,110	**103.7%**	**80.0%**	50-70, 3-years interval
UK Scotland	237,968	236,670	172,427	**99.5%**	**72.5%**	50-70, 3-years interval, April 2013 to March 2014
UK Wales	137,038	144,656	101,897	**105.6%**	**74.4%**	50-70, 3-years interval
European total	**31,591,090**	**24,929,208**	**15,531,953**	**78.9%**	**49.2%**	

Cyprus Nicosia, Romania Cluj and all Swedish regions except Stockholm: EUROSTAT target population data not available, used own local sources.
Austria, Czech Republic and Lithuania did not issue or could not document personal invitations at the time of the index year.

Table 4.2 Breast cancer screening programmes in the EU

Participation rate (%)

Numerator (N) = Individuals screened of invited in the year
Denominator (D) = Individuals personally invited in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Belgium Brussels				5,105	58,499	**8.7%**				
Belgium Flanders				197,875	406,908	**48.6%**				
Belgium Wallonia				13,963	224,052	**6.2%**				
Croatia				262,910	610,279	**43.1%**				
Cyprus Nicosia				7,312	19,385	**37.7%**				
Denmark				245,593	294,022	**83.5%**				
Estonia				33,106	49,906	**66.3%**				*1*
Finland				284,433	342,616	**83.0%**				
France				2,146,905	4,212,556	**51.0%**	320,005	597,846	**53.5%**	
Germany				2,749,594	4,881,399	**56.3%**				
Hungary				254,514	431,408	**59.0%**				*2*
Ireland				143,911	209,533	**68.7%**				*1*
Italy	170,642	234,264	**72.8%**	1,515,395	2,737,153	**55.4%**	81,703	114,613	**71.3%**	
Italy North				1,004,576	1,587,856	**63.3%**				
Italy Centre				330,685	623,671	**53.0%**				
Italy South				180,134	525,626	**34.3%**				
Latvia				76,423	142,115	**53.8%**				
Luxembourg				18,032	31,834	**56.6%**				
Malta				9,027	15,531	**58.1%**				
Netherlands	52,450	70,110	**74.8%**	840,489	1,049,781	**80.1%**	123,651	160,402	**77.1%**	
Poland				1,663,746	2,637,179	**63.1%**				
Portugal Alentejo	4,812	9,237	**52.1%**	20,589	35,212	**58.5%**				
Portugal Centre	18,878	32,587	**57.9%**	82,561	123,666	**66.8%**				
Portugal Lisboa	6,237	13,513	**46.2%**	25,960	48,378	**53.7%**				
Portugal Norte	20,738	40,720	**50.9%**	82,740	145,962	**56.7%**				
Romania Cluj				2,460	3,000	**82.0%**				
Slovenia				23,158	28,066	**82.5%**				
Spain				1,654,865	2,349,369	**70.4%**				
Sweden Stockholm Gotland	38,727	55,727	**69.5%**	83,451	114,023	**73.2%**	10,962	14,679	**74.7%**	
UK England	184,743	265,611	**69.6%**	1,770,435	2,475,061	**71.5%**				*3*
UK Northern Ireland	1,586	2,153	**73.7%**	57,110	74,029	**77.1%**				*3*
UK Wales				102,446	144,656	**70.8%**				*3*
European Total	**498,813**	**723,922**	**68.9%**	**14,374,108**	**23,895,578**	**60.2%**	**536,321**	**887,540**	**60.4%**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years

Table 4.3. Breast cancer screening programmes in the EU

Completeness of data related to screening results, further assessment results and final diagnosis

Age-50-69 years	Completeness of screening tests results			Completeness of further assessment results			Completeness of final diagnosis of surgical referrals		
	No. of screening results available	No. of screening tests performed	%	No. of assessments results available	No. of assessments performed	%	No. of final diagnosis results available	No. of surgical referrals	%
Austria	196,049	196,049	**100%**	0	4,763	**0%**			
Belgium Brussels	6,036	6,040	**100%**	0	710	**0%**	39		
Belgium Flanders	204,101	204,101	**100%**	4,609	5,231	**88%**	1,049	1,049	**100%**
Belgium Wallonia	18,054	18,063	**100%**	1,234	1,528	**81%**	200	220	**91%**
Croatia	262,910	262,910	**100%**	0	798	**0%**	798		
Cyprus Nicosia	8,003	8,091	**99%**	806	806	**100%**	28	29	**97%**
Czech Republic	418,475	418,475	**100%**	32,050	32,050	**100%**	2,305	2,305	**100%**
Denmark	256,348	257,224	**100%**	3,075	6,753	**46%**	1,917	1,926	**100%**
Estonia	33,106	33,106	**100%**	0	865	**0%**	146		
Finland	284,433	284,433	**100%**	7,368	7,409	**99%**	1,951	2,036	**96%**
France	2,134,657	2,146,905	**99%**	190,323	201,446	**94%**	17,175	17,292	**99%**
Germany	2,832,631	2,832,631	**100%**	0	131,184	**0%**	17,311		
Hungary	210,887	210,887	**100%**	11,913	12,967	**92%**	912	912	**100%**
Ireland	143,911	144,508	**100%**	5,498	5,533	**99%**	1,150	1,151	**100%**
Italy	1,515,391	1,515,395	**100%**	86,453	88,197	**98%**	7,367	9,030	**82%**
Latvia	0	48,459	**0%**						
Lithuania	93,113	93,113	**100%**	0	6,816	**0%**			
Luxembourg	17,839	17,893	**100%**	1,047	1,070	**98%**	123	123	**100%**
Malta	7,139	7,169	**100%**	730	736	**99%**	49	49	**100%**
Netherlands	841,444	841,444	**100%**	19,048	19,567	**97%**	5,066	5,156	**98%**
Poland	1,141,351	1,141,351	**100%**	44,041	45,882	**96%**	6,908	6,908	**100%**
Portugal Alentejo	20,589	20,589	**100%**	314	333	**94%**	47	47	**100%**
Portugal Azores	7,039	7,808	**90%**	226	227	**100%**	40	40	**100%**
Portugal Centre	82,561	82,561	**100%**	1,999	2,043	**98%**	287	287	**100%**
Portugal Lisboa	25,760	25,960	**99%**	448	478	**94%**	125	125	**100%**
Portugal Norte	82,740	82,740	**100%**	4,594	4,765	**96%**	535	659	**81%**
Romania Cluj	0	2,460	**0%**						
Slovenia	23,158	25,695	**90%**	791	793	**100%**	155	155	**100%**
Spain	1,180,262	1,654,865	**71%**	23,670	52,751	**45%**	2,403	2,403	**100%**
Sweden Norra	0	26,512	**0%**						
Sweden Södra	0	162,621	**0%**						
Sweden Stockholm Gotland	83,451	83,451	**100%**	1,961	1,983	**99%**	553	596	**93%**
Sweden Sydöstra	0	87,101	**0%**						
Sweden Uppsala Örebro	0	185,702	**0%**						
Sweden Västra Götaland	0	174,302	**0%**						
UK England	1,894,528	1,894,528	**100%**	74,486	74,486	**100%**	17,260	17,260	**100%**
UK Northern Ireland	57,110	57,110	**100%**	1,940	1,947	**100%**	385	385	**100%**
UK Scotland	172,427	172,427	**100%**	8,573	8,588	**100%**	1,402	1,490	**94%**
UK Wales	101,846	101,897	**100%**	4,842	4,884	**99%**	1,135	1,135	**100%**

Tables 4.4.1. Breast cancer screening programmes in the EU: Other performance indicators

Further assessment rate (%)

Overall = initial + subsequent screening

Numerator (N) = Screening test positive

Denominator (D) = Information available on screening test result

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria	1,213	40,191	**3.0%**	4,763	196,049	**2.4%**	553	22,409	**2.5%**	
Belgium Brussels				710	6,036	**11.8%**				
Belgium Flanders				5,231	204,514	**2.6%**				
Belgium Wallonia				1,528	18,054	**8.5%**				
Cyprus Nicosia				806	8,003	**10.1%**				
Czech Republic	21,890	120,522	**18.2%**	32,050	418,475	**7.7%**	2,963	55,454	**5.3%**	
Denmark				6,753	256,348	**2.6%**				
Estonia				865	33,106	**2.6%**				*1*
Finland				7,409	284,433	**2.6%**				
France				201,446	2,134,657	**9.4%**	24,362	318,033	**7.7%**	
Germany				131,184	2,832,631	**4.6%**				
Hungary				12,967	210,887	**6.1%**				*2*
Ireland				5,533	143,911	**3.8%**				*1*
Italy	11,059	170,642	**6.5%**	88,197	1,515,391	**5.8%**	3,707	81,703	**4.5%**	
Lithuania				6,816	93,113	**7.3%**				
Luxembourg				1,070	17,839	**6.0%**				
Malta				736	7,139	**10.3%**				
Netherlands	3,182	51,287	**6.2%**	19,567	841,444	**2.3%**	2,908	123,731	**2.4%**	
Poland				45,882	1,141,351	**4.0%**				
Portugal Alentejo	177	4,812	**3.7%**	333	20,589	**1.6%**				
Portugal Azores	128	2,247	**5.7%**	227	7,039	**3.2%**	30	900	**3.3%**	
Portugal Centre	1,445	18,878	**7.7%**	2,043	82,561	**2.5%**				
Portugal Lisboa	224	6,237	**3.6%**	478	25,760	**1.9%**				
Portugal Norte	2,297	20,738	**11.1%**	4,765	82,740	**5.8%**				
Slovenia				793	23,158	**3.4%**				
Spain				52,751	1,180,262	**4.5%**				
Sweden Stockholm Gotland	1,162	38,727	**3.0%**	1,983	83,451	**2.4%**	307	10,962	**2.8%**	
UK England	14,190	184,743	**7.7%**	74,486	1,894,528	**3.9%**				*3*
UK Northern Ireland	116	1,586	**7.3%**	1,947	57,110	**3.4%**				*3*
UK Scotland				8,588	172,427	**5.0%**				*3*
UK Wales				4,884	101,846	**4.8%**				*3*
European Total	**57,083**	**660,610**	**8.6%**	**726,791**	**14,094,852**	**5.2%**	**34,830**	**613,192**	**5.7%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.4.2. Breast cancer screening programmes in the EU: Other performance indicators

Further assessment participation rate (%)

Overall = initial + subsequent screening

Numerator (N) = Further assessment performed

Denominator (D) = Info available on further assessment performance

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels										
Belgium Flanders				4,799	5,231	**91.7%**				
Belgium Wallonia				1,354	1,528	**88.6%**				
Cyprus Nicosia				637	806	**79.0%**				
Czech Republic	21,890	21,890	**100.0%**	32,050	32,050	**100.0%**	2,963	2,963	**100.0%**	
Denmark				6,366	6,366	**100.0%**				
Estonia										
Finland				7,400	7,409	**99.9%**				
France				193,342	201,442	**96.0%**	23,126	24,362	**94.9%**	
Germany				128,285	131,184	**97.8%**				
Hungary				11,913	12,967	**91.9%**				*2*
Ireland				5,498	5,533	**99.4%**				*1*
Italy	10,934	11,059	**98.9%**	86,453	88,197	**98.0%**	3,648	3,707	**98.4%**	
Lithuania										
Luxembourg				1,047	1,070	**97.9%**				
Malta				730	736	**99.2%**				
Netherlands	3,148	3,182	**98.9%**	19,288	19,567	**98.6%**	2,864	2,908	**98.5%**	
Poland				44,041	45,882	**96.0%**				
Portugal Alentejo	162	177	**91.5%**	314	333	**94.3%**				
Portugal Azores	126	128	**98.4%**	227	227	**100.0%**	30	30	**100.0%**	
Portugal Centre	1,413	1,445	**97.8%**	1,999	2,043	**97.8%**				
Portugal Lisboa	206	224	**92.0%**	448	478	**93.7%**				
Portugal Norte	2,266	2,297	**98.7%**	4,680	4,765	**98.2%**				
Slovenia				791	793	**99.7%**				
Spain				23,670	23,841	**99.3%**				
Sweden Stockholm Gotland	1,147	1,162	**98.7%**	1,962	1,983	**98.9%**	306	307	**99.7%**	
UK England	14,105	14,190	**99.4%**	73,891	74,486	**99.2%**				*3*
UK Northern Ireland	116	116	**100.0%**	1,940	1,947	**99.6%**				*3*
UK Scotland				8,540	8,588	**99.4%**				*3*
UK Wales				4,850	4,884	**99.3%**				*3*
European Total	**55,513**	**55,870**	**99.4%**	**666,515**	**684,336**	**97.4%**	**32,937**	**34,277**	**96.1%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.4.3. Breast cancer screening programmes in the EU: Other performance indicators

Treatment referral rate (%)

Overall = initial + subsequent screening

Numerator (N) = Treatment/Surgery referral or inoperable cancer

Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels										
Belgium Flanders				1,049	204,076	**0.5%**				
Belgium Wallonia				220	18,054	**1.2%**				
Cyprus Nicosia				29	8,091	**0.4%**				
Czech Republic	420	120,522	**0.3%**	2,305	418,475	**0.6%**	526	55,454	**0.9%**	
Denmark				1,926	257,224	**0.7%**				
Estonia										
Finland				2,036	284,433	**0.7%**				
France				17,292	2,146,905	**0.8%**	3,412	320,005	**1.1%**	
Germany										
Hungary				912	210,887	**0.4%**				*2*
Ireland				1,151	143,911	**0.8%**				*1*
Italy	815	170,642	**0.5%**	9,030	1,515,391	**0.6%**	902	81,703	**1.1%**	
Lithuania										
Luxembourg				123	17,839	**0.7%**				
Malta				49	7,169	**0.7%**				
Netherlands	384	51,287	**0.7%**	5,156	841,444	**0.6%**	1,131	123,731	**0.9%**	
Poland				6,908	1,141,351	**0.6%**				
Portugal Alentejo	5	4,812	**0.1%**	47	20,589	**0.2%**				
Portugal Azores	10	2,247	**0.4%**	40	7,039	**0.6%**	7	900	**0.8%**	
Portugal Centre	88	18,878	**0.5%**	287	82,561	**0.3%**				
Portugal Lisboa	19	6,237	**0.3%**	125	25,760	**0.5%**				
Portugal Norte	192	20,738	**0.9%**	659	82,740	**0.8%**				
Slovenia				155	23,158	**0.7%**				
Spain				2,403	491,734	**0.5%**				
Sweden Stockholm Gotland	166	38,727	**0.4%**	596	83,451	**0.7%**	133	10,962	**1.2%**	
UK England	1,603	184,743	**0.9%**	17,260	1,894,528	**0.9%**				*3*
UK Northern Ireland	17	1,586	**1.1%**	385	57,110	**0.7%**				*3*
UK Scotland				1,490	172,427	**0.9%**				*3*
UK Wales				1,135	101,897	**1.1%**				*3*
European Total	**3,719**	**620,419**	**0.6%**	**72,768**	**10,258,244**	**0.7%**	**6,111**	**592,755**	**1.0%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.4.4. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of CIS & invasive cancer (/1,000)

Overall = initial + subsequent screening

Numerator (N) = Carcinoma in situ (CIS) + Invasive breast cancers detected

Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				39	6,040	**6.46**				
Belgium Flanders				1,085	204,076	**5.32**				
Belgium Wallonia				115	18,054	**6.37**				
Cyprus Nicosia				28	8,091	**3.46**				
Czech Republic	357	120,522	**2.96**	2,194	418,475	**5.24**	514	55,454	**9.27**	
Denmark				1,735	257,224	**6.75**				
Estonia				146	33,106	**4.41**				*1*
Finland				1,614	284,433	**5.67**				
France				14,478	2,146,905	**6.74**	3,113	320,005	**9.73**	
Germany				17,311	2,832,631	**6.11**				
Hungary				762	210,887	**3.61**				*2*
Ireland				906	143,911	**6.30**				*1*
Italy	524	170,642	**3.07**	6,539	1,515,391	**4.32**	751	81,703	**9.19**	
Lithuania										
Luxembourg				114	17,839	**6.39**				
Malta				44	7,169	**6.14**				
Netherlands	349	51,287	**6.80**	5,066	841,444	**6.02**	1,126	123,731	**9.10**	
Poland				6,863	1,141,351	**6.01**				
Portugal Alentejo	5	4,812	**1.04**	47	20,589	**2.28**				
Portugal Azores	3	2,247	**1.34**	27	7,039	**3.84**	5	900	**5.56**	
Portugal Centre	38	18,878	**2.01**	217	82,561	**2.63**				
Portugal Lisboa	19	6,237	**3.05**	125	25,760	**4.85**				
Portugal Norte	70	20,738	**3.38**	354	82,740	**4.28**				
Slovenia				142	23,158	**6.13**				
Spain				2,202	491,734	**4.48**				*4, 5*
Sweden Stockholm Gotland	103	38,727	**2.66**	511	83,451	**6.12**	119	10,962	**10.86**	
UK England	1,198	184,743	**6.48**	15,941	1,894,528	**8.41**				*3*
UK Northern Ireland	11	1,586	**6.94**	362	57,110	**6.34**				*3*
UK Scotland				1,319	172,427	**7.65**				*3*
UK Wales				1,034	101,897	**10.15**				*3*
European Total	**2,677**	**620,419**	**4.31**	**81,320**	**13,130,021**	**6.19**	**5,628**	**592,755**	**9.49**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

4) Information on cancer detection is also available for a larger set of tests (1180262)

5) In the larger set DR of CIS & Invasive Cancer is 4.0

Tables 4.4.5. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of CIS (/1,000)

Overall = initial + subsequent screening

Numerator (N) = Carcinoma in situ (CIS) detected

Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				6	6,040	**0.99**				
Belgium Flanders				202	204,076	**0.99**				
Belgium Wallonia				21	18,054	**1.16**				
Cyprus Nicosia				8	8,091	**0.99**				
Czech Republic	59	120,522	**0.49**	249	418,475	**0.60**	46	55,454	**0.83**	
Denmark				145	257,224	**0.56**				
Estonia				4	33,106	**0.12**				*1*
Finland				202	284,433	**0.71**				
France				2,189	2,146,905	**1.02**	357	320,005	**1.12**	
Germany				3,389	2,832,631	**1.20**				
Hungary				90	210,887	**0.43**				*2*
Ireland				189	143,911	**1.31**				*1*
Italy	145	170,642	**0.85**	1,040	1,515,391	**0.69**	92	81,703	**1.13**	
Lithuania										
Luxembourg				18	17,839	**1.01**				
Malta				9	7,169	**1.26**				
Netherlands	126	51,287	**2.46**	1,186	841,444	**1.41**	208	123,731	**1.68**	
Poland				84	1,141,351	**0.07**				
Portugal Alentejo				9	20,589	**0.44**				
Portugal Azores	1	2,247	**0.45**	2	7,039	**0.28**				
Portugal Centre	5	18,878	**0.26**	2	82,561	**0.02**				
Portugal Lisboa	2	6,237	**0.32**	11	25,760	**0.43**				
Portugal Norte	16	20,738	**0.77**	61	82,740	**0.74**				
Slovenia				47	23,158	**2.03**				
Spain				296	491,734	**0.60**				*4, 5*
Sweden Stockholm Gotland	18	38,727	**0.46**	75	83,451	**0.90**	14	10,962	**1.28**	
UK England	363	184,743	**1.96**	3,255	1,894,528	**1.72**				*3*
UK Northern Ireland	2	1,586	**1.26**	56	57,110	**0.98**				*3*
UK Scotland				198	172,427	**1.15**				*3*
UK Wales				211	101,897	**2.07**				*3*
European Total	**737**	**615,607**	**1.20**	**13,254**	**13,130,021**	**1.01**	**717**	**591,855**	**1.21**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

4) Information on cancer detection is also available for a larger set of tests (1180262)

5) In the larger set DR of CIS is 0.6

Tables 4.4.6. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of invasive cancer (/1,000)

Overall = initial + subsequent screening

Numerator (N) = Invasive breast cancers detected

Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				33	6,040	**5.46**				
Belgium Flanders				883	204,076	**4.33**				
Belgium Wallonia				94	18,054	**5.21**				
Cyprus Nicosia				20	8,091	**2.47**				
Czech Republic	298	120,522	**2.47**	1,945	418,475	**4.65**	468	55,454	**8.44**	
Denmark				1,590	257,224	**6.18**				
Estonia				142	33,106	**4.29**				*1*
Finland				1,412	284,433	**4.96**				
France				12,289	2,146,905	**5.72**	2,756	320,005	**8.61**	
Germany				13,922	2,832,631	**4.91**				
Hungary				672	210,887	**3.19**				*2*
Ireland				717	143,911	**4.98**				*1*
Italy	379	170,642	**2.22**	5,499	1,515,391	**3.63**	659	81,703	**8.07**	
Lithuania										
Luxembourg				96	17,839	**5.38**				
Malta				35	7,169	**4.88**				
Netherlands	223	51,287	**4.35**	3,880	841,444	**4.61**	918	123,731	**7.42**	
Poland				6,779	1,141,351	**5.94**				
Portugal Alentejo	5	4,812	**1.04**	38	20,589	**1.85**				
Portugal Azores	2	2,247	**0.89**	25	7,039	**3.55**	5	900	**5.56**	
Portugal Centre	33	18,878	**1.75**	215	82,561	**2.60**				
Portugal Lisboa	17	6,237	**2.73**	114	25,760	**4.43**				
Portugal Norte	54	20,738	**2.60**	293	82,740	**3.54**				
Slovenia				95	23,158	**4.10**				
Spain				1,906	491,734	**3.88**				*4, 5*
Sweden Stockholm Gotland	85	38,727	**2.19**	436	83,451	**5.22**	105	10,962	**9.58**	
UK England	835	184,743	**4.52**	12,686	1,894,528	**6.70**				*3*
UK Northern Ireland	9	1,586	**5.67**	306	57,110	**5.36**				*3*
UK Scotland				1,121	172,427	**6.50**				*3*
UK Wales				823	101,897	**8.08**				*3*
European Total	**1,940**	**620,419**	**3.13**	**68,066**	**13,130,021**	**5.18**	**4,911**	**592,755**	**8.29**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

4) Information on cancer detection is also available for a larger set of tests (1180262)

5) In the larger set DR of Invasive cancer is 3.4

Tables 4.4.7. Breast cancer screening programmes in the EU: Other performance indicators

PPV of further assessment to detect CIS & invasive cancer (%)

Overall = initial + subsequent screening

Numerator (N) = Carcinoma in situ (CIS) + Invasive breast cancers detected

Denominator (D) = Further assessment performed

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels				39	393	**9.9%**				
Belgium Flanders				1,085	4,799	**22.6%**				
Belgium Wallonia				115	1,354	**8.5%**				
Cyprus Nicosia				28	637	**4.4%**				
Czech Republic	357	21,890	**1.6%**	2,194	32,050	**6.8%**	514	2,963	**17.3%**	
Denmark				1,735	6,366	**27.3%**				
Estonia										
Finland				1,614	7,400	**21.8%**				
France				14,478	193,342	**7.5%**	3,113	23,126	**13.5%**	
Germany				17,311	128,285	**13.5%**				
Hungary				762	11,913	**6.4%**				*2*
Ireland				906	5,498	**16.5%**				*1*
Italy	524	10,934	**4.8%**	6,539	86,453	**7.6%**	751	3,648	**20.6%**	
Lithuania										
Luxembourg				114	1,047	**10.9%**				
Malta				44	730	**6.0%**				
Netherlands	349	3,148	**11.1%**	5,066	19,288	**26.3%**	1,126	2,864	**39.3%**	
Poland				6,863	44,041	**15.6%**				
Portugal Alentejo	5	162	**3.1%**	47	314	**15.0%**				
Portugal Azores	3	126	**2.4%**	27	227	**11.9%**	5	30	**16.7%**	
Portugal Centre	38	1,413	**2.7%**	217	1,999	**10.9%**				
Portugal Lisboa	19	206	**9.2%**	125	448	**27.9%**				
Portugal Norte	70	2,266	**3.1%**	354	4,680	**7.6%**				
Slovenia				142	791	**18.0%**				
Spain				2,202	23,670	**9.3%**				*4, 5*
Sweden Stockholm Gotland	103	1,147	**9.0%**	511	1,962	**26.0%**	119	306	**38.9%**	
UK England	1,198	14,105	**8.5%**	15,941	73,921	**21.6%**				*3*
UK Northern Ireland	11	116	**9.5%**	362	1,940	**18.7%**				*3*
UK Scotland				1,319	8,540	**15.4%**				*3*
UK Wales				1,034	4,850	**21.3%**				*3*
European Total	**2,677**	**55,513**	**4.8%**	**81,174**	**666,938**	**12.2%**	**5,628**	**32,937**	**17.1%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

4) Information on cancer detection is also available for a larger set of tests (1180262)

5) In the larger set PPV to detect CIS & Invasive Cancer is 9.0%

Tables 4.4.8. Breast cancer screening programmes in the EU: Other performance indicators

% of total carcinomas which are CIS

Overall = initial + subsequent screening

Numerator (N) = Carcinoma in situ (CIS) detected

Denominator (D) = Carcinoma in situ (CIS) + Invasive breast cancers detected

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels				6	39	**15.4%**				
Belgium Flanders				202	1,085	**18.6%**				
Belgium Wallonia				21	115	**18.3%**				
Cyprus Nicosia				8	28	**28.6%**				
Czech Republic	59	357	**16.5%**	249	2,194	**11.3%**	46	514	**8.9%**	
Denmark				145	1,735	**8.4%**				
Estonia				4	146	**2.7%**				*1*
Finland				202	1,614	**12.5%**				
France				2,189	14,478	**15.1%**	357	3,113	**11.5%**	
Germany				3,389	17,311	**19.6%**				
Hungary				90	762	**11.8%**				*2*
Ireland				189	906	**20.9%**				*1*
Italy	145	524	**27.7%**	1,040	6,539	**15.9%**	92	751	**12.3%**	
Lithuania										
Luxembourg				18	114	**15.8%**				
Malta				9	44	**20.5%**				
Netherlands	126	349	**36.1%**	1,186	5,066	**23.4%**	208	1,126	**18.5%**	
Poland				84	6,863	**1.2%**				
Portugal Alentejo				9	47	**19.1%**				
Portugal Azores	1	3	**33.3%**	2	27	**7.4%**				
Portugal Centre	5	38	**13.2%**	2	217	**0.9%**				
Portugal Lisboa	2	19	**10.5%**	11	125	**8.8%**				
Portugal Norte	16	70	**22.9%**	61	354	**17.2%**				
Slovenia				47	142	**33.1%**				
Spain				296	2,202	**13.4%**				*4, 5*
Sweden Stockholm Gotland	18	103	**17.5%**	75	511	**14.7%**	14	119	**11.8%**	
UK England	363	1,198	**30.3%**	3,255	15,941	**20.4%**				*3*
UK Northern Ireland	2	11	**18.2%**	56	362	**15.5%**				*3*
UK Scotland				198	1,319	**15.0%**				*3*
UK Wales				211	1,034	**20.4%**				*3*
European Total	**737**	**2,672**	**27.6%**	**13,254**	**81,320**	**16.3%**	**717**	**5,623**	**12.8%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

4) Information on cancer detection is also available for a larger set of tests (1180262)

5) In the larger set proportion of CIS is 14.5%

Tables 4.4.9. Breast cancer screening programmes in the EU: Other performance indicators

Benign surgical biopsy rate (/1,000)

Overall = initial + subsequent screening

Numerator (N) = Benign lesions or no lesion

Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels										
Belgium Flanders				34	204,076	**0.17**				
Belgium Wallonia				84	18,054	**4.65**				
Cyprus Nicosia										
Czech Republic	63	120,522	**0.52**	111	418,475	**0.27**	12	55,454	**0.22**	
Denmark				182	257,224	**0.71**				
Estonia										
Finland				335	284,433	**1.18**				
France				2,697	2,146,905	**1.26**	272	320,005	**0.85**	
Germany										
Hungary				150	210,887	**0.71**				*2*
Ireland				241	143,911	**1.67**				*1*
Italy	201	170,642	**1.18**	828	1,515,391	**0.55**	33	81,703	**0.40**	
Lithuania										
Luxembourg				8	17,839	**0.45**				
Malta				5	7,169	**0.70**				
Netherlands										
Poland										
Portugal Alentejo	2	4,812	**0.42**	2	20,589	**0.10**				
Portugal Azores	7	2,247	**3.12**	13	7,039	**1.85**	2	900	**2.22**	
Portugal Centre	50	18,878	**2.65**	77	82,561	**0.93**				
Portugal Lisboa	3	6,237	**0.48**	10	25,760	**0.39**				
Portugal Norte	77	20,738	**3.71**	177	82,740	**2.14**				
Slovenia				13	23,158	**0.56**				
Spain				201	491,734	**0.41**				
Sweden Stockholm Gotland	40	38,727	**1.03**	42	83,451	**0.50**	10	10,962	**0.91**	
UK England	405	184,743	**2.19**	1,309	1,894,528	**0.69**				*3*
UK Northern Ireland	6	1,586	**3.78**	23	57,110	**0.40**				*3*
UK Scotland				83	172,427	**0.48**				*3*
UK Wales				101	101,897	**0.99**				*3*
European Total	**854**	**569,132**	**1.50**	**6,726**	**8,267,358**	**0.81**	**329**	**469,024**	**0.70**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.5.1. Breast cancer screening programmes in the EU: Other performance indicators

Further assessment rate (%)

Initial screening

Numerator (N) = Screening test positive

Denominator (D) = Information available on screening test result

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels				393	2742	**14.3%**				
Belgium Flanders				1693	37661	**4.5%**				
Belgium Wallonia				976	8353	**11.7%**				
Cyprus Nicosia				310	1568	**19.8%**				
Czech Republic	13406	55734	**24.1%**	7290	52147	**14.0%**	765	7212	**10.6%**	
Denmark				2022	40294	**5.0%**				
Estonia										*1*
Finland				1685	34824	**4.8%**				
France				59550	445519	**13.4%**	1988	16906	**11.8%**	
Germany				64216	688472	**9.3%**				
Hungary										*2*
Ireland				2347	29464	**8.0%**				*1*
Italy	5989	67353	**8.9%**	30490	306042	**10.0%**	258	2518	**10.2%**	
Lithuania				2566	29423	**8.7%**				
Luxembourg				398	3476	**11.4%**				
Malta				736	7139	**10.3%**				
Netherlands	3182	51274	**6.2%**	3678	57157	**6.4%**	16	302	**5.3%**	
Poland										
Portugal Alentejo	135	2497	**5.4%**	69	1433	**4.8%**				
Portugal Azores	85	1033	**8.2%**	65	674	**9.6%**	9	74	**12.2%**	
Portugal Centre	1022	8383	**12.2%**	397	4534	**8.8%**				
Portugal Lisboa	169	3415	**4.9%**	168	3251	**5.2%**				
Portugal Norte	1929	14734	**13.1%**	3276	33989	**9.6%**				
Slovenia				391	6752	**5.8%**				
Spain				13162	126511	**10.4%**				
Sweden Stockholm Gotland	26	663	**3.9%**	40	1376	**2.9%**	2	95	**2.1%**	
UK England										*3*
UK Northern Ireland	116	1586	**7.3%**	731	10390	**7.0%**				*3*
UK Scotland				3537	35164	**10.1%**				*3*
UK Wales				1597	17431	**9.2%**				*3*
European total	**26,059**	**206,672**	**12.6%**	**201,783**	**1,985,786**	**10.2%**	**3,038**	**27,107**	**11.2%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.5.2. Breast cancer screening programmes in the EU: Other performance indicators

Further assessment participation rate (%)

Initial screening

Numerator (N) = Further assessment performed

Denominator (D) = Info available on further assessment performance

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels										
Belgium Flanders				1522	1693	**89.9%**				
Belgium Wallonia				853	976	**87.4%**				
Cyprus Nicosia				256	310	**82.6%**				
Czech Republic	13406	13406	**100.0%**	7290	7290	**100.0%**	765	765	**100.0%**	
Denmark				1911	1911	**100.0%**				
Estonia										
Finland				1684	1685	**99.9%**				
France				57221	59548	**96.1%**	1875	1988	**94.3%**	
Germany										
Hungary										*2*
Ireland				2327	2347	**99.1%**				*1*
Italy	5909	5989	**98.7%**	29701	30490	**97.4%**	251	258	**97.3%**	
Lithuania										
Luxembourg				382	398	**96.0%**				
Malta				730	736	**99.2%**				
Netherlands	3148	3182	**98.9%**	3631	3678	**98.7%**	16	16	**100.0%**	
Poland										
Portugal Alentejo	123	135	**91.1%**	62	69	**89.9%**				
Portugal Azores	83	85	**97.6%**	65	65	**100.0%**	9	9	**100.0%**	
Portugal Centre	998	1022	**97.7%**	377	397	**95.0%**				
Portugal Lisboa	151	169	**89.3%**	151	168	**89.9%**				
Portugal Norte	1899	1929	**98.4%**	3206	3276	**97.9%**				
Slovenia				389	391	**99.5%**				
Spain				3076	3111	**98.9%**				
Sweden Stockholm Gotland	23	26	**88.5%**	40	40	**100.0%**	2	2	**100.0%**	
UK England										*3*
UK Northern Ireland	116	116	**100.0%**	728	731	**99.6%**				*3*
UK Scotland				3508	3537	**99.2%**				*3*
UK Wales				1577	1597	**98.7%**				*3*
European total	**25,856**	**26,059**	**99.2%**	**120,687**	**124,444**	**97.0%**	**2,918**	**3,038**	**96.1%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.5.3. Breast cancer screening programmes in the EU: Other performance indicators

Treatment referral rate (%)

Initial screening

Numerator (N) = Treatment/Surgery referral or inoperable ca
Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels										
Belgium Flanders				203	37441	**0.5%**				
Belgium Wallonia				129	8353	**1.5%**				
Cyprus Nicosia				9	1591	**0.6%**				
Czech Republic	215	55734	**0.4%**	453	52147	**0.9%**	110	7212	**1.5%**	
Denmark				366	40532	**0.9%**				
Estonia										
Finland				278	34824	**0.8%**				
France				4533	447832	**1.0%**	358	16984	**2.1%**	
Germany										
Hungary										*2*
Ireland				379	29464	**1.3%**				*1*
Italy	444	67353	**0.7%**	2226	306042	**0.7%**	59	2518	**2.3%**	
Lithuania										
Luxembourg				26	3476	**0.7%**				
Malta				49	7169	**0.7%**				
Netherlands	384	51274	**0.7%**	484	57157	**0.8%**	8	302	**2.6%**	
Poland										
Portugal Alentejo	4	2497	**0.2%**	8	1433	**0.6%**				
Portugal Azores	8	1033	**0.8%**	7	674	**1.0%**	1	74	**1.4%**	
Portugal Centre	58	8383	**0.7%**	22	4534	**0.5%**				
Portugal Lisboa	9	3415	**0.3%**	20	3251	**0.6%**				
Portugal Norte	152	14734	**1.0%**	376	33989	**1.1%**				
Slovenia				61	6752	**0.9%**				
Spain				217	35038	**0.6%**				
Sweden Stockholm Gotland	4	663	**0.6%**	10	1376	**0.7%**				
UK England										*3*
UK Northern Ireland	17	1586	**1.1%**	71	10390	**0.7%**				*3*
UK Scotland				325	35164	**0.9%**				*3*
UK Wales				229	17445	**1.3%**				*3*
European total	**1,295**	**206,672**	**0.6%**	**10,481**	**1,176,074**	**0.9%**	**536**	**27,090**	**2.0%**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years

Tables 4.5.4. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of CIS & invasive cancer (/1,000)

Initial screening

Numerator (N) = Carcinoma in situ (CIS) + Invasive breast cancers detected
Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				16	2743	**5.83**				
Belgium Flanders				208	37441	**5.56**				
Belgium Wallonia				61	8353	**7.30**				
Cyprus Nicosia				8	1591	**5.03**				
Czech Republic	181	55734	**3.25**	432	52147	**8.28**	105	7212	**14.56**	
Denmark				284	40532	**7.01**				
Estonia										*1*
Finland				171	34824	**4.91**				
France				3690	447832	**8.24**	336	16984	**19.78**	
Germany				5316	688472	**7.72**				
Hungary										*2*
Ireland				260	29464	**8.82**				*1*
Italy	271	67353	**4.02**	1411	306042	**4.61**	52	2518	**20.65**	
Lithuania										
Luxembourg				26	3476	**7.48**				
Malta				44	7169	**6.14**				
Netherlands	349	51274	**6.81**	444	57157	**7.77**	8	302	**26.49**	
Poland										
Portugal Alentejo	4	2497	**1.60**	8	1433	**5.58**				
Portugal Azores	2	1033	**1.94**	5	674	**7.42**	1	74	**13.51**	
Portugal Centre	25	8383	**2.98**	22	4534	**4.85**				
Portugal Lisboa	9	3415	**2.64**	20	3251	**6.15**				
Portugal Norte	57	14734	**3.87**	201	33989	**5.91**				
Slovenia				51	6752	**7.55**				
Spain				184	35038	**5.25**				*4, 5*
Sweden Stockholm Gotland	3	663	**4.52**	8	1376	**5.81**				
UK England										*3*
UK Northern Ireland	11	1586	**6.94**	64	10390	**6.16**				*3*
UK Scotland				252	35164	**7.17**				*3*
UK Wales				181	17445	**10.38**				*3*
European total	**912**	**206,672**	**4.41**	**13,367**	**1,867,289**	**7.16**	**502**	**27,090**	**18.53**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years
4) Information on cancer detection is also available for a larger set of initial tests (126511)
5) In the larger set DR for CIS & Invasive Cancer is 5.0

Tables 4.5.5. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of CIS (/1,000)

Initial screening

Numerator (N) = CIS detected
Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				2	2743	**0.73**				
Belgium Flanders				43	37441	**1.15**				
Belgium Wallonia				11	8353	**1.32**				
Cyprus Nicosia				3	1591	**1.89**				
Czech Republic	28	55734	**0.50**	40	52147	**0.77**	11	7212	**1.53**	
Denmark				33	40532	**0.81**				
Estonia										*1*
Finland				34	34824	**0.98**				
France				519	447832	**1.16**	26	16984	**1.53**	
Germany				1106	688472	**1.61**				
Hungary										*2*
Ireland				59	29464	**2.00**				*1*
Italy	82	67353	**1.22**	199	306042	**0.65**	5	2518	**1.99**	
Lithuania										
Luxembourg				4	3476	**1.15**				
Malta				9	7169	**1.26**				
Netherlands	126	51274	**2.46**	140	57157	**2.45**	2	302	**6.62**	
Poland										
Portugal Alentejo				4	1433	**2.79**				
Portugal Azores	1	1033	**0.97**							
Portugal Centre	5	8383	**0.60**	2	4534	**0.44**				
Portugal Lisboa				3	3251	**0.92**				
Portugal Norte	13	14734	**0.88**	41	33989	**1.21**				
Slovenia				26	6752	**3.85**				
Spain				26	35038	**0.74**				*4, 5*
Sweden Stockholm Gotland				1	1376	**0.73**				
UK England										*3*
UK Northern Ireland	2	1586	**1.26**	7	10390	**0.67**				*3*
UK Scotland				43	35164	**1.22**				*3*
UK Wales				46	17445	**2.64**				*3*
European total	**257**	**200,097**	**1.28**	**2,401**	**1,866,615**	**1.29**	**44**	**27,016**	**1.63**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years
4) Information on cancer detection is also available for a larger set of initial tests (126511)
5) In the larger set DR of CIS is 0.9

Tables 4.5.6. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of invasive cancer (/1,000)

Initial screening

Numerator (N) = Invasive breast cancers detected
Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				14	2743	**5.10**				
Belgium Flanders				165	37441	**4.41**				
Belgium Wallonia				50	8353	**5.99**				
Cyprus Nicosia				5	1591	**3.14**				
Czech Republic	153	55734	**2.75**	392	52147	**7.52**	94	7212	**13.03**	
Denmark				251	40532	**6.19**				
Estonia										*1*
Finland				137	34824	**3.93**				
France				3171	447832	**7.08**	310	16984	**18.25**	
Germany				4210	688472	**6.11**				
Hungary										*2*
Ireland				201	29464	**6.82**				*1*
Italy	189	67353	**2.81**	1212	306042	**3.96**	47	2518	**18.67**	
Lithuania										
Luxembourg				22	3476	**6.33**				
Malta				35	7169	**4.88**				
Netherlands	223	51274	**4.35**	304	57157	**5.32**	6	302	**19.87**	
Poland										
Portugal Alentejo	4	2497	**1.60**	4	1433	**2.79**				
Portugal Azores	1	1033	**0.97**	5	674	**7.42**	1	74	**13.51**	
Portugal Centre	20	8383	**2.39**	20	4534	**4.41**				
Portugal Lisboa	9	3415	**2.64**	17	3251	**5.23**				
Portugal Norte	44	14734	**2.99**	160	33989	**4.71**				
Slovenia				25	6752	**3.70**				
Spain				158	35038	**4.51**				*4, 5*
Sweden Stockholm Gotland	3	663	**4.52**	7	1376	**5.09**				
UK England										*3*
UK Northern Ireland	9	1586	**5.67**	57	10390	**5.49**				*3*
UK Scotland				209	35164	**5.94**				*3*
UK Wales				135	17445	**7.74**				*3*
European total	**655**	**206,672**	**3.17**	**10,966**	**1,867,289**	**5.87**	**458**	**27,090**	**16.91**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years
4) Information on cancer detection is also available for a larger set of initial tests (126511)
5) In the larger set DR of invasive cancer is 4.1

Tables 4.5.7. Breast cancer screening programmes in the EU: Other performance indicators

PPV of further assessment to detect CIS & invasive cancer (%)

Initial screening

Numerator (N) = CIS + Invasive breast cancers detected
Denominator (D) = Further assessment performed

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels				16	393	**4.1%**				
Belgium Flanders				208	1522	**13.7%**				
Belgium Wallonia				61	853	**7.2%**				
Cyprus Nicosia				8	256	**3.1%**				
Czech Republic	181	13406	**1.4%**	432	7290	**5.9%**	105	765	**13.7%**	
Denmark				284	1911	**14.9%**				
Estonia										
Finland				171	1684	**10.2%**				
France				3690	57221	**6.4%**	336	1875	**17.9%**	
Germany										
Hungary										*2*
Ireland				260	2327	**11.2%**				*1*
Italy	271	5909	**4.6%**	1411	29701	**4.8%**	52	251	**20.7%**	
Lithuania										
Luxembourg				26	382	**6.8%**				
Malta				44	730	**6.0%**				
Netherlands	349	3148	**11.1%**	444	3631	**12.2%**	8	16	**50.0%**	
Poland										
Portugal Alentejo	4	123	**3.3%**	8	62	**12.9%**				
Portugal Azores	2	83	**2.4%**	5	65	**7.7%**	1	9	**11.1%**	
Portugal Centre	25	998	**2.5%**	22	377	**5.8%**				
Portugal Lisboa	9	151	**6.0%**	20	151	**13.2%**				
Portugal Norte	57	1899	**3.0%**	201	3206	**6.3%**				
Slovenia				51	389	**13.1%**				
Spain				184	3076	**6.0%**				*4, 5*
Sweden Stockholm Gotland	3	23	**13.0%**	8	40	**20.0%**				
UK England										*3*
UK Northern Ireland	11	116	**9.5%**	64	728	**8.8%**				*3*
UK Scotland				252	3508	**7.2%**				*3*
UK Wales				181	1577	**11.5%**				*3*
European total	**912**	**25,856**	**3.5%**	**8,051**	**121,080**	**6.6%**	**502**	**2,916**	**17.2%**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years
4) Information on cancer detection is also available for a larger set of initial tests (126511)
5) In the larger set PPV to detect CIS & Invasive Cancer is 4.8%

Tables 4.5.8. Breast cancer screening programmes in the EU: Other performance indicators

% of total carcinomas which are CIS

Initial screening

Numerator (N) = CIS detected

Denominator (D) = CIS + Invasive breast cancers detected

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels				2	16	**12.5%**				
Belgium Flanders				43	208	**20.7%**				
Belgium Wallonia				11	61	**18.0%**				
Cyprus Nicosia				3	8	**37.5%**				
Czech Republic	28	181	**15.5%**	40	432	**9.3%**	11	105	**10.5%**	
Denmark				33	284	**11.6%**				
Estonia										*1*
Finland				34	171	**19.9%**				
France				519	3690	**14.1%**	26	336	**7.7%**	
Germany				1106	5316	**20.8%**				
Hungary										*2*
Ireland				59	260	**22.7%**				*1*
Italy	82	271	**30.3%**	199	1411	**14.1%**	5	52	**9.6%**	
Lithuania										
Luxembourg				4	26	**15.4%**				
Malta				9	44	**20.5%**				
Netherlands	126	349	**36.1%**	140	444	**31.5%**	2	8	**25.0%**	
Poland										
Portugal Alentejo				4	8	**50.0%**				
Portugal Azores	1	2	**50.0%**							
Portugal Centre	5	25	**20.0%**	2	22	**9.1%**				
Portugal Lisboa				3	20	**15.0%**				
Portugal Norte	13	57	**22.8%**	41	201	**20.4%**				
Slovenia				26	51	**51.0%**				
Spain				26	184	**14.1%**				*4, 5*
Sweden Stockholm Gotland				1	8	**12.5%**				
UK England										*3*
UK Northern Ireland	2	11	**18.2%**	7	64	**10.9%**				*3*
UK Scotland				43	252	**17.1%**				*3*
UK Wales				46	181	**25.4%**				*3*
European total	**257**	**896**	**28.7%**	**2,401**	**13,362**	**18.0%**	**44**	**501**	**8.8%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

4) Information on cancer detection is also available for a larger set of initial tests (126511)

5) In the larger set proportion of CIS is 18.5%

Tables 4.5.9. Breast cancer screening programmes in the EU: Other performance indicators

Benign surgical biopsy rate (/1,000)

Initial screening

Numerator (N) = Benign lesions or no lesion

Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels										
Belgium Flanders				11	37441	**0.29**				
Belgium Wallonia				59	8353	**7.06**				
Cyprus Nicosia										
Czech Republic	34	55734	**0.61**	21	52147	**0.40**	5	7212	**0.69**	
Denmark				79	40532	**1.95**				
Estonia										
Finland				86	34824	**2.47**				
France				816	447832	**1.82**	18	16984	**1.06**	
Germany										
Hungary										*2*
Ireland				118	29464	**4.00**				*1*
Italy	124	67353	**1.84**	310	306042	**1.01**	1	2518	**0.40**	
Lithuania										
Luxembourg										
Malta				5	7169	**0.70**				
Netherlands										
Poland										
Portugal Alentejo	1	2497	**0.40**	1	1433	**0.70**				
Portugal Azores	6	1033	**5.81**	2	674	**2.97**				
Portugal Centre	33	8383	**3.94**	11	4534	**2.43**				
Portugal Lisboa	1	3415	**0.29**	1	3251	**0.31**				
Portugal Norte	60	14734	**4.07**	120	33989	**3.53**				
Slovenia				10	6752	**1.48**				
Spain				33	35038	**0.94**				
Sweden Stockholm Gotland				1	1376	**0.73**				
UK England										*3*
UK Northern Ireland	6	1586	**3.78**	7	10390	**0.67**				*3*
UK Scotland				39	35164	**1.11**				*3*
UK Wales				48	17445	**2.75**				*3*
European total	**265**	**154,735**	**1.71**	**1,778**	**1,113,850**	**1.60**	**24**	**26,714**	**0.90**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.6.1. Breast cancer screening programmes in the EU: Other performance indicators

Further assessment rate (%)

Subsequent screening

Numerator (N) = Screening test positive

Denominator (D) = Information available on screening test result

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels				317	3294	**9.6%**				
Belgium Flanders				3538	166853	**2.1%**				
Belgium Wallonia				552	9701	**5.7%**				
Cyprus Nicosia				496	6435	**7.7%**				
Czech Republic	8484	64788	**13.1%**	24760	366328	**6.8%**	2198	48242	**4.6%**	
Denmark				4731	216054	**2.2%**				
Estonia										*1*
Finland				5724	249609	**2.3%**				
France				141896	1689138	**8.4%**	22374	301127	**7.4%**	
Germany				66968	2144159	**3.1%**				
Hungary										*2*
Ireland				3186	114447	**2.8%**				*1*
Italy	5070	103289	**4.9%**	57707	1209349	**4.8%**	3449	79185	**4.4%**	
Lithuania				4250	63690	**6.7%**				
Luxembourg				672	14363	**4.7%**				
Malta										
Netherlands				15889	784287	**2.0%**	2892	123429	**2.3%**	
Poland										
Portugal Alentejo	42	2315	**1.8%**	264	19156	**1.4%**				
Portugal Azores	43	1214	**3.5%**	162	6365	**2.5%**	21	826	**2.5%**	
Portugal Centre	423	10495	**4.0%**	1646	78027	**2.1%**				
Portugal Lisboa	55	2822	**1.9%**	310	22509	**1.4%**				
Portugal Norte	368	6004	**6.1%**	1489	48751	**3.1%**				
Slovenia				402	16406	**2.5%**				
Spain				30005	944739	**3.2%**				
Sweden Stockholm Gotland	1136	38064	**3.0%**	1943	82075	**2.4%**	305	10867	**2.8%**	
UK England										*3*
UK Northern Ireland				1216	46720	**2.6%**				*3*
UK Scotland				5051	137263	**3.7%**				*3*
UK Wales				3287	84415	**3.9%**				*3*
European total	**15,621**	**228,991**	**6.8%**	**376,461**	**8,524,133**	**4.4%**	**31,239**	**563,676**	**5.5%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.6.2. Breast cancer screening programmes in the EU: Other performance indicators

Further assessment participation rate (%)

Subsequent screening

Numerator (N) = Further assessment performed

Denominator (D) = Info available on further assessment performance

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels										
Belgium Flanders				3277	3538	**92.6%**				
Belgium Wallonia				501	552	**90.8%**				
Cyprus Nicosia				381	496	**76.8%**				
Czech Republic	8484	8484	**100.0%**	24760	24760	**100.0%**	2198	2198	**100.0%**	
Denmark				4455	4455	**100.0%**				
Estonia										
Finland				5716	5724	**99.9%**				
France				136121	141894	**95.9%**	21251	22374	**95.0%**	
Germany										
Hungary										*2*
Ireland				3171	3186	**99.5%**				*1*
Italy	5025	5070	**99.1%**	56752	57707	**98.3%**	3397	3449	**98.5%**	
Lithuania										
Luxembourg				665	672	**99.0%**				
Malta										
Netherlands				15657	15889	**98.5%**	2848	2892	**98.5%**	
Poland										
Portugal Alentejo	39	42	**92.9%**	252	264	**95.5%**	21	21	**100.0%**	
Portugal Azores	43	43	**100.0%**	162	162	**100.0%**				
Portugal Centre	415	423	**98.1%**	1622	1646	**98.5%**				
Portugal Lisboa	55	55	**100.0%**	297	310	**95.8%**				
Portugal Norte	367	368	**99.7%**	1474	1489	**99.0%**				
Slovenia				402	402	**100.0%**				
Spain				11027	11146	**98.9%**				
Sweden Stockholm Gotland	1124	1136	**98.9%**	1922	1943	**98.9%**	304	305	**99.7%**	
UK England										*3*
UK Northern Ireland				1212	1216	**99.7%**				*3*
UK Scotland				5032	5051	**99.6%**				*3*
UK Wales				3273	3287	**99.6%**				*3*
European total	**15,552**	**15,621**	**99.6%**	**278,131**	**285,789**	**97.3%**	**30,019**	**31,239**	**96.1%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

Tables 4.6.3. Breast cancer screening programmes in the EU: Other performance indicators

Treatment referral rate (%)

Subsequent screening

Numerator (N) = Treatment/Surgery referral or inoperable ca
Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels										
Belgium Flanders				846	166635	**0.5%**				
Belgium Wallonia				91	9701	**0.9%**				
Cyprus Nicosia				20	6500	**0.3%**				
Czech Republic	205	64788	**0.3%**	1852	366328	**0.5%**	416	48242	**0.9%**	
Denmark				1560	216692	**0.7%**				
Estonia										
Finland				1758	249609	**0.7%**				
France				12759	1699073	**0.8%**	3054	303021	**1.0%**	
Germany										
Hungary										*2*
Ireland				772	114447	**0.7%**				*1*
Italy	371	103289	**0.4%**	6804	1209349	**0.6%**	843	79185	**1.1%**	
Lithuania										
Luxembourg				97	14363	**0.7%**				
Malta										
Netherlands				4672	784287	**0.6%**	1123	123429	**0.9%**	
Poland										
Portugal Alentejo	1	2315	**0.0%**	39	19156	**0.2%**				
Portugal Azores	2	1214	**0.2%**	33	6365	**0.5%**	6	826	**0.7%**	
Portugal Centre	30	10495	**0.3%**	265	78027	**0.3%**				
Portugal Lisboa	10	2822	**0.4%**	105	22509	**0.5%**				
Portugal Norte	40	6004	**0.7%**	283	48751	**0.6%**				
Slovenia				94	16406	**0.6%**				
Spain				1622	347684	**0.5%**				
Sweden Stockholm Gotland	162	38064	**0.4%**	586	82075	**0.7%**	133	10867	**1.2%**	
UK England										*3*
UK Northern Ireland				314	46720	**0.7%**				*3*
UK Scotland				1165	137263	**0.8%**				*3*
UK Wales				906	84452	**1.1%**				*3*
European total	**821**	**228,991**	**0.4%**	**36,643**	**5,726,392**	**0.6%**	**5,575**	**565,570**	**1.0%**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years

Tables 4.6.4. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of CIS & invasive cancer (/1,000)

Subsequent screening

Numerator (N) = Carcinoma in situ (CIS) + Invasive breast cancers detected
Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				23	3297	**6.98**				
Belgium Flanders				877	166635	**5.26**				
Belgium Wallonia				54	9701	**5.57**				
Cyprus Nicosia				20	6500	**3.08**				
Czech Republic	176	64788	**2.72**	1762	366328	**4.81**	409	48242	**8.48**	
Denmark				1451	216692	**6.70**				
Estonia										*1*
Finland				1443	249609	**5.78**				
France				10788	1699073	**6.35**	2777	303021	**9.16**	
Germany				11995	2144159	**5.59**				
Hungary										*2*
Ireland				646	114447	**5.64**				*1*
Italy	253	103289	**2.45**	5128	1209349	**4.24**	699	79185	**8.83**	
Lithuania										
Luxembourg				88	14363	**6.13**				
Malta										
Netherlands				4622	784287	**5.89**	1118	123429	**9.06**	
Poland										
Portugal Alentejo	1	2315	**0.43**	39	19156	**2.04**				
Portugal Azores	1	1214	**0.82**	22	6365	**3.46**	4	826	**4.84**	
Portugal Centre	13	10495	**1.24**	195	78027	**2.50**				
Portugal Lisboa	10	2822	**3.54**	105	22509	**4.66**				
Portugal Norte	13	6004	**2.17**	153	48751	**3.14**				
Slovenia				91	16406	**5.55**				
Spain				1482	347684	**4.26**				*4, 5*
Sweden Stockholm Gotland	100	38064	**2.63**	503	82075	**6.13**	119	10867	**10.95**	
UK England										*3*
UK Northern Ireland				298	46720	**6.38**				*3*
UK Scotland				1067	137263	**7.77**				*3*
UK Wales				853	84452	**10.10**				*3*
European total	**567**	**228,991**	**2.48**	**43,705**	**7,873,848**	**5.55**	**5,126**	**565,570**	**9.06**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years
4) Information on cancer detection is also available for a larger set of subsequent tests (944739)
5) In the larger set DR of CIS & invasive cancer is 3.8

Tables 4.6.5. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of CIS (/1,000)

Subsequent screening

Numerator (N) = Carcinoma in situ (CIS) detected
Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				4	3297	**1.21**				
Belgium Flanders				159	166635	**0.95**				
Belgium Wallonia				10	9701	**1.03**				
Cyprus Nicosia				5	6500	**0.77**				
Czech Republic	31	64788	**0.48**	209	366328	**0.57**	35	48242	**0.73**	
Denmark				112	216692	**0.52**				
Estonia										*1*
Finland				168	249609	**0.67**				
France				1670	1699073	**0.98**	331	303021	**1.09**	
Germany				2283	2144159	**1.06**				
Hungary										*2*
Ireland				130	114447	**1.14**				*1*
Italy	63	103289	**0.61**	841	1209349	**0.70**	87	79185	**1.10**	
Lithuania										
Luxembourg				14	14363	**0.97**				
Malta										
Netherlands				1046	784287	**1.33**	206	123429	**1.67**	
Poland										
Portugal Alentejo				5	19156	**0.26**				
Portugal Azores				2	6365	**0.31**				
Portugal Centre										
Portugal Lisboa	2	2822	**0.71**	8	22509	**0.36**				
Portugal Norte	3	6004	**0.50**	20	48751	**0.41**				
Slovenia				21	16406	**1.28**				
Spain				191	347684	**0.55**				*4, 5*
Sweden Stockholm Gotland	18	38064	**0.47**	74	82075	**0.90**	14	10867	**1.29**	
UK England										*3*
UK Northern Ireland				49	46720	**1.05**				*3*
UK Scotland				155	137263	**1.13**				*3*
UK Wales				165	84452	**1.95**				*3*
European total	**117**	**214,967**	**0.54**	**7,341**	**7,795,821**	**0.94**	**673**	**564,744**	**1.19**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years
4) Information on cancer detection is also available for a larger set of subsequent tests (944739)
5) In the larger set DR of CIS is 0.5

Tables 4.6.6. Breast cancer screening programmes in the EU: Other performance indicators

Detection rate of invasive cancer (/1,000)

Subsequent screening

Numerator (N) = Invasive breast cancers detected
Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels				19	3297	**5.76**				
Belgium Flanders				718	166635	**4.31**				
Belgium Wallonia				44	9701	**4.54**				
Cyprus Nicosia				15	6500	**2.31**				
Czech Republic	145	64788	**2.24**	1553	366328	**4.24**	374	48242	**7.75**	
Denmark				1339	216692	**6.18**				
Estonia										*1*
Finland				1275	249609	**5.11**				
France				9118	1699073	**5.37**	2446	303021	**8.07**	
Germany				9712	2144159	**4.53**				
Hungary										*2*
Ireland				516	114447	**4.51**				*1*
Italy	190	103289	**1.84**	4287	1209349	**3.54**	612	79185	**7.73**	
Lithuania										
Luxembourg				74	14363	**5.15**				
Malta										
Netherlands				3576	784287	**4.56**	912	123429	**7.39**	
Poland										
Portugal Alentejo	1	2315	**0.43**	34	19156	**1.77**				
Portugal Azores	1	1214	**0.82**	20	6365	**3.14**	4	826	**4.84**	
Portugal Centre	13	10495	**1.24**	195	78027	**2.50**				
Portugal Lisboa	8	2822	**2.83**	97	22509	**4.31**				
Portugal Norte	10	6004	**1.67**	133	48751	**2.73**				
Slovenia				70	16406	**4.27**				
Spain				1291	347684	**3.71**				*4, 5*
Sweden Stockholm Gotland	82	38064	**2.15**	429	82075	**5.23**	105	10867	**9.66**	
UK England										*3*
UK Northern Ireland				249	46720	**5.33**				*3*
UK Scotland				912	137263	**6.64**				*3*
UK Wales				688	84452	**8.15**				*3*
European total	**450**	**228,991**	**1.97**	**36,364**	**7,873,848**	**4.62**	**4,453**	**565,570**	**7.87**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years
4) Information on cancer detection is also available for a larger set of subsequent tests (944739)
5) In the larger set DR of invasive cancer is 3.3

Tables 4.6.7. Breast cancer screening programmes in the EU: Other performance indicators

PPV of further assessment to detect CIS & invasive cancer (%)

Subsequent screening

Numerator (N) = CIS + Invasive breast cancers detected
Denominator (D) = Further assessment performed

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels										
Belgium Flanders				877	3277	**26.8%**				
Belgium Wallonia				54	501	**10.8%**				
Cyprus Nicosia				20	381	**5.2%**				
Czech Republic	176	8484	**2.1%**	1762	24760	**7.1%**	409	2198	**18.6%**	
Denmark				1451	4455	**32.6%**				
Estonia										
Finland				1443	5716	**25.2%**				
France				10788	136121	**7.9%**	2777	21251	**13.1%**	
Germany										
Hungary										*2*
Ireland				646	3171	**20.4%**				*1*
Italy	253	5025	**5.0%**	5128	56752	**9.0%**	699	3397	**20.6%**	
Lithuania										
Luxembourg				88	665	**13.2%**				
Malta										
Netherlands				4622	15657	**29.5%**	1118	2848	**39.3%**	
Poland										
Portugal Alentejo	1	39	**2.6%**	39	252	**15.5%**				
Portugal Azores	1	43	**2.3%**	22	162	**13.6%**	4	21	**19.0%**	
Portugal Centre	13	415	**3.1%**	195	1622	**12.0%**				
Portugal Lisboa	10	55	**18.2%**	105	297	**35.4%**				
Portugal Norte	13	367	**3.5%**	153	1474	**10.4%**				
Slovenia				91	402	**22.6%**				
Spain				1482	11027	**13.4%**				*4, 5*
Sweden Stockholm Gotland	100	1124	**8.9%**	503	1922	**26.2%**	119	304	**39.1%**	
UK England										*3*
UK Northern Ireland				298	1212	**24.6%**				*3*
UK Scotland				1067	5032	**21.2%**				*3*
UK Wales				853	3273	**26.1%**				*3*
European total	**567**	**15,552**	**3.6%**	**31,687**	**278,131**	**11.4%**	**5,126**	**30,019**	**17.1%**	

Notes

1) target age 50-64 years
2) target age 45-64 years
3) target age 50-70 years
4) Information on cancer detection is also available for a larger set of subsequent tests (944739)
5) In the larger set PPV to detect CIS & invasive cancer is 11.9%

Tables 4.6.8. Breast cancer screening programmes in the EU: Other performance indicators

% of total carcinomas which are CIS

Subsequent screening

Numerator (N) = CIS detected

Denominator (D) = CIS + Invasive breast cancers detected

	45-49 years			50-69 years			70-74 years			Notes
	N	D	%	N	D	%	N	D	%	
Austria										
Belgium Brussels				4	23	**17.4%**				
Belgium Flanders				159	877	**18.1%**				
Belgium Wallonia				10	54	**18.5%**				
Cyprus Nicosia				5	20	**25.0%**				
Czech Republic	31	176	**17.6%**	209	1762	**11.9%**	35	409	**8.6%**	
Denmark				112	1451	**7.7%**				
Estonia										*1*
Finland				168	1443	**11.6%**				
France				1670	10788	**15.5%**	331	2777	**11.9%**	
Germany				2283	11995	**19.0%**				
Hungary										*2*
Ireland				130	646	**20.1%**				*1*
Italy	63	253	**24.9%**	841	5128	**16.4%**	87	699	**12.4%**	
Lithuania										
Luxembourg				14	88	**15.9%**				
Malta										
Netherlands				1046	4622	**22.6%**	206	1118	**18.4%**	
Poland										
Portugal Alentejo				5	39	**12.8%**				
Portugal Azores				2	22	**9.1%**				
Portugal Centre										
Portugal Lisboa	2	10	**20.0%**	8	105	**7.6%**				
Portugal Norte	3	13	**23.1%**	20	153	**13.1%**				
Slovenia				21	91	**23.1%**				
Spain				191	1482	**12.9%**				*4, 5*
Sweden Stockholm Gotland	18	100	**18.0%**	74	503	**14.7%**	14	119	**11.8%**	
UK England										*3*
UK Northern Ireland				49	298	**16.4%**				*3*
UK Scotland				155	1067	**14.5%**				*3*
UK Wales				165	853	**19.3%**				*3*
European total	**117**	**552**	**21.2%**	**7,341**	**43,510**	**16.9%**	**673**	**5,122**	**13.1%**	

Notes

1) target age 50-64 years

2) target age 45-64 years

3) target age 50-70 years

4) Information on cancer detection is also available for a larger set of subsequent tests (944739)

5) In the larger set proportion of CIS is 13.7%

Tables 4.6.9. Breast cancer screening programmes in the EU: Other performance indicators

Benign surgical biopsy rate (/1,000)

Subsequent screening

Numerator (N) = Benign lesions or no lesion

Denominator (D) = Individuals screened in the year

	45-49 years			50-69 years			70-74 years			Notes
	N	D	‰	N	D	‰	N	D	‰	
Austria										
Belgium Brussels										
Belgium Flanders				23	166635	**0.14**				
Belgium Wallonia				25	9701	**2.58**				
Cyprus Nicosia										
Czech Republic	29	64788	**0.45**	90	366328	**0.25**	7	48242	**0.15**	
Denmark				103	216692	**0.48**				
Estonia										
Finland				249	249609	**1.00**				
France				1881	1699073	**1.11**	254	303021	**0.84**	
Germany										
Hungary										*2*
Ireland				123	114447	**1.07**				*1*
Italy	77	103289	**0.75**	518	1209349	**0.43**	32	79185	**0.40**	
Lithuania										
Luxembourg				8	14363	**0.56**				
Malta										
Netherlands										
Poland										
Portugal Alentejo	1	2315	**0.43**	1	19156	**0.05**				
Portugal Azores	1	1214	**0.82**	11	6365	**1.73**	2	826	**2.42**	
Portugal Centre	17	10495	**1.62**	66	78027	**0.85**				
Portugal Lisboa	2	2822	**0.71**	9	22509	**0.40**				
Portugal Norte	17	6004	**2.83**	57	48751	**1.17**				
Slovenia				3	16406	**0.18**				
Spain				140	347684	**0.40**				
Sweden Stockholm Gotland	40	38064	**1.05**	41	82075	**0.50**	10	10867	**0.92**	
UK England										*3*
UK Northern Ireland				16	46720	**0.34**				*3*
UK Scotland				44	137263	**0.32**				*3*
UK Wales				53	84452	**0.63**				*3*
European total	**184**	**228,991**	**0.80**	**3,461**	**4,935,605**	**0.70**	**305**	**442,141**	**0.69**	

Notes

1) target age 50-64 years

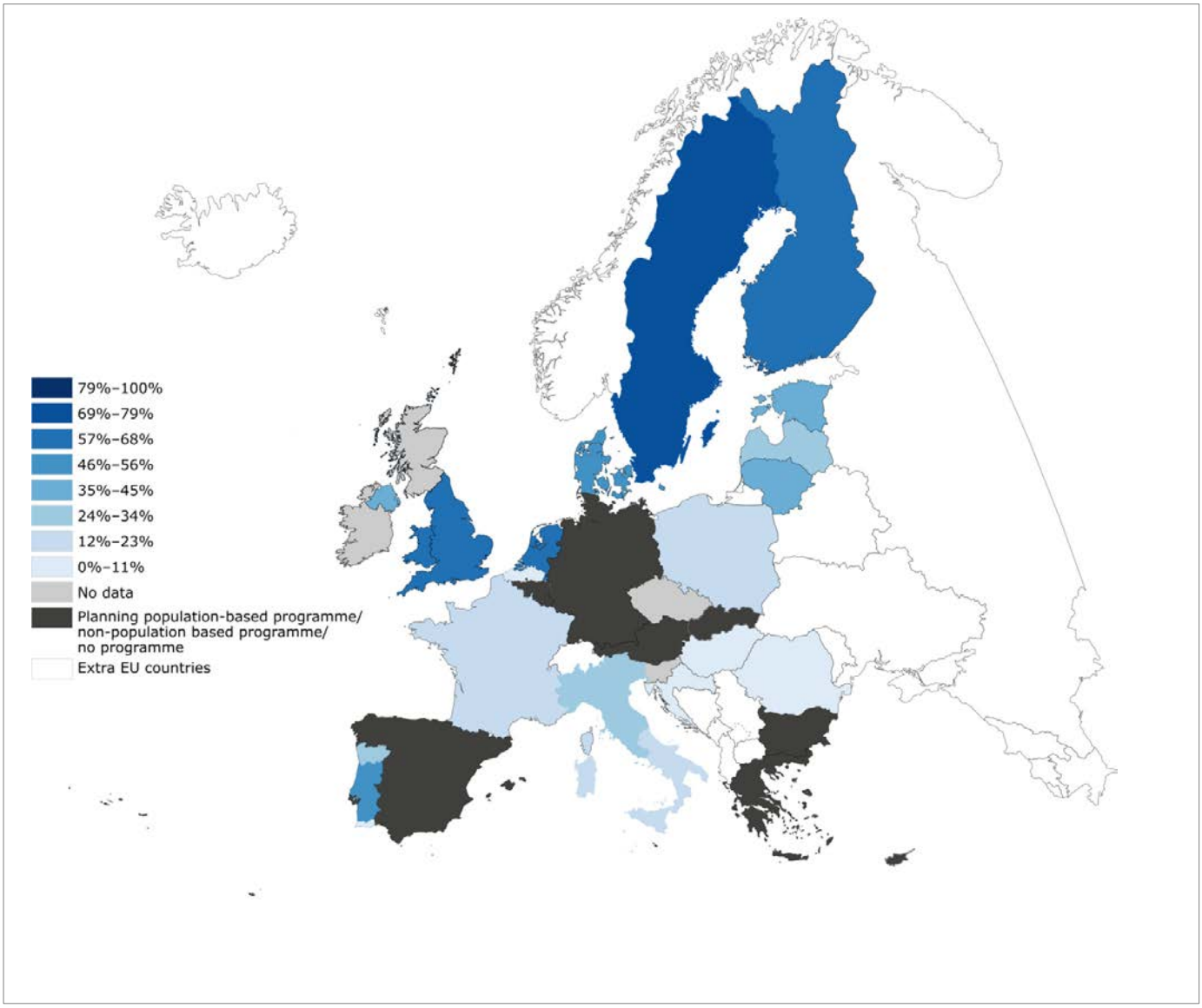
2) target age 45-64 years

3) target age 50-70 years

8. Figures and tables

8.5. Cervical cancer screening programmes in the European Union: performance indicators

Figure 4.2. Cervical cancer screening programmes in the EU: examination coverage by programme specific age-range (table 4.9, all ages)*



*The estimates do not take into account opportunistic screening and only include women invited and screened

Table 4.7. Cervical cancer screening programmes in the EU

Key screening policy features in the responding member states during the index year

Member state or region [2]	Women invited [1]	Age range (years)	Interval (years)	Index year
Belgium	No opportunistic	25-64	3	2014
Belgium Flemish region	No opportunistic	25-64	3	2014
Croatia	No opportunistic	25-64	3	2013
Czech Republic	No opportunistic	25-70	3	2013
Denmark	No opportunistic	23-65	3 (23-59), 5 (60-65)	2013
Estonia	All invited	30-59	5	2014
Finland	All invited	30-64	5	2012
France	No opportunistic	25-64	3	2010/2012
France 13 depts.	No opportunistic	25-64	3	2010/2012
Hungary	All invited	25-65	3	2013
Ireland	Substantially all invited	25-60	3 (25-44), 5 (45-60)	2012/13
Italy	Substantially all invited	25-64	3	2013
Latvia	No opportunistic	25-69	3	2014
Lithuania	All invited	25-59	3	2014
Netherlands	All invited	30-64	5	2009
Poland	All invited	25-59	3	2013
Portugal	All invited	25-64	3	2013
Portugal Azores	All invited	25-64	3	2013
Romania	All invited	25-64	5	2012/5
Slovenia	No opportunistic	20-64	3	2013
Sweden	No opportunistic	23-60	3 (23-49), 5 (50-60)	2013
UK England	All invited	25-64	3 (25-49), 5 (50-64)	2013/14
UK Northern Ireland	No opportunistic	25-64	3 (25-49), 5 (50-64)	2013/14
UK Scotland	All invited	20-69	3	2013/14
UK Wales	No opportunistic	25-64	3	2013

Notes

[1]Women invited: 'No opportunistic' means that women who had a recent Pap-test are not invited; In Czech Republic the invitations are only sent to the women between 25-70 years though the age range in 15-79 years; 'All invited' means that all women in the eligible age range are intended to be invited in the programme irrespective of having had opportunistic testing; 'Substantially all invited' means that a small proportion of women (<10%) plausibly attended without invitation.

[2]Germany has not been able to provide any detailled data as it is in an interim period transferring the current opportunistic cervical cancer screening programme into an organised cervical cancer screening programme.

Table 4.8. Cervical cancer screening programmes in the EU

Invitation coverage (on annual population) (%)

Numerator (N) = Individuals personally invited in the year

Denominator (D) = EUROSTAT population obtained from the age-specific female population living in the area divided by the screening interval for that age.

For example:

A) Women 25-64 years screened every 3 years: denominator is female $Pop_{25\text{-}64} \div 3$

B) Women 25-49 years screened every 3 years and 50-64 screened every 5 years: denominator is $Pop_{25\text{-}49} \div 3 + Pop_{50\text{-}64} \div 5$

	30-59 years			All ages			Women invited	Notes
	N	D	%	N	D	%		
Belgium	257,259	760,521	**33.8%**	365,843	988,423	**37.0%**	No opportunistic	
Belgium Flemish region	257,259	436,976	**58.9%**	365,843	564,373	**64.8%**	No opportunistic	
Croatia				414,018	393,945	**105.1%**	No opportunistic	*1*
Denmark	249,531	372,010	**67.1%**	361,284	490,338	**73.7%**	No opportunistic	
Estonia	42,442	55,037	**77.1%**	42,442	55,037	**77.1%**	All invited	
Finland	205,531	210,016	**97.9%**	244,587	249,690	**98.0%**	All invited	
France	319,635	4,390,330	**7.3%**	439,887	5,764,519	**7.6%**	No opportunistic	
France 13 depts.	319,635	570,743	**56.0%**	439,887	749,387	**58.7%**	No opportunistic	*2*
Hungary	110,100	726,414	**15.2%**	146,570	970,094	**15.1%**	All invited	
Italy	2,840,670	4,364,059	**65.1%**	3,693,399	5,532,843	**66.8%**	Substantially all invited	*3*
Italy North	1,288,734	2,003,827	**64.3%**	1,645,064	2,522,575	**65.2%**		
Italy Centre	704,228	869,133	**81.0%**	907,714	1,095,414	**82.9%**		
Italy South	847,708	1,491,099	**56.9%**	1,140,621	1,914,854	**59.6%**		
Latvia	134,375	144,979	**92.7%**	199,747	213,245	**93.7%**	No opportunistic	
Lithuania	161,170	213,452	**75.5%**	191,912	245,196	**78.3%**	All invited	
Netherlands	670,275	693,155	**96.7%**	760,228	798,140	**95.2%**	All invited	
Poland				3,220,572	3,296,358	**97.7%**	All invited	*4*
Portugal				185,335	996,592	**18.6%**	All invited	*5*
Portugal Norte				19,186	56,318	**34.1%**	All invited	
Portugal Centro				133,359	133,359	**100.0%**	All invited	
Portugal Alentejo				27,192	47,899	**56.8%**	All invited	
Portugal Algarve				5,598	44,423	**12.6%**	All invited	
Romania				733,010	1,127,544	**65.0%**	All invited	*4*
Sweden	422,807	529,185	**79.9%**	550,428	682,302	**80.7%**	No opportunistic	*6*
United Kingdom	4,666,172	4,571,022	102.1%	6,306,821	6,259,674	100.8%		
UK England	3,299,317	3,151,178	104.7%	4,244,755	4,067,897	104.3%	All invited	
UK Northern Ireland	100,588	108,180	**93.0%**	126,724	138,732	**91.3%**	No opportunistic	
UK Scotland	1,059,584	1,112,889	**95.2%**	1,661,252	1,790,370	**92.8%**	All invited	*7*
UK Wales	206,683	198,775	**104.0%**	274,090	262,675	**104.3%**	No opportunistic	
Europe (countries)	**10,079,967**	**17,030,180**	**59.2%**	**17,856,083**	**28,063,940**	**63.6%**		***8, 9***
Europe (regions)	**10,079,967**	**12,887,048**	**78.2%**	**17,856,083**	**21,910,165**	**81.5%**		***9, 10***

Notes

No opportunistic' means that women who had a recent Pap-test are not invited.

1) Age distribution not reported. >100% invited despite opportunistic excluded. Reason not clear. Limitations in computer systems in first years.

2) Denominator computed as EUROSTAT population for France x 0.13.

3) Only a small number opportunistic not invited in some Region.

4) Age distribution not reported.

5) Azores excluded. Women invited but data not available centrally.

6) Numerators based on women invited in the round.

7) Numerator could include women older than the upper target age.

8) If programme covers only some region the entire country is considered.

9) The "All ages" coverage is 48.6% for Europe (countries) and 70.5% for Europe (regions) when considering only areas providing data by ages.

10) If programme covers only some regions, just these areas are considered.

Table 4.9. Cervical cancer screening programmes in the EU

Examination coverage:

Proportion (%) of the target population screened in the index year after invitation

Numerator (N) = Individuals screened of invited in the year
Denominator (D) = EUROSTAT population obtained from the age-specific female population living in the area divided by the screening interval for that age.
For example:
A) Women 25-64 years screened every 3 years: denominator is female $Pop_{25\text{-}64} \div 3$
B) Women 25-49 years screened every 3 years and 50-64 screened every 5 years: denominator = $Pop_{25\text{-}49} \div 3 + Pop_{50\text{-}64} \div 5$

	30-59 years			All ages			Notes
	N	D	%	N	D	%	
Belgium	29,752	760,521	**3.9%**	41,805	988,423	**4.2%**	
Belgium Flemish region	29,752	436,976	**6.8%**	41,805	564,373	**7.4%**	
Croatia				42,694	393,945	**10.8%**	
Denmark	168,973	372,010	**45.4%**	232,674	490,338	**47.5%**	
Estonia	24,423	55,037	**44.4%**	24,423	55,037	**44.4%**	
Finland	135,213	210,016	**64.4%**	164,878	249,690	**66.0%**	
France	69,844	4,390,330	**1.6%**	92,921	5,764,519	**1.6%**	
France 13 depts.	69,844	570,743	**12.2%**	92,921	749,387	**12.4%**	*1*
Hungary	33,154	726,414	**4.6%**	43,442	970,094	**4.5%**	
Italy	1,187,186	4,364,059	**27.2%**	1,533,615	5,532,843	**27.7%**	
Italy North	664,354	2,003,827	**33.2%**	836,571	2,522,575	**33.2%**	
Italy Centre	281,720	869,133	**32.4%**	362,365	1,095,414	**33.1%**	
Italy South	241,112	1,491,099	**16.2%**	334,679	1,914,854	**17.5%**	
Latvia	49,328	144,979	**34.0%**	70,163	213,245	**32.9%**	
Lithuania	77,666	213,452	**36.4%**	91,905	245,196	**37.5%**	
Netherlands	442,080	693,155	**63.8%**	504,338	798,140	**63.2%**	
Poland				586,291	3,296,358	**17.8%**	*2*
Portugal				116,408	996,592	**11.7%**	*3, 4*
Portugal Norte				16,259	56,318	**28.9%**	*3*
Portugal Centro				73,714	133,359	**55.3%**	*3*
Portugal Alentejo				23,329	47,899	**48.7%**	*3*
Portugal Algarve				3,106	44,423	**7.0%**	*3*
Romania				103,886	1,127,544	**9.2%**	*2*
Sweden	373,422	529,185	**70.6%**	508,670	729,564	**69.7%**	*5*
UK England	1,970,233	3,151,178	**62.5%**	2,491,095	4,067,897	**61.2%**	
UK Northern Ireland	48,826	108,180	**45.1%**	61,102	138,732	**44.0%**	
UK Wales	127,538	198,775	**64.2%**	166,740	262,675	**63.5%**	
Europe (countries)	**4,737,638**	**15,917,291**	**29.8%**	**6,877,050**	**26,320,832**	**26.1%**	***6***
Europe (regions)	**4,737,638**	**11,774,159**	**40.2%**	**6,877,050**	**20,167,057**	**34.1%**	***7***

Notes

Opportunistic tests always excluded. Women invited during the index year and screened during the subsequent year (within April 30 as general rule, within June 30 in Sweden and Denmark) included.

1) Denominator computed as EUROSTAT population for France x 0.13.

2) Age distribution not reported.

3) All invited.

4) Azores excluded. Women invited but data not available centrally.

5) Denominator for Total is EUROSTAT population in the age range 23-64 yrs.

6) If programme covers only some region the entire country is considered.

7) If programme covers only some regions, just these areas are considered.

Table 4.10. Cervical cancer screening programmes in the EU

Examination coverage:

Proportion (%) of the target population tested in the index year

Numerator (N) = Individuals screened in the year

Denominator (D) = EUROSTAT population obtained from the age-specific female population living in the area divided by the screening interval for that age.

For example:

A) Women 25-64 years screened every 3 years: denominator is female $Pop_{25-64} \div 3$

B) Women 25-49 years screened every 3 years and 50-64 screened every 5 years: denominator = Pop25-49÷3 + Pop50-64÷5

	30-59 years			All ages			Notes
	N	D	%	N	D	%	
Belgium Flemish region	182,685	436,976	**41.8%**	232,880	564,373	**41.3%**	*1*
Czech Republic	1,239,162	2,246,590	**55.2%**	2,127,985	4,317,116	**49.3%**	*1*
Denmark	298,828	372,010	**80.3%**	402,561	490,338	**82.1%**	*1*
France 13 depts.	375,820	570,743	**65.8%**	485,929	749,387	**64.8%**	*1, 2*
Hungary	380,546	726,414	**52.4%**	491,201	970,094	**50.6%**	*1*
Ireland	260,576	325,764	**80.0%**	313,142	390,498	**80.2%**	*3*
Italy	1,295,665	4,364,059	**29.7%**	1,692,125	5,532,843	**30.6%**	*3*
Italy North	713,364	2,003,827	**35.6%**	899,610	2,522,575	**35.7%**	
Italy Centre	319,270	869,133	**36.7%**	412,110	1,095,414	**37.6%**	
Italy South	263,031	1,491,099	**17.6%**	380,405	1,914,854	**19.9%**	
Latvia	38,872	144,979	**26.8%**	55,487	213,245	**26.0%**	*4*
Lithuania	100,171	213,452	**46.9%**	118,399	245,196	**48.3%**	*1*
Poland				694,719	3,296,358	**21.1%**	*3*
Portugal Azores	4,253	17,801	**23.9%**	5,440	22,757	**23.9%**	*5*
Romania				103,886	1,127,544	**9.2%**	*6*
Slovenia	113,736	148,583	**76.5%**	164,364	212,239	**77.4%**	*1*
Sweden	458,556	529,185	**86.7%**	629,728	729,564	**86.3%**	*1, 7*
UK	3,024,818	4,571,022	**66.2%**	3,912,587	6,259,299	62.5%	
UK England	2,519,216	3,151,178	79.9%	3,225,180	4,067,897	79.3%	
UK Northern Ireland	93,720	108,180	**86.6%**	118,893	138,732	**85.7%**	*1*
UK Scotland	269,278	1,112,889	**24.2%**	382,084	1,790,370	**21.3%**	*1, 8*
UK Wales	142,604	198,775	**71.7%**	186,430	262,300	**71.1%**	
Europe	**7,773,688**	**14,667,578**	**53.0%**	**11,430,433**	**25,120,851**	**45.5%**	***9***

Notes

1) Opportunistic activity (women screened without invitation) included.

2) Denominator computed as EUROSTAT population for France x 0.13.

3) A small proportion of women (<10%) plausibly attended without invitation.

4) Opportunistic activity not included. < "coverage of invited in year" plausibly because shorter period (only index year) considered here.

5) Data refer only to organized screening activities.

6) Opportunistic activity not included. Age distribution not reported.

7) Denominator for Total is EUROSTAT population in the age range 23-64 yrs.

8) Numerator could include women older than the upper target age.

9) If programme covers only some regions, just these areas are considered.

Table 4.11. Cervical cancer screening programmes in the EU

Participation rate (%)

Numerator (N) = Individuals screened of invited in the year
Denominator (D) = Individuals personally invited in the year

	30-59 years			All ages			Notes
	N	D	%	N	D	%	
Belgium Flemish region	29,752	257,259	**11.6%**	41,805	365,843	**11.4%**	
Croatia				42,694	414,018	**10.3%**	
Denmark	168,973	249,531	**67.7%**	232,674	361,284	**64.4%**	
Estonia	24,423	42,442	**57.5%**	24,423	42,442	**57.5%**	
Finland	135,213	205,531	**65.8%**	164,878	244,587	**67.4%**	
France 13 depts.	69,844	319,635	**21.9%**	92,921	439,887	**21.1%**	
Hungary	33,154	110,100	**30.1%**	43,442	146,570	**29.6%**	
Italy	1,187,186	2,840,670	**41.8%**	1,533,615	3,693,399	**41.5%**	
Italy North	664,354	1,288,734	**51.6%**	836,571	1,645,064	**50.9%**	
Italy Centre	281,720	704,228	**40.0%**	362,365	907,714	**39.9%**	
Italy South	241,112	847,708	**28.4%**	334,679	1,140,621	**29.3%**	
Latvia	49,328	134,375	**36.7%**	70,163	199,747	**35.1%**	
Lithuania	77,666	161,170	**48.2%**	91,905	191,912	**47.9%**	
Netherlands	442,080	670,275	**66.0%**	504,338	760,228	**66.3%**	
Poland				586,291	3,220,572	**18.2%**	
Romania				103,886	733,010	**14.2%**	
Sweden	373,422	694,844	**53.7%**	508,670	964,664	**52.7%**	
UK England	1,970,233	3,299,317	**59.7%**	2,491,095	4,244,755	**58.7%**	
UK Northern Ireland	48,826	100,588	**48.5%**	61,102	126,724	**48.2%**	
Europe	**4,610,100**	**9,085,737**	**50.7%**	**6,593,902**	**16,149,642**	**40.8%**	***1***

Notes

1) If programme covers only some regions, just these areas are considered.

Table 4.12. Cervical cancer screening programmes in the EU

Completeness of information on screening results

All ages	Completeness of information on referral to colposcopy on screening tests			Completeness of information on presence of HGCIN on referred to colposcopy			Notes
Belgium Flemish region		232,880	**0%**				
Croatia		42,694	**0%**	2,616			
Czech Republic	2,127,985	2,127,985	**100%**	8,001	26,501	**30%**	*1*
Denmark	402,561	402,561	**100%**	13,883	13,856	**100%**	
Estonia		24,423	**0%**				
Finland	164,878	164,878	**100%**	1,467	1,536	**96%**	*2*
France 13 depts.		485,929	**0%**				
Ireland		330,492	**0%**				
Italy	1,692,125	1,692,125	**100%**	30,201	36,699	**82%**	*3*
Latvia		55,487	**0%**				
Lithuania		118,399	**0%**				
Netherlands	504,338	504,338	**100%**	6,424	8,443	**76%**	
Poland	694,719	694,719	**100%**	3,123	8,284	**38%**	
Portugal Azores	5,440	5,440	**100%**	48	124	**39%**	
Romania		103,886	**0%**				
Slovenia	164,364	164,364	**100%**	1,100	1,363	**81%**	
Sweden	447,977	447,977	**100%**	15,038	22,780	**66%**	
UK England	3,225,180	3,225,180	**100%**				*4*
UK Northern Ireland		118,893	**0%**				
UK Scotland		382,084	**0%**				
UK Wales	186,430	186,430	**100%**	5,773	5,942	**97%**	

Notes

1) In Czech Republic only histology examinations are collected.

2) In Finland first level includes women who were tested because of intensified screening.

3) In Italy just women screened by cytology incuded in tables on process indicators.

4) Data on referral not reported by age.

Hungary excluded because colposcopy substantially part of 1st level visit.

HGCIN = High Grade Cervical Intraepithelial Neoplasia.

Table 4.13.1. Cervical cancer screening programmes in the EU: Other performance indicators

Colposcopy referral (%)

Numerator (N) = Women referred to colposcopy

Denominator (D) = Women with information available on colposcopy referral

	30-59 years			All ages			Notes
	N	D	%	N	D	%	
Czech Republic	15,293	1,239,162	**1.2%**	26,501	2,127,985	**1.2%**	*1*
Denmark	9,302	304,796	**3.1%**	13,856	402,561	**3.4%**	
Finland	1,376	143,865	**1.0%**	1,536	174,424	**0.9%**	
Hungary				40,409	44,442	**90.9%**	*2*
Italy	27,634	1,081,153	**2.6%**	36,699	1,401,951	**2.6%**	
Netherlands				8,443	504,338	**1.7%**	
Poland				8,284	694,719	**1.2%**	
Portugal Azores	90	4,253	**2.1%**	124	5,440	**2.3%**	
Slovenia	998	113,736	**0.9%**	1,363	164,364	**0.8%**	
Sweden	12,387	329,022	**3.8%**	22,780	447,977	**5.1%**	*3*
UK England				199,322	3,225,180	**6.2%**	*4*
UK Wales	3,863	142,604	**2.7%**	5,942	186,430	**3.2%**	*5*
Europe	**70,943**	**3,358,591**	**2.1%**	**324,850**	**9,335,369**	**3.5%**	***6***

Notes

1) Includes referrals for clinical reasons and HPV.

2) Colposcopy substantially part of screening primary visit.

3) Referral inferred from cytological classification.

4) Women referred not reported by age. Assuming all referred are in the target age.

5) Women referred because of symptoms excluded.

6) If programme covers only some regions, just these areas are considered. Hungary excluded.

Table 4.13.2. Cervical cancer screening programmes in the EU: Other performance indicators

Colposcopy participation (%)

Numerator (N) = Colposcopy performed (at least one)
Denominator (D) = Information available on colposcopy performance

	30-59 years			All ages			Notes
	N	D	%	N	D	%	
Czech Republic							
Denmark							
Finland	1,360	1,376	**98.8%**	1,517	1,536	**98.8%**	
Hungary				40,409	40,409	**100.0%**	*1*
Italy				32,148	36,669	**87.7%**	*2*
Netherlands				6,424	8,443	**76.1%**	
Poland				3,287	8,430	**39.0%**	*3*
Portugal Azores	36	90	**40.0%**	49	124	**39.5%**	*4*
Slovenia	811	998	**81.3%**	1,100	1,363	**80.7%**	
Sweden	7,373	12,387	**59.5%**	15,038	22,780	**66.0%**	*5*
UK Wales	3,775	3,863	**97.7%**	5,773	5,942	**97.2%**	
Europe	**13,355**	**18,714**	**71.4%**	**65,336**	**85,287**	**76.6%**	***6***

Notes

1) Colposcopy substantially part of screening primary visit.

2) Some colposcopies done outside organised screning, plausibly relevant only in southern regions.

3) Many colposcopies done outside organised programme.

4) Some colposcopies done outside the programme.The main reason is large delay in reporting.

5) Colposcopy participation estimated based on the presence of biopsy. All women referred used as denominator.

6) If programme covers only some regions, just these areas are considered. Hungary excluded.

Table 4.13.3. Cervical cancer screening programmes in the EU: Other performance indicators

Detection rate of CIN2+ (/1,000)

Numerator (N) = All histological diagnoses CIN2+
Denominator (D) = Individuals screened in the year

	30-59 years			All ages			Notes
	N	D	‰	N	D	‰	
Czech Republic	2,515	1,239,162	**2.0**	4,282	2,127,985	**2.0**	*1*
Denmark	3,079	304,796	**10.1**	5,136	402,561	**12.8**	*2*
Finland	424	143,913	**2.9**	445	174,482	**2.6**	*3*
Hungary							
Italy	4,422	1,052,764	**4.2**	4,836	1,399,629	**3.5**	*4*
Netherlands				3,822	504,338	**7.6**	
Poland				723	694,719	**1.0**	*5*
Portugal Azores	17	4,253	**4.0**	20	5,440	**3.7**	*6*
Slovenia	514	113,736	**4.5**	719	164,364	**4.4**	
Sweden	2,222	329,022	**6.8**	4,277	447,977	**9.5**	
UK Wales	1,337	142,604	**9.4**	2,294	186,430	**12.3**	*7*
Europe	**14,530**	**3,330,250**	**4.4**	**26,554**	**6,107,925**	**4.3**	***8***

Notes

1) Data providers suggest histology registration is largely incomplete leading to large underestimation.
2) Historically very high DR. High HPV prevalence.
3) Competitive detection by opportunistic screening relevant.
4) Some colposcopies done outside organised screning, plausibly relevant only in southern regions.
5) Many colposcopies done outside organised programme.
6) Some colposcopies done outside the programme.The main reason is large delay in reporting.
7) Recent start.
8) If programme covers only some regions, just these areas are considered.

Table 4.13.4. Cervical cancer screening programmes in the EU: Other performance indicators

Detection rates of CIN3+ (/1,000)

Numerator (N) = All histological diagnoses CIN3+
Denominator (D) = Individuals screened in the year

	30-59 years			All ages			Notes
	N	D	‰	N	D	‰	
Czech Republic	1,790	1,239,162	**1.4**	2,994	2,127,985	**1.4**	*1*
Denmark	2,025	304,796	**6.6**	3,390	402,561	**8.4**	*2*
Finland	229	143,913	**1.6**	243	174,482	**1.4**	*3*
Hungary							
Italy	2,317	1,052,764	**2.2**	2,562	1,399,629	**1.8**	*4*
Netherlands				2,342	504,338	**4.6**	
Poland				422	694,719	**0.6**	*5*
Portugal Azores	17	4,253	**4.0**	20	5,440	**3.7**	*6*
Slovenia	413	113,736	**3.6**	574	164,364	**3.5**	
Sweden	1,408	329,022	**4.3**	2,482	447,977	**5.5**	
UK Wales	997	142,604	**7.0**	1,701	186,430	**9.1**	*7*
Europe	**9,196**	**3,330,250**	**2.8**	**16,730**	**6,107,925**	**2.7**	***8***

Notes

1) Data providers suggest histology registration is largely incomplete leading to large underestimation.
2) Historically very high DR. High HPV prevalence.
3) Competitive detection by opportunistic screening relevant.
4) Some colposcopies done outside organised screning, plausibly relevant only in southern regions.
5) Many colposcopies done outside organised programme.
6) Some colposcopies done outside the programme.The main reason is large delay in reporting.
7) Recent start.
8) If programme covers only some regions, just these areas are considered.

Table 4.13.5. Cervical cancer screening programmes in the EU: Other performance indicators

Positive Predictive Value for CIN2+ (%)

Numerator (N) = All histological diagnoses CIN2+
Denominator (D) = Colposcopy performed

	30-59 years			All ages			Notes
	N	D	%	N	D	%	
Czech Republic							
Denmark							
Finland	424	1,360	**31.2%**	445	1,517	**29.3%**	
Hungary							
Italy				4,836	30,201	**16.0%**	
Netherlands				3,822	6,424	**59.5%**	
Poland				723	3,123	**23.2%**	
Portugal Azores	17	36	**47.2%**	20	49	**40.8%**	
Slovenia	514	811	**63.4%**	719	1,100	**65.4%**	
Sweden	2,222	7,373	**30.1%**	4,277	15,038	**28.4%**	
UK Wales	1,337	3,775	**35.4%**	2,294	5,773	**39.7%**	
Europe	**4,514**	**13,355**	**33.8%**	**17,136**	**63,225**	**27.1%**	***1***

Notes

1) If programme covers only some regions, just these areas are considered.

Table 4.13.6. Cervical cancer screening programmes in the EU: Other performance indicators

Positive Predictive Value for CIN3+ (%)

Numerator (N) = All histological diagnoses CIN3+
Denominator (D) = Colposcopy performed

	30-59 years			All ages			Notes
	N	D	%	N	D	%	
Czech Republic							
Denmark							
Finland	229	1,360	**16.8%**	243	1,517	**16.0%**	
Hungary							
Italy				2,562	30,201	**8.5%**	
Netherlands				2,342	6,424	**36.5%**	
Poland				422	3,123	**13.5%**	
Portugal Azores	17	36	**47.2%**	20	49	**40.8%**	
Slovenia	413	811	**50.9%**	574	1,100	**52.2%**	
Sweden	1,408	7,373	**19.1%**	2,482	15,038	**16.5%**	
UK Wales	997	3,775	**26.4%**	1,701	5,773	**29.5%**	
Europe	**3,064**	**13,355**	**22.9%**	**10,346**	**63,225**	**16.4%**	***1***

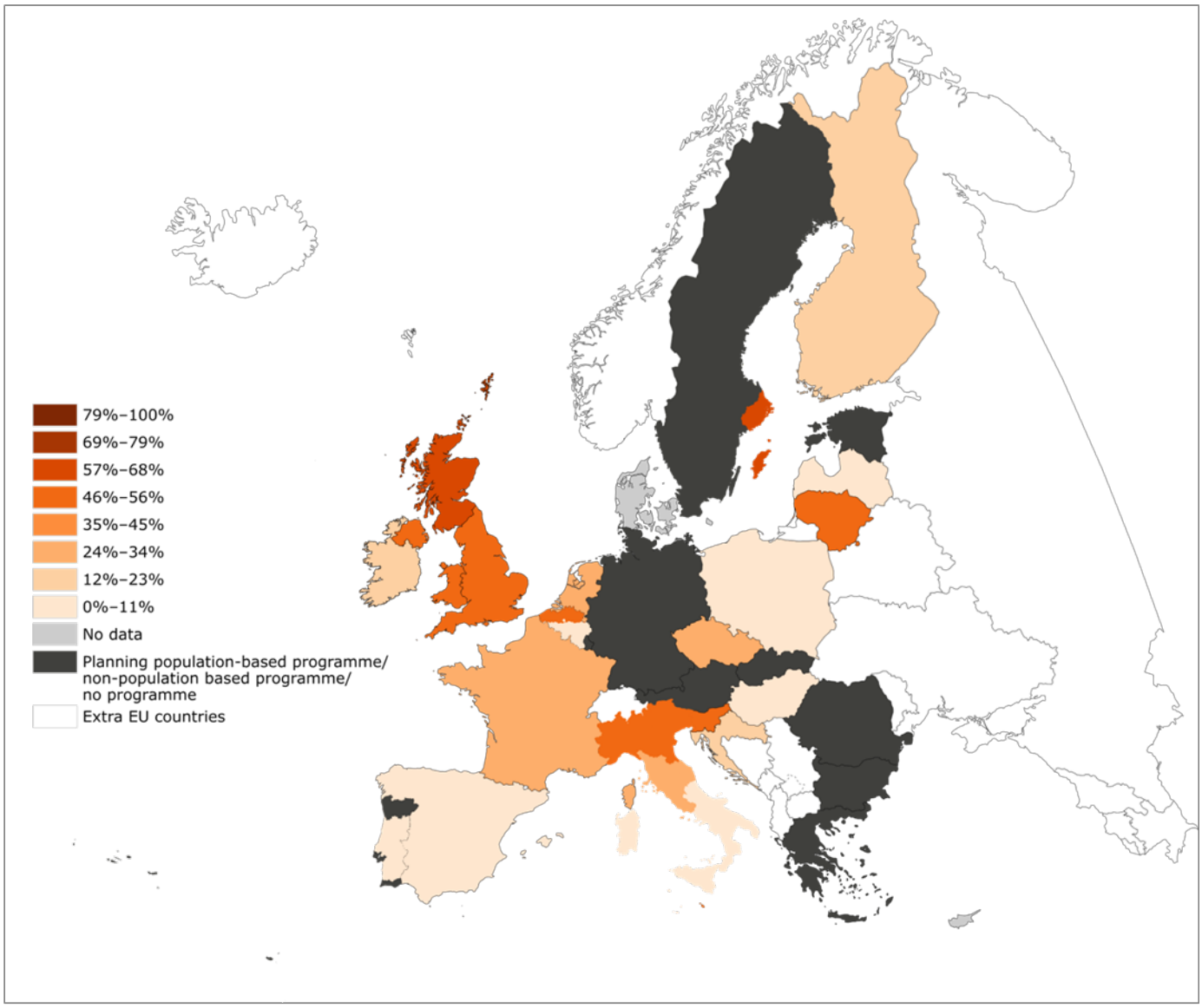
Notes

1) If programme covers only some regions, just these areas are considered.

8. Figures and tables

8.6. Colorectal cancer screening programmes in the European Union: performance indicators

Figure 4.3. Colorectal cancer screening programmes in the EU (women and men, any test): examination coverage by programme specific age-range (table 4.14)*



*The estimates do not take into account opportunistic screening

Table 4.14.1. Colorectal cancer screening programmes in the EU

Invitation coverage and Examination coverage by 50-74 age range and by country specific target populations

Member state (Gender + Screening test)	50 to 74 years old					Programme specific age range						Index year	Notes
	EUROSTAT 2013 annual population	Persons invited	Persons screened	Invitation coverage (on annual population)	Examination coverage (on annual population)	Programme specific age range	EUROSTAT 2013 annual population	Persons invited	Persons screened	Invitation coverage (on annual population)	Examination coverage (on annual population)		
Austria (Men + Women)	1,253,118												
Belgium	1,579,520	1,285,028	359,011	**81.4%**	**22.7%**		1,295,843	1,285,028	359,011	**99.2%**	**27.7%**		
Belgium Flemish region (Women - FIT)	476,604	330,747	164,001	**69.4%**	**34.4%**	56-74	336,486	330,747	164,001	**98.3%**	**48.7%**	**2014**	
Belgium Flemish region (Men - FIT)	469,232	327,140	153,520	**69.7%**	**32.7%**	56-74	325,673	327,140	153,520	**100.5%**	**47.1%**	**2014**	
Belgium Wallonia+Brussels (Women gFOBT)	329,235	317,806	22,056	**96.5%**	**6.7%**	50-74	329,235	317,806	22,056	**96.5%**	**6.7%**	**2014**	
Belgium Wallonia+Brussels (Men gFOBT)	304,449	309,335	19,434	**101.6%**	**6.4%**	50-74	304,449	309,335	19,434	**101.6%**	**6.4%**	**2014**	
Bulgaria (Men + Women)	1,167,517												
Croatia (Men + Women - gFOBT)	661,724	664,934	101,476	**100.5%**	**15.3%**	50-74	661,724	664,934	101,476	**100.5%**	**15.3%**	**2013-2014**	1
Cyprus (Men + Women)	110,775												
Czech Republic	2,015,417		499,616		**24.8%**		2,574,509		540,213		**21.0%**		
Czech Republic (Women - FIT)	883,239		290,561		**32.9%**	50+	1,214,917		315,537	–	**26.0%**	**2013**	2
Czech Republic (Men - FIT)	816,196		204,758		**25.1%**	50+	1,036,228		220,172	–	**21.2%**	**2013**	2
Czech Republic (Women - Colonoscopy)	165,746		2,110		**1.3%**	55+	180,045		2,218	–	**1.2%**	**2013**	2
Czech Republic (Men - Colonoscopy)	150,236		2,187		**1.5%**	55+	143,319		2,286	–	**1.6%**	**2013**	2
Denmark (Men + Women)	831,631												
Estonia (Men + Women)	194,385												
Finland (Women - gFOBT)	437,592	45,315	33,316	**10.4%**	**7.6%**	60-69	190,932	45,315	33,316	**23.7%**	**17.4%**	**2014**	
Finland (Men - gFOBT)	415,049	43,859	25,934	**10.6%**	**6.2%**	60-69	181,422	43,859	25,934	**24.2%**	**14.3%**	**2014**	
France	9,017,226	8,937,390	2,390,203	**99.1%**	**26.5%**		9,017,226	8,937,390	2,390,203	**99.1%**	**26.5%**		3
France, except Calvados (Women - gFOBT)	4,692,984	4,477,644	1,301,186	**95.4%**	**27.7%**	50-74	4,692,984	4,477,644	1,301,186	**95.4%**	**27.7%**	**2012**	
France, except Calvados (Men - gFOBT)	4,226,832	4,373,826	1,065,222	**103.5%**	**25.2%**	50-74	4,226,832	4,373,826	1,065,222	**103.5%**	**25.2%**	**2012**	
France Calvados (Women - FIT)	51,214	43,956	13,565	**85.8%**	**26.5%**	50-74	51,214	43,956	13,565	**85.8%**	**26.5%**	**2012**	
France Calvados (Men -FIT)	46,196	41,964	10,230	**90.8%**	**22.1%**	50-74	46,196	41,964	10,230	**90.8%**	**22.1%**	**2012**	
Germany (Men + Women)	13,095,923												4
Greece (Men + Women)	1,585,417												
Hungary (Women - FIT)	835,062	11,817	4,724	**1.4%**	**0.6%**	50-70	701,442	11,817	4,724	**1.7%**	**0.7%**	**2013**	5
Hungary (Men - FIT)	677,550	10,818	3,594	**1.6%**	**0.5%**	50-70	592,154	10,818	3,594	**1.8%**	**0.6%**	**2013**	5
Ireland (Men + Women FIT)	539,384	58,659	23,482	**10.9%**	**4.4%**	60-69	205,013	58,636	23,482	**28.6%**	**11.5%**	**2013**	
Italy	8,324,661	4,365,244	1,981,082	**52.4%**	**23.8%**		6,933,454	4,365,244	1,981,082	**63.0%**	**28.6%**		
Italy North (Women - FIT)	1,800,222	1,401,733	765,744	**77.9%**	**42.5%**	50-69	1,469,676	1,401,733	765,744	**95.4%**	**52.1%**	**2013**	
Italy North (Men - FIT)	1,670,238	1,320,382	661,918	**79.1%**	**39.6%**	50-69	1,389,771	1,320,382	661,918	**95.0%**	**47.6%**	**2013**	
Italy Centre (Women - FIT)	944,966	469,305	187,370	**49.7%**	**19.8%**	50-69	775,321	469,305	187,370	**60.5%**	**24.2%**	**2013**	
Italy Centre (Men - FIT)	852,133	422,097	150,506	**49.5%**	**17.7%**	50-69	709,537	422,097	150,506	**59.5%**	**21.2%**	**2013**	
Italy South (Women - FIT)	1,562,631	351,001	109,624	**22.5%**	**7.0%**	50-69	1,309,008	351,001	109,624	**26.8%**	**8.4%**	**2013**	
Italy Southn (Men - FIT)	1,433,048	348,467	94,369	**24.3%**	**6.6%**	50-69	1,217,759	348,467	94,369	**28.6%**	**7.7%**	**2013**	
Italy (Women - FS + FIT)	31,771	26,738	5,567	**84.2%**	**17.5%**	58/60	32,020	26,738	5,567	**83.5%**	**17.4%**	**2013**	6/7
Italy (Men - FS + FIT)	29,653	25,521	5,984	**86.1%**	**20.2%**	58/60	30,363	25,521	5,984	**84.1%**	**19.7%**	**2013**	6/7
Latvia (Men + Women - gFOBT)	617,900		68,498		**11.1%**	50-74	617,900		68,498		**11.1%**	**2014**	8
Lithuania (Women - FIT)	253,098		146,087		**57.7%**	50-74	253,098		146,087		**57.7%**	**2014**	
Lithuania (Men - FIT)	187,724		88,170		**47.0%**	50-74	187,724		88,170		**47.0%**	**2014**	
Luxembourg (Men + Women)	69,075												
Malta (Men + Women FIT)	66,242	18,908	6,754	**28.5%**	**10.2%**	60-64	14,874	18,908	6,754	**127.1%**	**45.4%**	**2014**	
Netherlands (Women FIT)	1,259,729	251,457	191,058	**20.0%**	**15.2%**	55-75	982,484	376,543	272,319	**38.3%**	**27.7%**	**2014**	9
Netherlands (Men FIT)	1,245,911	255,176	183,664	**20.5%**	**14.7%**	55-75	962,021	365,371	256,737	**38.0%**	**26.7%**	**2014**	9
Poland (Women Colonoscopy)	237,881	30,052	4,767	**12.6%**	**2.0%**	55-64	289,952	30,052	4,767	**10.4%**	**1.6%**	**2013**	7
Poland (Men Colonoscopy)	206,678	25,484	4,545	**12.3%**	**2.2%**	55-64	259,434	25,484	4,545	**9.8%**	**1.8%**	**2013**	7
Portugal (Men + Women FIT)	1,555,098	24,185	15,178	**1.6%**	**1.0%**	50-70	1,363,864	24,185	15,178	**1.8%**	**1.1%**	**2014**	
Romania	2,879,095												
Slovakia Republic	755,783												
Slovenia (Women FIT)	159,377	125,980	69,526	**79.0%**	**43.6%**	50-69	134,371	125,980	69,526	**93.8%**	**51.7%**	**2011-2012**	1
Slovenia (Men - FIT)	153,615	124,278	56,801	**80.9%**	**37.0%**	50-69	133,686	124,278	56,801	**93.0%**	**42.5%**	**2011-2012**	1
Spain (Women - FIT)	3,234,724	464,919	242,013	**14.4%**	**7.5%**	50-69	2,772,701	464,919	242,013	**16.8%**	**8.7%**	**2013**	
Spain (Men - FIT)	3,047,638	424,670	207,855	**13.9%**	**6.8%**	50-69	2,652,841	424,670	207,855	**16.0%**	**7.8%**	**2013**	
Sweden (Women - gFOBT)	694,094	60,522	39,223	**8.7%**	**5.7%**	60-69	296,625	60,522	39,223	**20.4%**	**13.2%**	**2013**	
Sweden (Men - gFOBT)	689,399	56,522	31,187	**8.2%**	**4.5%**	60-69	293,125	56,522	31,187	**19.3%**	**10.6%**	**2013**	
UK	8,755,026	5,141,521	2,868,767	**58.7%**	**32.8%**		5,117,333	5,141,521	2,868,767	**100.5%**	**56.1%**		
UK England (Women - gFOBT)	3,562,481	1,996,310	1,150,602	**56.0%**	**32.3%**	60-74	1,915,728	1,996,310	1,150,602	**104.2%**	**60.1%**	**2013**	
UK England (Men - gFOBT)	3,716,370	1,932,001	1,020,427	**52.0%**	**27.5%**	60-74	2,037,548	1,932,001	1,020,427	**94.8%**	**50.1%**	**2013**	
UK England (Women - FS)						55-59							
UK England (Men - FS)						55-59							
UK Northern Ireland (Men + Women - gFOBT)	236,447	120,916	66,051	**51.1%**	**27.9%**	60-74	123,305	120,916	66,051	**98.1%**	**53.6%**	**2013**	
UK Scotland (Women - gFOBT)	404,240	438,946	261,227	**108.6%**	**64.6%**	50-74	404,240	438,946	261,227	**108.6%**	**64.6%**	**2013**	
UK Scotland (Men - gFOBT)	378,367	424,131	230,304	**112.1%**	**60.9%**	50-74	378,367	424,131	230,304	**112.1%**	**60.9%**	**2013**	
UK Wales (Women - gFOBT)	233,648	116,842	74,574	**50.0%**	**31.9%**	60-74	132,303	116,842	74,574	**88.3%**	**56.4%**	**2013**	
UK Wales (Men - gFOBT)	223,475	112,375	65,582	**50.3%**	**29.3%**	60-74	125,844	112,375	65,582	**89.3%**	**52.1%**	**2013**	
European total (10)	**68,810,029**	**22,426,738**	**9,646,530**	**32.6%**	**14.0%**								

Coverage is calculated by dividing the annual number of persons invited, or screened, by the annual population in the default age range (50-74), or the programme-specific age range (the screening age range set by the programme policies in respective countries or regions). Annual populations are estimated by dividing the national or regional population in the respective age range by the screening interval in years. For countries not providing data as well as for those in the planning phase a 2-year interval is assumed in the default age range. Unless indicated otherwise in footnotes, population estimates are obtained from EUROSTAT 2013 data (online data code: proj_13rpms).
Coverage by invitation is calculated only for countries or regions with population-based programmes providing data on the number of persons invited in the respective index year. Coverage by examination is calculated only for countries or regions with population-based or non-population-based programmes providing data on the number of persons screened in the respective index year.
Nationwide coverage in programme-specific age ranges is calculated only for countries with programme policy (age range and interval) adopted in all regions. The screening programme type in the index year is the same as in Table 3.3.1, except for: Czech Republic, Denmark, Estonia and Luxembourg, which established population-based programmes after the respective index year.
Country subtotals are included for countries with regional programmes or multiple screening tests; the subtotals are adjusted to avoid double counting due to possible multiple testing.

(1) Croatia and Slovenia: the annual number of persons screened and the number invited are estimated from the respective one-year averages in the two-year period 2011-2012 (Slovenia) and 2013-2014 (Croatia). The performance indicators in tables 4.15, 4.18.1-4.19.9, 4.21.1-4.23.9 were calculated over the entire screening cohort, examined over the indicated 2-year period.
(2) Czech Republic: examination coverage is underestimated in programme-specific age ranges because screened persons aged over 79 years are not reported.
(3) France, population estimates are for year 2012 and were provided by the national public health agency (Santé publique France); total population corresponds to EUROSTAT 2012 data.
(4) Germany did not provide any detailed data as it is in an interim period transferring the current opportunistic colorectal cancer screening programme into an organised colorectal cancer screening programme.
(5) Hungary: pilot programme, persons previously screened opportunistically are excluded from invitation.
(6) Italy, Piedmont: FIT is offered only to persons who decline a preceding invitation to flexible sigmoidoscopy; in 2013 FIT was performed in 3658 women and 2281 men, resulting in 29% and 27% invitation coverage, respectively.
(7) Italy, Piedmont; and Poland: endoscopic screening is offered once in a lifetime; the annual population used to calculate coverage is the population in the respective age range divided by the number of years in the age range.
8) 1-year interval.
9) Invitations and screening tests performed at age 75 excluded from the numerator in the examination coverage 50-74.
10) EU coverage can be estimated only referring to the age range: 50-74.

Table 4.14.2. Colorectal cancer screening programmes in the EU

Invitation coverage and Examination coverage adjusted by the actual target populations in the programmes with partial roll-out

Member state (Gender + Screening test)	Programme specific age range						Index year	Notes
	Programme specific age range	EUROSTAT 2013 annual population	Persons invited	Persons screened	Invitation coverage (on annual population)	Examination coverage (on annual population)		
Finland (Women gFOBT)	60-69	96,860	45,315	33,316	**46.8%**	**34.4%**	**2014**	11
Finland (Men gFOBT)	60-69	91,103	43,859	25,934	**48.1%**	**28.5%**	**2014**	11
Italy (Women FIT)	50-69	3,063,010	2,222,039	1,068,647	**72.5%**	**34.9%**	**2013**	
Italy (Men FIT)	50-69	2,869,262	2,090,946	912,702	**72.9%**	**31.8%**	**2013**	
Netherlands (Women FIT)	55-75	418,644	376,543	272,319	**89.9%**	**65.0%**	**2014**	12
Netherlands (Men FIT)	55-75	398,129	365,371	256,737	**91.8%**	**64.5%**	**2014**	12
Poland (Women Colonoscopy)	55-64	96,651	30,052	4,767	**31.1%**	**4.9%**	**2013**	13
Poland (Men Colonoscopy)	55-64	86,478	25,484	4,545	**29.5%**	**5.3%**	**2013**	13
Portugal Alentejo-Centre (Men + Women FIT)	50-69	405,869	24,185	15,178	**6.0%**	**3.7%**	**2014**	14
Spain (Women FIT)	50-69	1,547,213	464,919	242,013	**30.0%**	**15.6%**	**2013**	
Spain (Men FIT)	50-69	1,484,386	424,670	207,855	**28.6%**	**14.0%**	**2013**	
Sweden Stockholm Gotland (Women gFOBT)	60-69	57,906	60,522	39,223	**104.5%**	**67.7%**	**2013**	
Sweden Stockholm Gotland (Men gFOBT)	60-69	54,431	56,522	31,187	**103.8%**	**57.3%**	**2013**	
Subtotal - areas in which screening is rolled out in the countries or regions shown		**10,669,940**	**6,230,427**	**3,114,423**	**58.4%**	**29.2%**		
Total (EUROSTAT population)		**17,116,470**	**6,230,427**	**3,114,423**	**36.4%**	**18.2%**		

Results are presented only for countries or regions with incomplete rollout for which information was available on the extent of rollout in the index year.
Coverage is calculated by dividing the annual number of persons invited, or screened, by the annual population in the respective programme-specific age range.
Programme-specific age ranges: the screening age ranges set by the programme policies in respective countries or regions.
Annual populations are estimated by multiplying the national or regional population by the proportion of the population to which the programme was rolled out in the index year.
Population estimates correspond to estimates for 2013 obtained from EUROSTAT data (online data code: proj_13rpms).
For the countries and regions shown, the screening programme type in the index year is the same as in Table 3.3.1.: population-based.

(11) Finland: programme rollout is designed as an experimental study covering 40% of the country to assess the impact of screening; eligible men and women are randomized by birth cohort to screening or control (usual care).
(12) The Netherlands: programme roll-out is designed to achieve complete coverage within 5 years, by including 3 new birth cohorts every year.
(13) Poland: programme roll-out is designed as an experiental study to assess the impact of screening: eligible men and women are randomized every year to immediate, or delayed (by 5 years) screening, or controls (never invited).
(14) Portugal Alentejo and Centre regions: programme roll-out was initiated in the two regions in 2009 and 2011, and by 2014 targeted 42% of the local health units in the two regions.
(5) Difference between all areas, and areas in which screening is rolled out in countries or regions shown .
(6) Totals collated from respective country or regional data in Table 4.14.1.

Table 4.15. Colorectal cancer screening programmes in the EU

Participation rate (%)

Numerator (N) = Individuals screened of invited in the year
Denominator (D) = Individuals personally invited in the year

Screening Test	Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total, all ages			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
FIT	**Belgium Flemish region**													330,602	657,887	**50.3%**	
	France Calvados	7,872	46,542	**16.9%**	8,615	30,028	**28.7%**	3,086	9,350	**33.0%**				19,573	85,920	**22.8%**	
	Hungary	4,323	13,048	**33.1%**	3,898	9,397	**41.5%**	97	190	**51.1%**				8,318	22,635	**36.7%**	
	Ireland				25,264	58,638	**43.1%**							25,264	58,636	**43.1%**	
	Italy	977,744	2,255,257	**43.4%**	991,787	2,057,728	**48.2%**							1,969,531	4,312,985	**45.7%**	
	Malta				6,750	18,908	**35.7%**							6,750	18,908	**35.7%**	
	Netherlands				374,722	506,633	**74.0%**				154,334	235,281	**65.6%**	529,056	741,914	**71.3%**	
	Portugal													15178	24185	**62.8%**	
	Slovenia	146,103	322,544	**45.3%**	106,550	177,972	**59.9%**							252,653	500,516	**50.5%**	
	Spain	245,358	471,554	**52.0%**	219,409	418,035	**52.5%**							464,767	889,589	**52.2%**	
	Total	**1,381,400**	**3,108,945**	**44.4%**	**1,736,995**	**3,277,339**	**53.0%**	**3,183**	**9,540**	**33.4%**	**154,334**	**235,281**	**65.6%**	**3,621,692**	**7,313,175**	**49.5%**	
gFOBT	**Belgium Wallonia + Brussels**	11,941	298,301	**4.0%**	12,540	250,021	**5.0%**	3,715	78,819	**4.7%**				28,196	627,141	**4.5%**	
	Croatia													202,951	1,329,867	**15.3%**	
	Finland				59,385	89,174	**66.6%**							59,385	89,174	**66.6%**	
	France	956,300	4,511,559	**21.2%**	901,948	3,286,095	**27.4%**	302,170	1,053,816	**28.7%**				2,160,418	8,851,470	**24.4%**	
	Sweden Stockholm Gotland				70,410	117,044	**60.2%**							70,410	117,044	**60.2%**	
	UK England				1,706,778	3,090,537	**55.2%**	464,251	837,774	**55.4%**				2,171,029	3,928,311	**55.3%**	
	UK Northern Ireland													66,051	120,916	**54.6%**	
	UK Scotland	217,944	418,229	**52.1%**	199,446	316,067	**63.1%**	76,177	125,918	**60.5%**	2,578	2,863	**90.0%**	496,145	863,077	**57.5%**	
	UK Wales				84,871	167,987	**50.5%**	31,649	61,230	**51.7%**				116,520	229,217	**50.8%**	
	Total	**1,186,185**	**5,228,089**	**22.7%**	**3,035,378**	**7,316,925**	**41.5%**	**877,962**	**2,157,557**	**40.7%**	**2,578**	**2,863**	**90.0%**	**5,371,105**	**16,156,217**	**33.2%**	
Endoscopy	**Italy Piedmont Sigmoidoscopy**	12,778	52,259	**24.5%**										12,778	52,259	**24.5%**	*1*
	Poland	4,763	30,275	**15.7%**	4,517	25,261	**17.9%**							9,280	55,536	**16.7%**	

Notes

1) The screening protocol is actually including the offer of biennial FIT until age 69 to subjects refusing the invitation to perform FS. Therefore, taking into account the response rate to the FIT invitation among subjects refusing FS, the overall response to the sequentail approach was 37.3%.

Tables 4.16. Colorectal cancer screening programmes in the EU

Participation rate by gender (%)

Numerator (N) = Individuals screened of invited in the year
Denominator (D) = Individuals personally invited in the year

Screening Test	Member state, Gender, Screening test	50-59 years			60-69 years			70-74 years			75-79 years			Total, all ages			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
FIT	Belgium Flemish region, Women, FIT													171,837	330,747	**52.0%**	
	Belgium Flemish region, Men, FIT													158,765	327,140	**48.5%**	
	France Calvados, Women, FIT	4,526	22,995	**19.7%**	4,917	15,686	**31.3%**	1,789	5,275	**33.9%**				11,232	43,956	**25.6%**	
	France Calvados, Men, FIT	3,346	23,547	**14.2%**	3,698	14,342	**25.8%**	1,297	4,075	**31.8%**				8,341	41,964	**19.9%**	
	Hungary, Women, FIT	2,450	6,671	**36.7%**	2,221	5,046	**44.0%**	53	100	**53.0%**				4,724	11,817	**40.0%**	
	Hungary, Men, FIT	1,873	6,377	**29.4%**	1,677	4,351	**38.5%**	44	90	**48.9%**				3,594	10,818	**33.2%**	
	Italy, Women, FIT	530,280	1,151,370	**46.1%**	532,458	1,070,669	**49.7%**							1,062,738	2,222,039	**47.8%**	
	Italy, Men, FIT	447,464	1,103,887	**40.5%**	459,329	987,059	**46.5%**							906,793	2,090,946	**43.4%**	
	Netherlands, Women, FIT				191,058	251,457	**76.0%**				81,261	125,086	**65.0%**	272,319	376,543	**72.3%**	
	Netherlands, Men, FIT				183,664	255,176	**72.0%**				73,073	110,195	**66.3%**	256,737	365,371	**70.3%**	
	Slovenia, Women, FIT	80,160	159,142	**50.4%**	58,892	92,818	**63.4%**							139,052	251,960	**55.2%**	
	Slovenia, Men, FIT	65,943	163,402	**40.4%**	47,658	85,154	**56.0%**							113,601	248,556	**45.7%**	
	Spain, Women, FIT	131,925	243,836	**54.1%**	119,205	221,083	**53.9%**							251,130	464,919	**54.0%**	
	Spain, Men, FIT	113,433	227,718	**49.8%**	100,204	196,952	**50.9%**							213,637	424,670	**50.3%**	
	Total Women	**749,341**	**1,584,014**	**47.3%**	**908,751**	**1,656,759**	**54.9%**	**1,842**	**5,375**	**34.3%**	**81,261**	**125,086**	**65.0%**	**1,913,032**	**3,701,981**	**51.7%**	
	Total Men	**632,059**	**1,524,931**	**41.4%**	**796,230**	**1,543,034**	**51.6%**	**1,341**	**4,165**	**32.2%**	**73,073**	**110,195**	**66.3%**	**1,661,468**	**3,509,465**	**47.3%**	
gFOBT	Belgium Wallonia + Brussels, Women, gFOBT	6,158	147,636	**4.2%**	6,706	128,197	**5.2%**	1,952	41,973	**4.7%**				14,816	317,806	**4.7%**	
	Belgium Wallonia + Brussels, Men, gFOBT	5,783	150,665	**3.8%**	5,834	121,824	**4.8%**	1,763	36,846	**4.8%**				13,380	309,335	**4.3%**	
	Finland, Women, gFOBT				33,382	45,315	**73.7%**							33,382	45,315	**73.7%**	
	Finland, Men, gFOBT				26,003	43,859	**59.3%**							26,003	43,859	**59.3%**	
	France, Women, gFOBT	523,964	2,253,991	**23.2%**	496,619	1,665,272	**29.8%**	167,755	558,381	**30.0%**				1,188,338	4,477,644	**26.5%**	
	France, Men, gFOBT	432,336	2,257,568	**19.2%**	405,329	1,620,823	**25.0%**	134,415	495,435	**27.1%**				972,080	4,373,826	**22.2%**	
	Sweden Stockholm Gotland, Women, gFOBT				39,223	60,522	**64.8%**							39,223	60,522	**64.8%**	
	Sweden Stockholm Gotland, Men, gFOBT				31,187	56,522	**55.2%**							31,187	56,522	**55.2%**	
	UK England, Women, gFOBT				906,606	1,558,926	**58.2%**	243,996	437,384	**55.8%**				1,150,602	1,996,310	**57.6%**	
	UK England, Men, gFOBT				800,172	1,531,611	**52.2%**	220,255	400,390	**55.0%**				1,020,427	1,932,001	**52.8%**	
	UK Scotland, Women, gFOBT	115,516	208,598	**55.4%**	105,417	160,914	**65.5%**	41,629	67,987	**61.2%**	1,286	1,447	**88.9%**	263,848	438,946	**60.1%**	
	UK Scotland, Men, gFOBT	102,428	209,631	**48.9%**	94,029	155,153	**60.6%**	34,548	57,931	**59.6%**	1,292	1,416	**91.2%**	232,297	424,131	**54.8%**	
	UK Wales, Women, gFOBT				45,626	84,969	**53.7%**	16,677	31,873	**52.3%**				62,303	116,842	**53.3%**	
	UK Wales, Men, gFOBT				39,245	83,018	**47.3%**	14,972	29,357	**51.0%**				54,217	112,375	**48.2%**	
	Total Women	**645,638**	**2,610,225**	**24.7%**	**1,633,579**	**3,704,115**	**44.1%**	**472,009**	**1,137,598**	**41.5%**				**2,752,512**	**7,453,385**	**36.9%**	
	Total Men	**540,547**	**2,617,864**	**20.6%**	**1,401,799**	**3,612,810**	**38.8%**	**405,953**	**1,019,959**	**39.8%**				**2,349,591**	**7,252,049**	**32.4%**	
Endoscopy	Italy Piedmont, Women, Sigmoidoscopy	6,235	26,738	**23.3%**										6,235	26,738	**23.3%**	
	Italy Piedmont, Men, Sigmoidoscopy	6,543	25,521	**25.6%**										6,543	25,521	**25.6%**	
	Poland, Women, Colonoscopy	2,395	16,115	**14.9%**	2,352	13,937	**16.9%**							4,747	30,052	**15.8%**	
	Poland, Men, Colonoscopy	2,368	14,160	**16.7%**	2,165	11,324	**19.1%**							4,533	25,484	**17.8%**	

Table 4.17. Colorectal cancer screening programmes in the EU

Completeness of data related to screening results, attendance to colonoscopy assessment and histology result

All ages (screening protocol)	Completeness of data related to screening results			Completeness of data related to information about attendance to colonoscopy assessment			Completeness of data related to histology result			Notes
	No. of screening results	No. of screening tests	%	No. of attendands to colonoscopy assessment	No. of positive tests	%	Number of tests with histology result	No. of subjects examined	%	
Austria										
Belgium Flemish region (FIT)	317,521	317,521	**100%**	25,873	25,873	**100%**	0	9,392	**0%**	*1*
Belgium Wallonia + Brussels (gFOBT)	40,619	41,490	**98%**	1,625	1,625	**100%**	969	1,179	**82%**	
Bulgaria										
Croatia (gFOBT)	202,951	202,951	**100%**	6,645	8,112	**82%**	5,489	6,645	**83%**	
Cyprus										
Czech Republic (FIT)	535,709	535,709	**100%**	21,014	39,770	**53%**	21,014	21,014	**100%**	
Czech Republic (Colonoscopy)	4,504	4,504	**100%**				4,504	4,504	**100%**	
Denmark										
Estonia										
Finland (gFOBT)	59,250	59,250	**100%**	1,714	1,728	**99%**	1,382	1,382	**100%**	
France (gFOBT)	2,316,253	2,366,408	**98%**	51,575	51,575	**100%**	42,884	43,328	**99%**	
France Calvados (FIT)	23,608	23,795	**99%**	776	776	**100%**	679	681	**100%**	
Germany										
Greece										
Hungary (FIT)	7,860	8,318	**94%**	757	757	**100%**	426	494	**86%**	
Ireland (FIT)	23,511	23,482	**100%**	1,891	1,898	**100%**	749	1,352	**55%**	
Italy (FIT)	1,969,531	1,981,349	**99%**	94,725	94,725	**100%**	73,475	73,475	**100%**	
Italy (Sigmoidoscopy)	*11,551*	*11,551*	*100%*	*1,329*	*1,329*	*100%*	*11,551*	*11,551*	*100%*	
Latvia (gFOBT)	68,498	68,498	**100%**		2,807	**0%**				
Lithuania (FIT)	234,257	234,257	**100%**	17,053	17,053	**100%**	0	8,383	**0%**	
Luxembourg										
Malta (FIT)	6,729	6,895	**98%**	290	290	**100%**	192	192	**100%**	
Netherlands (FIT)	524,095	529,056	**99%**	40,842	40,842	**100%**	31,744	31,759	**100%**	
Poland (Colonoscopy)	9,280	9,280	**100%**				9,280	9,280	**100%**	
Portugal	0	15,178	**0%**							
Romania										
Slovakia Republic										
Slovenia (FIT)	251,948	252,653	**100%**	15,147	15,147	**100%**	13,969	13,969	**100%**	
Spain (FIT)	448,959	449,868	**100%**	30,001	30,001	**100%**	27,207	27,207	**100%**	
Sweden Stockholm Gotland (gFOBT)	70,410	70,410	**100%**	2,299	2,299	**100%**	2,056	2,056	**100%**	
UK England (gFOBT)	2,171,029	2,171,029	**100%**	39,697	39,697	**100%**	30,685	33,116	**93%**	
UK England (Sigmoidoscopy)										
UK Northern Ireland (gFOBT)	62,970	66,051	**95%**	1,563	1,563	**100%**	1,272	1,277	**100%**	
UK Scotland (gFOBT)	491,531	491,531	**100%**	9,800	10,171	**96%**	7,995	8,098	**99%**	
UK Wales (gFOBT)	135,768	140,156	**97%**	3,005	3,005	**100%**	2,027	2,482	**82%**	

Notes

1) Follow-up data were not complete at the time of data collection. Complete data are now available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

Table 4.18.1. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)
Screen positivity (indication for follow-up colonoscopy) rate (%)

Numerator (N) = Positive screening tests in the year
Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Wallonia + Brussels	627	17,237	**3.6%**	768	18,238	**4.2%**	230	5,144	**4.5%**				1,625	40,619	**4.0%**	
Croatia													8,112	202,951	**4.0%**	
Finland				1,728	59,250	**2.9%**							1,728	59,250	**2.9%**	
France	20,343	1,032,217	**2.0%**	22,548	966,527	**2.3%**	8,684	317,509	**2.7%**				51,575	2,316,253	**2.2%**	
Latvia	986	29,733	**3.3%**	1,259	27,786	**4.5%**	562	10,979	**5.1%**				2,807	68,498	**4.1%**	
Sweden Stockholm Gotland				2,299	65,062	**3.5%**							2,299	65,062	**3.5%**	
UK England				29,704	1,706,778	**1.7%**	9,993	464,251	**2.2%**				39,697	2,171,029	**1.8%**	
UK Northern Ireland													1,563	62,970	**2.5%**	
UK Scotland	3,506	215,795	**1.6%**	4,348	197,531	**2.2%**	1,876	75,638	**2.5%**	441	2,567	**17.2%**	10,171	491,531	**2.1%**	
UK Wales				2,047	99,051	**2.1%**	958	36,717	**2.6%**				3,005	135,768	**2.2%**	*1*
Total	**25,462**	**1,294,982**	**2.0%**	**64,701**	**3,140,223**	**2.1%**	**22,303**	**910,238**	**2.5%**	**441**	**2,567**	**17.2%**	**122,582**	**5,613,931**	**2.2%**	

Notes

1) FIT is used as a triage test among subjects with positive gFOBT

Table 4.18.2. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)

Follow-up colonoscopy participation rate (%)

Numerator (N) = Further colonoscopy performed

Denominator (D) = Data on further colonoscopy performance available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Wallonia + Brussels	450	627	**71.8%**	575	768	**74.9%**	154	230	**67.0%**				1,179	1,625	**72.6%**	
Croatia													6,645	8,112	**81.9%**	
Finland				1,382	1,714	**80.6%**							1,382	1,714	**80.6%**	*2*
France	16,935	20,343	**83.2%**	19,177	22,548	**85.0%**	7,216	8,684	**83.1%**				43,328	51,575	**84.0%**	
Latvia																*4*
Sweden Stockholm Gotland				2,056	2,299	**89.4%**							2,056	2,299	**89.4%**	
UK England				25,088	29,704	**84.5%**	8,028	9,993	**80.3%**				33,116	39,697	**83.4%**	
UK Northern Ireland													1,277	1,563	**81.7%**	
UK Scotland	2,875	3,402	**84.5%**	3,455	4,193	**82.4%**	1,428	1,782	**80.1%**	340	423	**80.4%**	8,098	9,800	**82.6%**	*3*
UK Wales				1,720	2,047	**84.0%**	762	958	**79.5%**				2,482	3,005	**82.6%**	
Total	**20,260**	**24,372**	**83.1%**	**53,453**	**63,273**	**84.5%**	**17,588**	**21,647**	**81.2%**	**340**	**423**	**80.4%**	**99,563**	**119,390**	**83.4%**	

Notes

2) Information not available for 14 cases

3) Information not available for 371 cases

4) Data not available

Table 4.18.3. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)
Completion rate follow-up colonoscopy (%)

Numerator (N) = Follow-up colonoscopy completed
Denominator (D) = Data on completion of follow-up colonoscopy available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Wallonia + Brussels	410	450	**91.1%**	525	575	**91.3%**	138	154	**89.6%**				1,073	1,179	**91.0%**	
Croatia																*4*
Finland																*4*
France	15,920	16,207	**98.2%**	17,907	18,372	**97.5%**	6,661	6,898	**96.6%**				40,488	41,477	**97.6%**	*5bis*
Latvia																*4*
Sweden Stockholm Gotland				1,954	2,056	**95.0%**							1,954	2,056	**95.0%**	
UK England																*4*
UK Northern Ireland													1,232	1,277	**96.5%**	
UK Scotland	2,779	2,875	**96.7%**	3,292	3,455	**95.3%**	1,363	1,428	**95.4%**	325	340	**95.6%**	7,759	8,098	**95.8%**	
UK Wales				1,604	1,668	**96.2%**	703	741	**94.9%**				2,307	2,409	**95.8%**	*5*
Total	**19,109**	**19,532**	**97.8%**	**25,282**	**26,126**	**96.8%**	**8,865**	**9,221**	**96.1%**	**325**	**340**	**95.6%**	**54,813**	**56,496**	**97.0%**	

Notes
4) Data not available
5) Completion status not reported in 73 cases
5bis) Completion status not reported in 1851 cases

Table 4.18.4. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)

Detection rate of adenomas (%)

Numerator (N) = Adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Wallonia + Brussels	169	17,237	**1.0%**	224	18,238	**1.2%**	67	5,144	**1.3%**				460	40,619	**1.1%**	
Croatia													2,160	202,951	**1.1%**	6
Finland				415	59,250	**0.7%**							415	59,250	**0.7%**	
France	5,075	1,032,217	**0.5%**	6,851	966,527	**0.7%**	2,638	317,509	**0.8%**				14,564	2,316,253	**0.6%**	
Latvia																*4*
Sweden Stockholm Gotland				490	65,062	**0.8%**							490	65,062	**0.8%**	
UK England				8,767	1,706,778	**0.5%**	2,896	464,251	**0.6%**				11,663	2,171,029	**0.5%**	
UK Northern Ireland													597	62,970	**0.9%**	
UK Scotland	936	215,795	**0.4%**	1,400	197,531	**0.7%**	567	75,638	**0.7%**	155	2,567	**6.0%**	3,058	491,531	**0.6%**	
UK Wales				416	99,051	**0.4%**	149	36,717	**0.4%**				565	135,768	**0.4%**	
Total	**6,180**	**1,265,249**	**0.5%**	**18,563**	**3,112,437**	**0.6%**	**6,317**	**899,259**	**0.7%**	**155**	**2,567**	**6.0%**	**33,972**	**5,545,433**	**0.6%**	

Notes

4) Data not available

6) Information on colonoscopy results are available for 5489 out of 8112 subjects with a positive screening test; histology underregistration may lead to underestimation of the DR

Table 4.18.5. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)

Detection rate of advanced adenomas (%)

Numerator (N) = Advanced adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Wallonia + Brussels	68	17,237	**0.4%**	98	18,238	**0.5%**	22	5,144	**0.4%**				188	40,619	**0.5%**	
Croatia																*4*
Finland				56	59,250	**0.1%**							56	59,250	**0.1%**	
France	2,949	1,032,217	**0.3%**	4,077	966,527	**0.4%**	1,537	317,509	**0.5%**				8,563	2,316,253	**0.4%**	
Latvia																*4*
Sweden Stockholm Gotland				174	65,062	**0.3%**							174	65,062	**0.3%**	
UK England				2,365	1,706,778	**0.1%**	955	464,251	**0.2%**				3,320	2,171,029	**0.2%**	
UK Northern Ireland																*4*
UK Scotland	107	215,795	**0.0%**	193	197,531	**0.1%**	83	75,638	**0.1%**	22	2,567	**0.9%**	405	491,531	**0.1%**	
UK Wales																*4*
Total	**3,124**	**1,265,249**	**0.2%**	**6,963**	**3,013,386**	**0.2%**	**2,597**	**862,542**	**0.3%**	**22**	**2,567**	**0.9%**	**12,706**	**5,143,744**	**0.2%**	

Notes

4) Data not available

Table 4.18.6. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)

Detection rate of colorectal cancers (/1,000)

Numerator (N) = Colorectal cancers detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	‰	N	D	‰	N	D	‰	N	D	‰	N	D	‰	
Belgium Wallonia + Brussels	17	17,237	**0.99**	47	18,238	**2.58**	15	5,144	**2.92**				79	40,619	**1.94**	
Croatia													328	202,951	**1.62**	6
Finland				53	59,250	**0.89**							53	59,250	**0.89**	
France	642	1,032,217	**0.62**	1,196	966,527	**1.24**	610	317,509	**1.92**				2,448	2,316,253	**1.06**	
Latvia																*4*
Sweden Stockholm Gotland				67	65,062	**1.03**							67	65,062	**1.03**	
UK England				1,974	1,706,778	**1.16**	877	464,251	**1.89**				2,851	2,171,029	**1.31**	
UK Northern Ireland													103	62,970	**1.64**	
UK Scotland	141	215,795	**0.65**	243	197,531	**1.23**	150	75,638	**1.98**	26	2,567	**10.13**	560	491,531	**1.14**	
UK Wales				124	99,051	**1.25**	71	36,717	**1.93**				195	135,768	**1.44**	
Total	**800**	**1,265,249**	**0.63**	**3,704**	**3,112,437**	**1.19**	**1,723**	**899,259**	**1.92**	**26**	**2,567**	**10.13**	**6,684**	**5,545,433**	**1.21**	

Notes

4) Data not available

6) Information on colonoscopy results are available for 5489 out of 8112 subjects with a positive screening test; histology underregistration may lead to underestimation of the DR

Table 4.18.7. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)

PPV of adenomas (%)

Numerator (N) = Adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Wallonia + Brussels	169	450	**37.6%**	224	575	**39.0%**	67	154	**43.5%**				460	1,179	**39.0%**	
Croatia													2,160	6,645	**32.5%**	*7*
Finland				415	1,382	**30.0%**							415	1,382	**30.0%**	
France	5,075	16,935	**30.0%**	6,851	19,177	**35.7%**	2,638	7,216	**36.6%**				14,564	43,328	**33.6%**	
Latvia																*4*
Sweden Stockholm Gotland				490	2,056	**23.8%**							490	2,056	**23.8%**	
UK England				8,767	25,088	**34.9%**	2,896	8,028	**36.1%**				11,663	33,116	**35.2%**	
UK Northern Ireland													597	1,277	**46.8%**	
UK Scotland	936	2,875	**32.6%**	1,400	3,455	**40.5%**	567	1,428	**39.7%**	155	340	**45.6%**	3,058	8,098	**37.8%**	
UK Wales				416	1,720	**24.2%**	149	762	**19.6%**				565	2,482	**22.8%**	
Total	**6,180**	**20,260**	**30.5%**	**18,563**	**53,453**	**34.7%**	**6,317**	**17,588**	**35.9%**	**155**	**340**	**45.6%**	**33,972**	**99,563**	**34.1%**	

Notes

4) Data not available

7) Histology result not available for 1156 subjects undergoing assessmnent TC

Table 4.18.8. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)

PPV of advanced adenomas (%)

Numerator (N) = Advanced adenomas detected
Denominator (D) = Follow-up colonoscopy performed

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Wallonia + Brussels	68	450	**15.1%**	98	575	**17.0%**	22	154	**14.3%**				188	1,179	**15.9%**	
Croatia																*4*
Finland				56	1,382	**4.1%**							56	1,382	**4.1%**	
France	2,949	16,935	**17.4%**	4,077	19,177	**21.3%**	1,537	7,216	**21.3%**				8,563	43,328	**19.8%**	
Latvia																*4*
Sweden Stockholm Gotland				174	2,056	**8.5%**							174	2,056	**8.5%**	
UK England				2,365	25,088	**9.4%**	955	8,028	**11.9%**				3,320	33,116	**10.0%**	
UK Northern Ireland																*4*
UK Scotland	107	2,875	**3.7%**	193	3,455	**5.6%**	83	1,428	**5.8%**	22	340	**6.5%**	405	8,098	**5.0%**	
UK Wales																*4*
Total	**3,124**	**20,260**	**15.4%**	**6,963**	**51,733**	**13.5%**	**2,597**	**16,826**	**15.4%**	**22**	**340**	**6.5%**	**12,706**	**89,159**	**14.3%**	

Notes

4) Data not available

Table 4.18.9 Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (gFOBT)

PPV of colorectal cancers (%)

Numerator (N) = Colorectal cancers detected

Denominator (D) = Follow-up colonoscopy performed

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Wallonia + Brussels	17	450	**3.8%**	47	575	**8.2%**	15	154	**9.7%**				79	1,179	**6.7%**	
Croatia													328	6,645	**4.9%**	*7*
Finland				53	1,382	**3.8%**							53	1,382	**3.8%**	
France	642	16,935	**3.8%**	1,196	19,177	**6.2%**	610	7,216	**8.5%**				2,448	43,328	**5.6%**	
Latvia																*4*
Sweden Stockholm Gotland				67	2,056	**3.3%**							67	2,056	**3.3%**	
UK England				1,974	25,088	**7.9%**	877	8,028	**10.9%**				2,851	33,116	**8.6%**	
UK Northern Ireland													103	1,277	**8.1%**	
UK Scotland	141	2,875	**4.9%**	243	3,455	**7.0%**	150	1,428	**10.5%**	26	340	**7.6%**	560	8,098	**6.9%**	
UK Wales				124	1,720	**7.2%**	71	762	**9.3%**				195	2,482	**7.9%**	
Total	**800**	**20,260**	**3.9%**	**3,704**	**53,453**	**6.9%**	**1,723**	**17,588**	**9.8%**	**26**	**340**	**7.6%**	**6,684**	**99,563**	**6.7%**	

Notes

4) Data not available

7) Histology result not available for 1156 subjects undergoing assessmnent TC

Table 4.19.1. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)
Screen positivity (indication for follow-up colonoscopy) rate (%)

Numerator (N) = Positive screening tests in the year
Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Positivity cut off µg/gr faeces	Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%		
Belgium Flemish region	7,029	62,284	**11.3%**	14,263	184,226	**7.7%**	4,581	71,010	**6.5%**				25,873	317,520	**8.1%**	15	*1*
Czech Republic	12,960	204,617	**6.3%**	17,112	219,927	**7.8%**	6,067	70,775	**8.6%**	3,631	40,390	**9.0%**	39,770	535,709	**7.4%**	15	
France Calvados	323	10,065	**3.2%**	316	10,098	**3.1%**	137	3,445	**4.0%**				776	23,608	**3.3%**	180	
Hungary	369	4,102	**9.0%**	400	3,764	**10.6%**							769	7,866	**9.8%**	20	
Italy	39,483	977,744	**4.0%**	55,242	991,787	**5.6%**							94,725	1,969,531	**4.8%**	20	
Ireland				1,898	23,511	**8.1%**							1,898	23,511	**8.1%**	20	
Lithuania	7,219	113,911	**6.3%**	6,969	87,566	**8.0%**	2,865	32,780	**8.7%**				17,053	234,257	**7.3%**	NA	*2*
Malta				290	6,754	**4.3%**							290	6,754	**4.3%**	16-20	*3*
Netherlands				23,651	371,415	**6.4%**				17,191	152,720	**11.3%**	40,842	524,135	**7.8%**	15-47	*4*
Slovenia	7,830	145,632	**5.4%**	7,317	106,316	**6.9%**							15,147	251,948	**6.0%**	20	*5*
Spain	13,370	235,628	**5.7%**	16,631	213,331	**7.8%**							30,001	448,959	**6.7%**	15-20	*6*
Total	**88,583**	**1,753,983**	**5.1%**	**144,089**	**2,218,695**	**6.5%**	**13,650**	**178,010**	**7.7%**	**20,822**	**193,110**	**10.8%**	**267,144**	**4,343,798**	**6.2%**		

Notes

1) First target age group is 56-59
2) Information not available
3) Age range 60-64; Subjects with borderline (16-19) values are invited to repeat
4) T he positivity cut-off was raised during the reference period for data collection
5) Two samples collected
6) Different kits are used in different regions; f-Hb concentration differs by type of kit at the same cut-off

Table 4.19.2. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)

Follow-up colonoscopy participation rate (%)

Numerator (N) = Further colonoscopy performed

Denominator (D) = Data on further colonoscopy performance available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Flemish region													9,392	25,873	**36.3%**	*7*
Czech Republic	7,474	12,960	**57.7%**	9,082	17,112	**53.1%**	2,931	6,067	**48.3%**	1,527	3,631	**42.1%**	21,014	39,770	**52.8%**	
France Calvados	286	323	**88.5%**	276	316	**87.3%**	119	137	**86.9%**				681	776	**87.8%**	
Hungary	228	369	**61.8%**	266	400	**66.5%**							494	769	**64.2%**	
Italy	31,755	39,483	**80.4%**	41,720	55,242	**75.5%**							73,475	94,725	**77.6%**	
Ireland				1,352	1,898	**71.2%**							1,352	1,898	**71.2%**	
Lithuania	3,422	7,219	**47.4%**	3,539	6,969	**50.8%**	1,422	2,865	**49.6%**				8,383	17,053	**49.2%**	
Malta				192	290	**66.2%**							192	290	**66.2%**	
Netherlands				18,660	22,971	**81.2%**				13,099	17,147	**76.4%**	31,759	40,118	**79.2%**	*8*
Slovenia	7,279	7,830	**93.0%**	6,690	7,317	**91.4%**							13,969	15,147	**92.2%**	
Spain	12,186	13,370	**91.1%**	15,021	16,631	**90.3%**							27,207	30,001	**90.7%**	
Total	**62,630**	**81,554**	**76.8%**	**96,798**	**129,139**	**75.0%**	**4,472**	**9,069**	**49.3%**	**14,626**	**20,778**	**70.4%**	**187,918**	**266,420**	**70.5%**	

Notes

7) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

8) Information about performance status not available for 724 people

Table 4.19.3. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)
Completion rate follow-up colonoscopy (%)

Numerator (N) = Follow-up colonoscopy completed
Denominator (D) = Data on completion of follow-up colonoscopy available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Flemish region													9,254	9,392	**98.5%**	7
Czech Republic	7,254	7,474	**97.1%**	8,749	9,082	**96.3%**	2,808	2,931	**95.8%**	1,448	1,527	**94.8%**	20,259	21,014	**96.4%**	
France Calvados	270	286	**94.4%**	255	276	**92.4%**	110	119	**92.4%**				635	681	**93.2%**	
Hungary																*2*
Italy	29,249	31,755	**92.1%**	38,671	41,720	**92.7%**							67,920	73,475	**92.4%**	
Ireland				1,299	1,352	**96.1%**							1,299	1,352	**96.1%**	*9*
Lithuania																*2*
Malta																*2*
Netherlands																*2*
Slovenia	7,194	7,279	**98.8%**	6,603	6,690	**98.7%**							13,797	13,969	**98.8%**	
Spain	11,391	12,186	**93.5%**	13,857	15,021	**92.3%**							25,248	27,207	**92.8%**	
Total	**55,358**	**58,980**	**93.9%**	**69,434**	**74,141**	**93.7%**	**2,918**	**3,050**	**95.7%**	**1,448**	**1,527**	**94.8%**	**138,412**	**147,090**	**94.1%**	

Notes

2) Data not available

7) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

9) Information about colonoscopy outcome and completion rate is not availabe for 546 people

Table 4.19.4. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)
Detection rate of adenomas (%)

Numerator (N) = Adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Flemish region																*7*
Czech Republic	2,550	204,617	**1.2%**	3,751	219,927	**1.7%**	1,283	70,775	**1.8%**	620	40,390	**1.5%**	8,204	535,709	**1.5%**	
France Calvados	89	10,065	**0.9%**	107	10,098	**1.1%**	59	3,445	**1.7%**				255	23,608	**1.1%**	
Hungary	108	4,102	**2.6%**	144	3,764	**3.8%**							252	7,866	**3.2%**	
Italy	11,186	977,744	**1.1%**	16,777	991,787	**1.7%**							27,963	1,969,531	**1.4%**	
Ireland				686	23,511	**2.9%**							686	23,511	**2.9%**	*9*
Lithuania																*2*
Malta				116	6,754	**1.7%**							116	6,754	**1.7%**	
Netherlands				11,098	371,415	**3.0%**				7,548	152,720	**4.9%**	18,646	524,135	**3.6%**	
Slovenia	3,457	145,632	**2.4%**	3,634	106,316	**3.4%**							7,091	251,948	**2.8%**	
Spain	6,501	235,628	**2.8%**	8,513	213,331	**4.0%**							15,014	448,959	**3.3%**	
Total	**23,891**	**1,577,788**	**1.5%**	**44,826**	**1,946,903**	**2.3%**	**1,342**	**74,220**	**1.8%**	**8,168**	**193,110**	**4.2%**	**78,227**	**3,792,021**	**2.1%**	

Notes

2) Data not available

7) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

9) Information about colonoscopy outcome and completion rate is not availabe for 546 people; histology underregistration may lead to underestimation of the DR

Table 4.19.5. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)

Detection rate of advanced adenomas (%)

Numerator (N) = Advanced adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Flemish region																*7*
Czech Republic	1,150	204,617	**0.6%**	1,771	219,927	**0.8%**	615	70,775	**0.9%**	291	40,390	**0.7%**	3,827	535,709	**0.7%**	
France Calvados	54	10,065	**0.5%**	59	10,098	**0.6%**	31	3,445	**0.9%**				144	23,608	**0.6%**	
Hungary																*2*
Italy	5,893	977,744	**0.6%**	8,598	991,787	**0.9%**							14,491	1,969,531	**0.7%**	
Ireland																*2*
Lithuania																*2*
Malta																*2*
Netherlands				7,420	371,415	**2.0%**				4,610	152,720	**3.0%**	12,030	524,135	**2.3%**	
Slovenia	2,125	145,632	**1.5%**	2,240	106,316	**2.1%**							4,365	251,948	**1.7%**	
Spain	4,425	235,628	**1.9%**	5,870	213,331	**2.8%**							10,295	448,959	**2.3%**	
Total	**13,647**	**1,573,686**	**0.9%**	**25,958**	**1,912,874**	**1.4%**	**646**	**74,220**	**0.9%**	**4,901**	**193,110**	**2.5%**	**45,152**	**3,753,890**	**1.2%**	

Notes

2) Data not available

7) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

Table 4.19.6. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)

Detection rate of colorectal cancers (/1,000)

Numerator (N) = Colorectal cancers detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	‰	N	D	‰	N	D	‰	N	D	‰	N	D	‰	
Belgium Flemish region																*7*
Czech Republic	122	204,617	**0.60**	285	219,927	**1.30**	130	70,775	**1.84**	95	40,390	**2.35**	632	535,709	**1.18**	
France Calvados	15	10,065	**1.49**	15	10,098	**1.49**	13	3,445	**3.77**				43	23,608	**1.82**	
Hungary	11	4,102	**2.68**	15	3,764	**3.99**							26	7,866	**3.31**	
Italy	846	977,744	**0.87**	1,692	991,787	**1.71**							2,538	1,969,531	**1.29**	
Ireland				63	23,511	**2.68**							63	23,511	**2.68**	*9*
Lithuania																*2*
Malta				15	6,754	**2.22**							15	6,754	**2.22**	
Netherlands				1,365	371,415	**3.68**				1,118	152,720	**7.32**	2,483	524,135	**4.74**	
Slovenia	186	145,632	**1.28**	287	106,316	**2.70**							473	251,948	**1.88**	
Spain	482	235,628	**2.05**	864	213,331	**4.05**							1,346	448,959	**3.00**	
Total	**1,662**	**1,577,788**	**1.05**	**4,601**	**1,946,903**	**2.36**	**143**	**74,220**	**1.93**	**1,213**	**193,110**	**6.28**	**7,619**	**3,792,021**	**2.01**	

Notes

2) Data not available

7) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

9) Information about colonoscopy outcome and completion rate is not availabe for 546 people; histology underregistration may lead to underestimation of the DR

Table 4.19.7. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)

PPV of adenomas (%)

Numerator (N) = Adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Flemish region																*7*
Czech Republic	2,550	7,474	**34.1%**	3,751	9,082	**41.3%**	1,283	2,931	**43.8%**	620	1,527	**40.6%**	8,204	21,014	**39.0%**	
France Calvados	89	286	**31.1%**	107	276	**38.8%**	59	119	**49.6%**				255	681	**37.4%**	
Hungary	108	191	**56.5%**	144	235	**61.3%**							252	426	**59.2%**	*10*
Italy	11,186	31,755	**35.2%**	16,777	41,720	**40.2%**							27,963	73,475	**38.1%**	
Ireland				686	1,352	**50.7%**							686	1,352	**50.7%**	*9*
Lithuania																*2*
Malta				116	192	**60.4%**							116	192	**60.4%**	
Netherlands				11,098	18,660	**59.5%**				7,548	13,099	**57.6%**	18,646	31,759	**58.7%**	
Slovenia	3,457	7,279	**47.5%**	3,634	6,690	**54.3%**							7,091	13,969	**50.8%**	
Spain	6,501	12,186	**53.3%**	8,513	15,021	**56.7%**							15,014	27,207	**55.2%**	
Total	**23,891**	**59,171**	**40.4%**	**44,826**	**93,228**	**48.1%**	**1,342**	**3,050**	**44.0%**	**8,168**	**14,626**	**55.8%**	**78,227**	**170,075**	**46.0%**	

Notes

2) Data not available

7) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

9) Information about colonoscopy outcome and completion rate is not availabe for 546 people; histology underregistration may lead to underestimation of the DR

10) Histology results not available for 68 subjects

Table 4.19.8. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)

PPV of advanced adenomas (%)

Numerator (N) = Advanced adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Flemish region																*7*
Czech Republic	1,150	7,474	**15.4%**	1,771	9,082	**19.5%**	615	2,931	**21.0%**	291	1,527	**19.1%**	3,827	21,014	**18.2%**	
France Calvados	54	286	**18.9%**	59	276	**21.4%**	31	119	**26.1%**				144	681	**21.1%**	
Hungary																*2*
Italy	5,893	31,755	**18.6%**	8,598	41,720	**20.6%**							14,491	73,475	**19.7%**	
Ireland																*2*
Lithuania																*2*
Malta																*2*
Netherlands				7,420	18,660	**39.8%**				4,610	13,099	**35.2%**	12,030	31,759	**37.9%**	
Slovenia	2,125	7,279	**29.2%**	2,240	6,690	**33.5%**							4,365	13,969	**31.2%**	
Spain	4,425	12,186	**36.3%**	5,870	15,021	**39.1%**							10,295	27,207	**37.8%**	
Total	**13,647**	**58,980**	**23.1%**	**25,958**	**91,449**	**28.4%**	**646**	**3,050**	**21.2%**	**4,901**	**14,626**	**33.5%**	**45,152**	**168,105**	**26.9%**	

Notes

2) Data not available

7) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

Table 4.19.9. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age and screening protocol (FIT)

PPV of colorectal cancers (%)

Numerator (N) = Colorectal cancers detected

Denominator (D) = Follow-up colonoscopy performed

Member state	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
Belgium Flemish region																*7*
Czech Republic	122	7,474	**1.6%**	285	9,082	**3.1%**	130	2,931	**4.4%**	95	1,527	**6.2%**	632	21,014	**3.0%**	
France Calvados	15	286	**5.2%**	15	276	**5.4%**	13	119	**10.9%**				43	681	**6.3%**	
Hungary	11	191	**5.8%**	15	235	**6.4%**							26	426	**6.1%**	*10*
Italy	846	31,755	**2.7%**	1,692	41,720	**4.1%**							2,538	73,475	**3.5%**	
Ireland				63	1,352	**4.7%**							63	1,352	**4.7%**	*9*
Lithuania																*2*
Malta				15	192	**7.8%**							15	192	**7.8%**	
Netherlands				1,365	18,660	**7.3%**				1,118	13,099	**8.5%**	2,483	31,759	**7.8%**	
Slovenia	186	7,279	**2.6%**	287	6,690	**4.3%**							473	13,969	**3.4%**	
Spain	482	12,186	**4.0%**	864	15,021	**5.8%**							1,346	27,207	**4.9%**	
Total	**1,662**	**59,171**	**2.8%**	**4,601**	**93,228**	**4.9%**	**143**	**3,050**	**4.7%**	**1,213**	**14,626**	**8.3%**	**7,619**	**170,075**	**4.5%**	

Notes

2) Data not available

7) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

9) Information about colonoscopy outcome and completion rate is not availabe for 546 people

10) Histology results not available for 68 subjects

Table 4.20.1. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol (Endoscopy)

Screen positivity (indication for follow-up colonoscopy) rate (%)

Numerator (N) = Positive screening tests in the year

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state, Gender, Screening test	50-59 years			60-69 years			70-74 years			75-79 years			Total		
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%
Italy Piedmont, Women, Sigmoidoscopy	496	5,567	**8.9%**										496	5,567	**8.9%**
Italy Piedmont, Men, Sigmoidoscopy	833	5,996	**13.9%**										833	5,996	**13.9%**
Total	**1,329**	**11,563**	**11.5%**										**1,329**	**11,563**	**11.5%**

Table 4.20.2. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol (Endoscopy)

Follow-up colonoscopy participation rate (%)

Numerator (N) = Further colonoscopy performed

Denominator (D) = Data on further colonoscopy performance available

Member state, Gender, Screening test	50-59 years			60-69 years			70-74 years			75-79 years			Total		
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%
Italy Piedmont, Women, Sigmoidoscopy	391	496	**78.8%**										391	496	**78.8%**
Italy Piedmont, Men, Sigmoidoscopy	702	833	**84.3%**										702	833	**84.3%**
Total Sigmoidoscopy	**1,093**	**1,329**	**82.2%**										**1,093**	**1,329**	**82.2%**

Table 4.20.3. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol (Endoscopy)
Completion rate follow-up colonoscopy (%)

Numerator (N) = Follow-up colonoscopy completed
Denominator (D) = Data on completion of follow-up colonoscopy available

Member state, Gender, Screening test	50-59 years			60-69 years			70-74 years			75-79 years			Total		
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%
Italy Piedmont, Women, Sigmoidoscopy	369	391	**94.4%**										369	391	**94.4%**
Italy Piedmont, Men, Sigmoidoscopy	670	702	**95.4%**										670	702	**95.4%**
Total Sigmoidoscopy	**1,039**	**1,093**	**95.1%**										**1,039**	**1,093**	**95.1%**
Czech Republic, Women, Colonoscopy	698	727	**96.0%**	1,109	1,142	**97.1%**	228	241	**94.6%**	104	108	**96.3%**	2,139	2,218	**96.4%**
Czech Republic, Men, Colonoscopy	805	810	**99.4%**	1,119	1,134	**98.7%**	236	243	**97.1%**	96	99	**97.0%**	2,256	2,286	**98.7%**
Poland, Women, Colonoscopy	2,311	2,402	**96.2%**	2,276	2,365	**96.2%**							4,587	4,767	**96.2%**
Poland, Men, Colonoscopy	2,326	2,375	**97.9%**	2,107	2,170	**97.1%**							4,433	4,545	**97.5%**
Total Colonoscopy	**6,140**	**6,314**	**97.2%**	**6,611**	**6,811**	**97.1%**	**464**	**484**	**95.9%**	**200**	**207**	**96.6%**	**13,415**	**13,816**	**97.1%**

Note
Follow-up TC for FS programmes and screening TC for programmes using TC as primary screening tests

Table 4.20.4. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol (Endoscopy)
Detection rate of adenomas (%)

Numerator (N) = Adenomas detected
Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state, Gender, Screening test	50-59 years			60-69 years			70-74 years			75-79 years			Total		
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%
Italy Piedmont, Women, Sigmoidoscopy	468	5,567	**8.4%**										468	5,567	**8.4%**
Italy Piedmont, Men, Sigmoidoscopy	954	5,996	**15.9%**										954	5,996	**15.9%**
Total Sigmoidoscopy	**1,422**	**11,563**	**12.3%**										**1,422**	**11,563**	**12.3%**
Czech Republic, Women, Colonoscopy	124	727	**17.1%**	255	1,142	**22.3%**	66	241	**27.4%**	19	108	**17.6%**	464	2,218	**20.9%**
Czech Republic, Men, Colonoscopy	252	810	**31.1%**	420	1,134	**37.0%**	78	243	**32.1%**	35	99	**35.4%**	785	2,286	**34.3%**
Poland, Women, Colonoscopy	477	2,402	**19.9%**	522	2,365	**22.1%**							999	4,767	**21.0%**
Poland, Men, Colonoscopy	786	2,375	**33.1%**	833	2,170	**38.4%**							1,619	4,545	**35.6%**
Total Colonoscopy	**1,639**	**6,314**	**26.0%**	**2,030**	**6,811**	**29.8%**	**144**	**484**	**29.8%**	**54**	**207**	**26.1%**	**3,867**	**13,816**	**28.0%**

Table 4.20.5. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol (Endoscopy)

Detection rate of advanced adenomas (%)

Numerator (N) = Advanced adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state, Gender, Screening test	50-59 years			60-69 years			70-74 years			75-79 years			Total		
	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%
Italy Piedmont, Women, Sigmoidoscopy	165	5,567	**3.0%**										165	5,567	**3.0%**
Italy Piedmont, Men, Sigmoidoscopy	385	5,996	**6.4%**										385	5,996	**6.4%**
Total Sigmoidoscopy	**550**	**11,563**	**4.8%**										**550**	**11,563**	**4.8%**
Czech Republic, Women, Colonoscopy	25	727	**3.4%**	69	1,142	**6.0%**	23	241	**9.5%**	7	108	**6.5%**	124	2,218	**5.6%**
Czech Republic, Men, Colonoscopy	73	810	**9.0%**	128	1,134	**11.3%**	28	243	**11.5%**	11	99	**11.1%**	240	2,286	**10.5%**
Poland, Women, Colonoscopy	83	2,402	**3.5%**	100	2,365	**4.2%**							183	4,767	**3.8%**
Poland, Men, Colonoscopy	154	2,375	**6.5%**	196	2,170	**9.0%**							350	4,545	**7.7%**
Total Colonoscopy	**335**	**6,314**	**5.3%**	**493**	**6,811**	**7.2%**	**51**	**484**	**10.5%**	**18**	**207**	**8.7%**	**887**	**13,816**	**6.4%**

Table 4.20.6. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol (Endoscopy)

Detection rate of colorectal cancers (/1000)

Numerator (N) = Colorectal cancers detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Member state, Gender, Screening test	50-59 years			60-69 years			70-74 years			75-79 years			Total		
	N	D	‰	N	D	‰	N	D	‰	N	D	‰	N	D	‰
Italy Piedmont, Women, Sigmoidoscopy	14	5,567	**2.51**										14	5,567	**2.51**
Italy Piedmont, Men, Sigmoidoscopy	25	6,543	**3.82**										25	6,543	**3.82**
Total Sigmoidoscopy	**39**	**12,110**	**3.22**										**39**	**12,110**	**3.22**
Czech Republic, Women, Colonoscopy	4	727	**5.50**	7	1,142	**6.13**	4	241	**16.60**	1	108	**9.26**	16	2,218	**7.21**
Czech Republic, Men, Colonoscopy	6	810	**7.41**	13	1,134	**11.46**	2	243	**8.23**	4	99	**40.40**	25	2,286	**10.94**
Poland, Women, Colonoscopy	8	2,402	**3.33**	14	2,365	**5.92**							22	4,767	**4.62**
Poland, Men, Colonoscopy	8	2,375	**3.37**	21	2,170	**9.68**							29	4,545	**6.38**
Total Colonoscopy	**26**	**6,314**	**4.12**	**55**	**6,811**	**8.08**	**6**	**484**	**12.40**	**5**	**207**	**24.15**	**92**	**13,816**	**6.66**

Table 4.21.1. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

Screen positivity (indication for follow-up colonoscopy) rate (%)

Overall = Initial + subsequent screening

Numerator (N) = Positive screening tests in the year

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	294	9,014	**3.3%**	377	9,794	**3.8%**	118	2,762	**4.3%**				789	21,570	**3.7%**	
	Belgium Wallonia + Brussels, Men	333	8,223	**4.0%**	391	8,444	**4.6%**	112	2,382	**4.7%**				836	19,049	**4.4%**	
	Finland, Women				734	33,316	**2.2%**							734	33,316	**2.2%**	
	Finland, Men				994	25,934	**3.8%**							994	25,934	**3.8%**	
	France, Women	9,601	567,537	**1.7%**	10,851	530,557	**2.0%**	4,269	175,409	**2.4%**				24,721	1,273,503	**1.9%**	
	France, Men	10,742	464,680	**2.3%**	11,697	435,970	**2.7%**	4,415	142,100	**3.1%**				26,854	1,042,750	**2.6%**	
	Sweden Stockholm Gotland, Women				1,053	36,491	**2.9%**							1,053	36,491	**2.9%**	
	Sweden Stockholm Gotland, Men				1,246	28,571	**4.4%**							1,246	28,571	**4.4%**	
	UK England, Women				12,590	906,606	**1.4%**	4,223	243,996	**1.7%**				16,813	1,150,602	**1.5%**	
	UK England, Men				17,114	800,172	**2.1%**	5,770	220,255	**2.6%**				22,884	1,020,427	**2.2%**	
	UK Scotland, Women	1,473	114,173	**1.3%**	1,789	104,497	**1.7%**	814	41,272	**2.0%**	209	1,285	**16.3%**	4,285	261,227	**1.6%**	
	UK Scotland, Men	2,033	101,622	**2.0%**	2,559	93,034	**2.8%**	1,062	34,366	**3.1%**	232	1,282	**18.1%**	5,886	230,304	**2.6%**	
	UK Wales, Women				778	53,129	**1.5%**	387	19,251	**2.0%**				1,165	72,380	**1.6%**	
	UK Wales, Men				1,269	45,922	**2.8%**	571	17,466	**3.3%**				1,840	63,388	**2.9%**	
	Total Women	**11,368**	**690,724**	**1.6%**	**28,172**	**1,674,390**	**1.7%**	**9,811**	**482,690**	**2.0%**				**49,560**	**2,849,089**	**1.7%**	
	Total Men	**13,108**	**574,525**	**2.3%**	**35,270**	**1,438,047**	**2.5%**	**11,930**	**416,569**	**2.9%**				**60,540**	**2,430,423**	**2.5%**	
FIT	Belgium Flemish region, Women	2,948	33,025	**8.9%**	5,732	94,168	**6.1%**	1,880	36,807	**5.1%**				10,560	164,000	**6.4%**	*1*
	Belgium Flemish region, Men	4,081	29,259	**13.9%**	8,531	90,058	**9.5%**	2,701	34,203	**7.9%**				15,313	153,520	**10.0%**	*1*
	Czech Republic, Women	6,400	119,189	**5.4%**	8,547	129,721	**6.6%**	3,111	41,651	**7.5%**	2,006	24,976	**8.0%**	20,064	315,537	**6.4%**	
	Czech Republic, Men	6,560	85,428	**7.7%**	8,565	90,206	**9.5%**	2,956	29,124	**10.1%**	1,625	15,414	**10.5%**	19,706	220,172	**9.0%**	
	France Calvados, Women	177	5,673	**3.1%**	160	5,801	**2.8%**	57	1,981	**2.9%**				394	13,455	**2.9%**	
	France Calvados, Men	146	4,392	**3.3%**	156	4,297	**3.6%**	80	1,464	**5.5%**				382	10,153	**3.8%**	
	Hungary, Women	154	2,307	**6.7%**	164	2,143	**7.7%**							318	4,450	**7.1%**	
	Hungary, Men	215	1,795	**12.0%**	236	1,621	**14.6%**							451	3,416	**13.2%**	
	Italy, Women	18,528	530,280	**3.5%**	25,113	532,458	**4.7%**							43,641	1,062,738	**4.1%**	
	Italy, Men	20,955	447,464	**4.7%**	30,129	459,329	**6.6%**							51,084	906,793	**5.6%**	
	Lithuania, Women	3,345	69,212	**4.8%**	3,548	55,679	**6.4%**	1,566	21,196	**7.4%**				8,459	146,087	**5.8%**	
	Lithuania, Men	3,874	44,699	**8.7%**	3,421	31,887	**10.7%**	1,299	11,584	**11.2%**				8,594	88,170	**9.7%**	
	Netherlands Women				9,273	189,432	**4.9%**				7,348	80,347	**9.1%**	16,621	269,779	**6.2%**	
	Netherlands Men				14,378	181,983	**7.9%**				9,843	72,373	**13.6%**	24,221	254,356	**9.5%**	
	Slovenia, Women	3403	79937	**4.3%**	3145	58766	**5.4%**							6,548	138,703	**4.7%**	
	Slovenia, Men	4,427	65,695	**6.7%**	4,172	47,550	**8.8%**							8,599	113,245	**7.6%**	
	Spain, Women	5,584	126,358	**4.4%**	7,051	115,171	**6.1%**							12,635	241,529	**5.2%**	
	Spain, Men	7,786	109,270	**7.1%**	9,580	98,160	**9.8%**							17,366	207,430	**8.4%**	
	Total Women	**40,539**	**965,981**	**4.2%**	**62,733**	**1,183,339**	**5.3%**	**6,614**	**101,635**	**6.5%**	**9,354**	**105,323**	**8.9%**	**119,240**	**2,356,278**	**5.1%**	
	Total Men	**48,044**	**788,002**	**6.1%**	**79,168**	**1,005,091**	**7.9%**	**7,036**	**76,375**	**9.2%**	**11,468**	**87,787**	**13.1%**	**145,716**	**1,957,255**	**7.4%**	
Endoscopy	Italy Piedmont, Women, Sigmoidoscopy	496	5,567	**8.9%**										496	5,567	**8.9%**	
	Italy Piedmont, Men, Sigmoidoscopy	833	5,996	**13.9%**										833	5,996	**13.9%**	

Notes

1) First target age group is 56-59

Table 4.21.2. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

Follow-up colonoscopy participation rate (%)

Overall = Initial + subsequent screening

Numerator (N) = Further colonoscopy performed

Denominator (D) = Data on further colonoscopy performance available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	218	294	**74.1%**	282	377	**74.8%**	74	118	**62.7%**				574	789	**72.8%**	
	Belgium Wallonia + Brussels, Men	232	333	**69.7%**	293	391	**74.9%**	80	112	**71.4%**				605	836	**72.4%**	
	Finland, Women				581	730	**79.6%**							581	730	**79.6%**	
	Finland, Men				801	984	**81.4%**							801	984	**81.4%**	
	France, Women	8,041	9,601	**83.8%**	9,309	10,851	**85.8%**	3,588	4,269	**84.0%**				20,938	24,721	**84.7%**	
	France, Men	8,894	10,742	**82.8%**	9,868	11,697	**84.4%**	3,628	4,415	**82.2%**				22,390	26,854	**83.4%**	
	Sweden Stockholm Gotland, Women				933	1,053	**88.6%**							933	1,053	**88.6%**	
	Sweden Stockholm Gotland, Men				1,123	1,246	**90.1%**							1,123	1,246	**90.1%**	
	UK England, Women				10,546	12,590	**83.8%**	3,350	4,223	**79.3%**				13,896	16,813	**82.7%**	
	UK England, Men				14,542	17,114	**85.0%**	4,678	5,770	**81.1%**				19,220	22,884	**84.0%**	
	UK Scotland, Women	1,189	1,422	**83.6%**	1,409	1,712	**82.3%**	622	774	**80.4%**	156	197	**79.2%**	3,376	4,105	**82.2%**	
	UK Scotland, Men	1,686	1,980	**85.2%**	2,046	2,481	**82.5%**	806	1,008	**80.0%**	184	226	**81.4%**	4,722	5,695	**82.9%**	
	UK Wales, Women				642	778	**82.5%**	308	387	**79.6%**				950	1,165	**81.5%**	
	UK Wales, Men				1,078	1,269	**84.9%**	454	571	**79.5%**				1,532	1,840	**83.3%**	
	Total Women	**9,448**	**11,317**	**83.5%**	**23,702**	**28,091**	**84.4%**	**7,942**	**9,771**	**81.3%**	**156**	**197**	**79.2%**	**41,248**	**49,376**	**83.5%**	
	Total Men	**10,812**	**13,055**	**82.8%**	**29,751**	**35,182**	**84.6%**	**9,646**	**11,876**	**81.2%**	**184**	**226**	**81.4%**	**50,393**	**60,339**	**83.5%**	
FIT	Belgium Flemish region, Women													3,752	10,560	**35.5%**	*2*
	Belgium Flemish region, Men													5,640	15,313	**36.8%**	*2*
	Czech Republic, Women	3,603	6,400	**56.3%**	4,542	8,547	**53.1%**	1,509	3,111	**48.5%**	835	2,006	**41.6%**	10,489	20,064	**52.3%**	
	Czech Republic, Men	3,871	6,560	**59.0%**	4,540	8,565	**53.0%**	1,422	2,956	**48.1%**	692	1,625	**42.6%**	10,525	19,706	**53.4%**	
	France Calvados, Women	156	177	**88.1%**	143	160	**89.4%**	48	57	**84.2%**				347	394	**88.1%**	
	France Calvados, Men	130	146	**89.0%**	133	156	**85.3%**	71	80	**88.8%**				334	382	**87.4%**	
	Hungary, Women	103	154	**66.9%**	102	164	**62.2%**							205	318	**64.5%**	
	Hungary, Men	125	215	**58.1%**	164	236	**69.5%**							289	451	**64.1%**	
	Italy, Women	14,751	18,528	**79.6%**	18,721	25,113	**74.5%**							33,472	43,641	**76.7%**	
	Italy, Men	17,004	20,955	**81.1%**	22,999	30,129	**76.3%**							40,003	51,084	**78.3%**	
	Lithuania, Women	1,671	3,345	**50.0%**	1,891	3,548	**53.3%**	794	1,566	**50.7%**				4,356	8,459	**51.5%**	
	Lithuania, Men	1,751	3,874	**45.2%**	1,648	3,421	**48.2%**	628	1,299	**48.3%**				4,027	8,594	**46.9%**	
	Netherlands Women				7,213	9,032	**77.8%**				5,596	7,332	**76.2%**	12,809	16,364	**77.1%**	
	Netherlands Men				11,447	13,939	**79.7%**				7,503	9,815	**76.2%**	18,950	23,754	**78.3%**	
	Slovenia, Women	3,177	3,403	**93.4%**	2,899	3,145	**92.2%**							6,076	6,548	**92.8%**	
	Slovenia, Men	4,102	4,427	**92.7%**	3,791	4,172	**90.9%**							7,893	8,599	**91.8%**	
	Spain, Women	5,156	5,584	**92.3%**	6,357	7,051	**90.2%**							11,513	12,635	**91.1%**	
	Spain, Men	7,030	7,786	**90.3%**	8,664	9,580	**90.4%**							15,694	17,366	**90.4%**	
	Total Women	**28,617**	**37,591**	**76.1%**	**41,868**	**56,760**	**73.8%**	**2,351**	**4,734**	**49.7%**	**6,431**	**9,338**	**68.9%**	**83,019**	**118,983**	**69.8%**	
	Total Men	**34,013**	**43,963**	**77.4%**	**53,386**	**70,198**	**76.1%**	**2,121**	**4,335**	**48.9%**	**8,195**	**11,440**	**71.6%**	**103,355**	**145,249**	**71.2%**	
Endoscopy	Italy Piedmont, Women, Sigmoidoscopy	391	496	**78.8%**										391	496	**78.8%**	
	Italy Piedmont, Men, Sigmoidoscopy	702	833	**84.3%**										702	833	**84.3%**	

Notes

2) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

Table 4.21.3. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

Completion rate of follow-up colonoscopy (%)

Overall = Initial + subsequent screening

Numerator (N) = Follow-up colonoscopy completed

Denominator (D) = Data on completion of follow-up colonoscopy available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	203	218	**93.1%**	260	282	**92.2%**	67	74	**90.5%**				530	574	**92.3%**	
	Belgium Wallonia + Brussels, Men	207	232	**89.2%**	265	293	**90.4%**	71	80	**88.8%**				543	605	**89.8%**	
	Finland, Women																*3*
	Finland, Men																*3*
	France, Women	7,518	7,670	**98.0%**	8,693	8,922	**97.4%**	3,310	3,429	**96.5%**				19,521	20,021	**97.5%**	
	France, Men	8,402	8,537	**98.4%**	9,214	9,450	**97.5%**	3,351	3,469	**96.6%**				20,967	21,456	**97.7%**	
	Sweden Stockholm Gotland, Women				884	933	**94.7%**							884	933	**94.7%**	
	Sweden Stockholm Gotland, Men				1,070	1,123	**95.3%**							1,070	1,123	**95.3%**	
	UK England, Women																*3*
	UK England, Men																*3*
	UK Scotland, Women	1,138	1,189	**95.7%**	1,319	1,409	**93.6%**	578	622	**92.9%**	149	156	**95.5%**	3,184	3,376	**94.3%**	
	UK Scotland, Men	1,641	1,686	**97.3%**	1,973	2,046	**96.4%**	785	806	**97.4%**	176	184	**95.7%**	4,575	4,722	**96.9%**	
	UK Wales, Women				593	623	**95.2%**	278	298	**93.3%**				871	921	**94.6%**	*4*
	UK Wales, Men				1,011	1,045	**96.7%**	425	443	**95.9%**				1,436	1,488	**96.5%**	*5*
	Total Women	**8,859**	**9,077**	**97.6%**	**11,749**	**12,169**	**96.5%**	**4,233**	**4,423**	**95.7%**	**149**	**156**	**95.5%**	**24,990**	**25,825**	**96.8%**	
	Total Men	**10,250**	**10,455**	**98.0%**	**13,533**	**13,957**	**97.0%**	**4,632**	**4,798**	**96.5%**	**176**	**184**	**95.7%**	**28,591**	**29,394**	**97.3%**	
FIT	Belgium Flemish region, Women													3,683	3,752	**98.2%**	
	Belgium Flemish region, Men													5,571	5,640	**98.8%**	
	Czech Republic, Women	3,455	3,603	**95.9%**	4,334	4,542	**95.4%**	1,430	1,509	**94.8%**	781	835	**93.5%**	10,000	10,489	**95.3%**	
	Czech Republic, Men	3,799	3,871	**98.1%**	4,415	4,540	**97.2%**	1,378	1,422	**96.9%**	667	692	**96.4%**	10,259	10,525	**97.5%**	
	France Calvados, Women	145	156	**92.9%**	131	143	**91.6%**	46	48	**95.8%**				322	346	**93.1%**	
	France Calvados, Men	125	130	**96.2%**	124	133	**93.2%**	64	71	**90.1%**				313	332	**94.3%**	
	Hungary, Women																*3*
	Hungary, Men																*3*
	Italy, Women	13,445	14,751	**91.1%**	16,971	18,721	**90.7%**							30,416	33,472	**90.9%**	
	Italy, Men	15,804	17,004	**92.9%**	21,700	22,999	**94.4%**							37,504	40,003	**93.8%**	
	Lithuania, Women																
	Lithuania, Men																
	Netherlands Women																*3*
	Netherlands Men																*3*
	Slovenia, Women	3,123	3,177	**98.3%**	2,857	2,899	**98.6%**							5,980	6,076	**98.4%**	
	Slovenia, Men	4,071	4,102	**99.2%**	3,746	3,791	**98.8%**							7,817	7,893	**99.0%**	
	Spain, Women	4,744	5,156	**92.0%**	5,840	6,357	**91.9%**							10,584	11,513	**91.9%**	
	Spain, Men	6,647	7,030	**94.6%**	8,017	8,664	**92.5%**							14,664	15,694	**93.4%**	
	Total Women	**24,912**	**26,843**	**92.8%**	**30,133**	**32,662**	**92.3%**	**1,476**	**1,557**	**94.8%**	**781**	**835**	**93.5%**	**60,985**	**65,648**	**92.9%**	
	Total Men	**30,446**	**32,137**	**94.7%**	**38,002**	**40,127**	**94.7%**	**1,442**	**1,493**	**96.6%**	**667**	**692**	**96.4%**	**76,128**	**80,087**	**95.1%**	
Endoscopy	Italy Piedmont, Women, Sigmoidoscopy	369	391	**94.4%**										369	391	**94.4%**	
	Italy Piedmont, Men, Sigmoidoscopy	670	702	**95.4%**										670	702	**95.4%**	
	Poland, Women, Colonoscopy	2,311	2,402	**96.2%**	2,276	2,365	**96.2%**							4,587	4,767	**96.2%**	
	Poland, Men, Colonoscopy	2,326	2,375	**97.9%**	2,107	2,170	**97.1%**							4,433	4,545	**97.5%**	
	Czech Republic, Women, Colonoscopy	698	727	**96.0%**	1,109	1,142	**97.1%**	228	241	**94.6%**	104	108	**96.3%**	2,139	2,218	**96.4%**	
	Czech Republic, Men, Colonoscopy	805	810	**99.4%**	1,119	1,134	**98.7%**	236	243	**97.1%**	96	99	**97.0%**	2,256	2,286	**98.7%**	

Notes

3) Data not available

4) Completion status not reported in 29 cases

5) Completion status not reported in 44 cases

Table 4.21.4. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

Detection rate of adenomas (%)

Overall = Initial + subsequent screening

Numerator (N) = Adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	70	9,014	0.8%	99	9,794	1.0%	28	2,762	1.0%				197	21,570	0.9%	
	Belgium Wallonia + Brussels, Men	99	8,223	1.2%	125	8,444	1.5%	39	2,382	1.6%				263	19,049	1.4%	
	Finland, Women				145	33,316	0.4%							145	33,316	0.4%	
	Finland, Men				270	25,934	1.0%							270	25,934	1.0%	
	France, Women	1,791	567,537	0.3%	2,562	530,557	0.5%	1,060	175,409	0.6%				5,413	1,273,503	0.4%	
	France, Men	3,284	464,680	0.7%	4,289	435,970	1.0%	1,578	142,100	1.1%				9,151	1,042,750	0.9%	
	Sweden Stockholm Gotland, Women				173	36,491	0.5%							173	36,491	0.5%	
	Sweden Stockholm Gotland, Men				317	28,571	1.1%							317	28,571	1.1%	
	UK England, Women				3,234	906,606	0.4%	1,137	243,996	0.5%				4,371	1,150,602	0.4%	
	UK England, Men				5,533	800,172	0.7%	1,759	220,255	0.8%				7,292	1,020,427	0.7%	
	UK Scotland, Women	289	114,173	0.3%	462	104,497	0.4%	203	41,272	0.5%	56	1,285	4.4%	1,010	261,227	0.4%	
	UK Scotland, Men	647	101,622	0.6%	938	93,034	1.0%	364	34,366	1.1%	99	1,282	7.7%	2,048	230,304	0.9%	
	UK Wales, Women				131	53,129	0.2%	49	19,251	0.3%				180	72,380	0.2%	
	UK Wales, Men				285	45,922	0.6%	100	17,466	0.6%				385	63,388	0.6%	
	Total Women	**2,150**	**690,724**	**0.3%**	**6,806**	**1,674,390**	**0.4%**	**2,477**	**482,690**	**0.5%**	**56**	**1,285**	**4.4%**	**11,489**	**2,849,089**	**0.4%**	
	Total Men	**4,030**	**574,525**	**0.7%**	**11,757**	**1,438,047**	**0.8%**	**3,840**	**416,569**	**0.9%**	**99**	**1,282**	**7.7%**	**19,726**	**2,430,423**	**0.8%**	
FIT	Belgium Flemish region, Women																*2*
	Belgium Flemish region, Men																*2*
	Czech Republic, Women	898	119,189	0.8%	1,443	129,721	1.1%	555	41,651	1.3%	286	24,976	1.1%	3,182	315,537	1.0%	
	Czech Republic, Men	1,652	85,428	1.9%	2,308	90,206	2.6%	728	29,124	2.5%	334	15,414	2.2%	5,022	220,172	2.3%	
	France Calvados, Women	44	5,673	0.8%	46	5,801	0.8%	22	1,981	1.1%				112	13,455	0.8%	
	France Calvados, Men	45	4,392	1.0%	61	4,297	1.4%	37	1,464	2.5%				143	10,153	1.4%	
	Hungary, Women	44	2,307	1.9%	45	2,143	2.1%							89	4,450	2.0%	
	Hungary, Men	64	1,795	3.6%	99	1,621	6.1%							163	3,416	4.8%	
	Italy, Women	4,161	530,280	0.8%	6,198	532,458	1.2%							10,359	1,062,738	1.0%	
	Italy, Men	7,025	447,464	1.6%	10,579	459,329	2.3%							17,604	906,793	1.9%	
	Lithuania, Women																*3*
	Lithuania, Men																*3*
	Netherlands Women				3,868	189,432	2.0%				2,925	80,347	3.6%	6,793	269,779	2.5%	
	Netherlands Men				7,230	181,983	4.0%				4,623	72,373	6.4%	11,853	254,356	4.7%	
	Slovenia, Women	1,121	79,937	1.4%	1,244	58,766	2.1%							2,365	138,703	1.7%	
	Slovenia, Men	2,336	65,695	3.6%	2,390	47,550	5.0%							4,726	113,245	4.2%	
	Spain, Women	2,100	126,358	1.7%	2,928	115,171	2.5%							5,028	241,529	2.1%	
	Spain, Men	4,401	109,270	4.0%	5,585	98,160	5.7%							9,986	207,430	4.8%	
	Total Women	**8,368**	**863,744**	**1.0%**	**15,772**	**1,033,492**	**1.5%**	**577**	**43,632**	**1.3%**	**3,211**	**105,323**	**3.0%**	**27,928**	**2,046,191**	**1.4%**	
	Total Men	**15,523**	**714,044**	**2.2%**	**28,252**	**883,146**	**3.2%**	**765**	**30,588**	**2.5%**	**4,957**	**87,787**	**5.6%**	**49,497**	**1,715,565**	**2.9%**	
Endoscopy	Italy Piedmont, Women, Sigmoidoscopy	468	5,567	8.4%										468	5,567	8.4%	
	Italy Piedmont, Men, Sigmoidoscopy	954	5,996	15.9%										954	5,996	15.9%	
	Poland, Women, Colonoscopy	477	2,402	19.9%	522	2,365	22.1%							999	4,767	21.0%	
	Poland, Men, Colonoscopy	786	2,375	33.1%	833	2,170	38.4%							1,619	4,545	35.6%	
	Czech Republic, Women, Colonoscopy	124	727	17.1%	255	1,142	22.3%	66	241	27.4%	19	108	17.6%	464	2,218	20.9%	
	Czech Republic, Men, Colonoscopy	252	810	31.1%	420	1,134	37.0%	78	243	32.1%	35	99	35.4%	785	2,286	34.3%	

Notes

2) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

3) Data not available

Table 4.21.5. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

Detection rate of advanced adenomas (%)

Overall = Initial + subsequent screening

Numerator (N) = Advanced adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	25	9,014	**0.3%**	38	9,794	**0.4%**	8	2,762	**0.3%**				71	21,570	**0.3%**	
	Belgium Wallonia + Brussels, Men	43	8,223	**0.5%**	60	8,444	**0.7%**	14	2,382	**0.6%**				117	19,049	**0.6%**	
	Finland, Women				24	33,316	**0.1%**							24	33,316	**0.1%**	
	Finland, Men				32	25,934	**0.1%**							32	25,934	**0.1%**	
	France, Women	999	567,537	**0.2%**	1,439	530,557	**0.3%**	585	175,409	**0.3%**				3,023	1,273,503	**0.2%**	
	France, Men	1,950	464,680	**0.4%**	2,638	435,970	**0.6%**	952	142,100	**0.7%**				5,540	1,042,750	**0.5%**	
	Sweden Stockholm Gotland, Women				52	36,491	**0.1%**							52	36,491	**0.1%**	
	Sweden Stockholm Gotland, Men				122	28,571	**0.4%**							122	28,571	**0.4%**	
	UK England, Women				644	906,606	**0.1%**	243	243,996	**0.1%**				887	1,150,602	**0.1%**	
	UK England, Men				1,721	800,172	**0.2%**	712	220,255	**0.3%**				2,433	1,020,427	**0.2%**	
	UK Scotland, Women	28	114,173	**0.0%**	33	104,497	**0.0%**	15	41,272	**0.0%**	7	1,285	**0.5%**	83	261,227	**0.0%**	
	UK Scotland, Men	79	101,622	**0.1%**	160	93,034	**0.2%**	68	34,366	**0.2%**	15	1,282	**1.2%**	322	230,304	**0.1%**	
	UK Wales, Women																*3*
	UK Wales, Men																*3*
	Total Women	**1,052**	**690,724**	**0.2%**	**2,230**	**1,621,261**	**0.1%**	**851**	**463,439**	**0.2%**	**7**	**1,285**	**0.5%**	**4,140**	**2,776,709**	**0.1%**	
	Total Men	**2,072**	**574,525**	**0.4%**	**4,733**	**1,392,125**	**0.3%**	**1,746**	**399,103**	**0.4%**	**15**	**1,282**	**1.2%**	**8,566**	**2,367,035**	**0.4%**	
FIT	Belgium Flemish region, Women																*2*
	Belgium Flemish region, Men																*2*
	Czech Republic, Women	386	119,189	**0.3%**	619	129,721	**0.5%**	254	41,651	**0.6%**	138	24,976	**0.6%**	1,397	315,537	**0.4%**	
	Czech Republic, Men	764	85,428	**0.9%**	1,152	90,206	**1.3%**	361	29,124	**1.2%**	153	15,414	**1.0%**	2,430	220,172	**1.1%**	
	France Calvados, Women	28	5,673	**0.5%**	23	5,801	**0.4%**	11	1,981	**0.6%**				62	13,455	**0.5%**	
	France Calvados, Men	26	4,392	**0.6%**	36	4,297	**0.8%**	20	1,464	**1.4%**				82	10,153	**0.8%**	
	Hungary, Women																*3*
	Hungary, Men																*3*
	Italy, Women	2,167	530,280	**0.4%**	3,114	532,458	**0.6%**							5,281	1,062,738	**0.5%**	
	Italy, Men	3,726	447,464	**0.8%**	5,484	459,329	**1.2%**							9,210	906,793	**1.0%**	
	Lithuania, Women																*3*
	Lithuania, Men																*3*
	Netherlands Women				2,529	189,432	**1.3%**				1,740	80,347	**2.2%**	4,269	269,779	**1.6%**	
	Netherlands Men				4,891	181,983	**2.7%**				2,870	72,373	**4.0%**	7,761	254,356	**3.1%**	
	Slovenia, Women	658	79937	**0.8%**	716	58766	**1.2%**							1,374	138,703	**1.0%**	
	Slovenia, Men	1,467	65,695	**2.2%**	1,524	47,550	**3.2%**							2,991	113,245	**2.6%**	
	Spain, Women	1,324	126,358	**1.0%**	1,810	115,171	**1.6%**							3,134	241,529	**1.3%**	
	Spain, Men	3,101	109,270	**2.8%**	4,060	98,160	**4.1%**							7,161	207,430	**3.5%**	
	Total Women	**4,563**	**861,437**	**0.5%**	**6,282**	**841,917**	**0.7%**	**265**	**43,632**	**0.6%**	**1,878**	**105,323**	**1.8%**	**15,517**	**2,041,741**	**0.8%**	
	Total Men	**9,084**	**712,249**	**1.3%**	**12,256**	**699,542**	**1.8%**	**381**	**30,588**	**1.2%**	**3,023**	**87,787**	**3.4%**	**29,635**	**1,712,149**	**1.7%**	
Endoscopy	Italy Piedmont, Women, Sigmoidoscopy	165	5,567	**3.0%**										165	5,567	**3.0%**	
	Italy Piedmont, Men, Sigmoidoscopy	385	5,996	**6.4%**										385	5,996	**6.4%**	
	Poland, Women, Colonoscopy	83	2,402	**3.5%**	100	2,365	**4.2%**							183	4,767	**3.8%**	
	Poland, Men, Colonoscopy	154	2,375	**6.5%**	196	2,170	**9.0%**							350	4,545	**7.7%**	
	Czech Republic, Women, Colonoscopy	25	727	**3.4%**	69	1,142	**6.0%**	23	241	**9.5%**	7	108	**6.5%**	124	2,218	**5.6%**	
	Czech Republic, Men, Colonoscopy	73	810	**9.0%**	128	1,134	**11.3%**	28	243	**11.5%**	11	99	**11.1%**	240	2,286	**10.5%**	

Notes

2) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

3) Data not available

Table 4.21.6. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

Detection rate of colorectal cancers (/1000)

Overall = Initial + subsequent screening

Numerator (N) = Colorectal cancers detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	‰	N	D	‰	N	D	‰	N	D	‰	N	D	‰	
gFOBT	**Belgium Wallonia + Brussels, Women**	9	9,014	**1.00**	20	9,794	**2.04**	7	2,762	**2.53**				36	21,570	**1.67**	
	Belgium Wallonia + Brussels, Men	8	8,223	**0.97**	27	8,444	**3.20**	8	2,382	**3.36**				43	19,049	**2.26**	
	Finland, Women				19	33,316	**0.57**							19	33,316	**0.57**	
	Finland, Men				34	25,934	**1.31**							34	25,934	**1.31**	
	France, Women	251	567,537	**0.44**	422	530,557	**0.80**	233	175,409	**1.33**				906	1,273,503	**0.71**	
	France, Men	391	464,680	**0.84**	774	435,970	**1.78**	377	142,100	**2.65**				1,542	1,042,750	**1.48**	
	Sweden Stockholm Gotland, Women				29	36,491	**0.79**							29	36,491	**0.79**	
	Sweden Stockholm Gotland, Men				38	28,571	**1.33**							38	28,571	**1.33**	
	UK England, Women				679	906,606	**0.75**	298	243,996	**1.22**				977	1,150,602	**0.85**	
	UK England, Men				1,295	800,172	**1.62**	579	220,255	**2.63**				1,874	1,020,427	**1.84**	
	UK Scotland, Women	54	114,173	**0.47**	88	104,497	**0.84**	69	41,272	**1.67**	13	1,285	**10.12**	224	261,227	**0.86**	
	UK Scotland, Men	87	101,622	**0.86**	155	93,034	**1.67**	81	34,366	**2.36**	13	1,282	**10.14**	336	230,304	**1.46**	
	UK Wales, Women				38	53,129	**0.72**	26	19,251	**1.35**				64	72,380	**0.88**	
	UK Wales, Men				86	45,922	**1.87**	45	17,466	**2.58**				131	63,388	**2.07**	
	Total Women	**314**	**690,724**	**0.45**	**1,295**	**1,674,390**	**0.77**	**633**	**482,690**	**1.31**	**13**	**1,285**	**10.12**	**2,255**	**2,849,089**	**0.79**	
	Total Men	**486**	**574,525**	**0.85**	**2,409**	**1,438,047**	**1.68**	**1,090**	**416,569**	**2.62**	**13**	**1,282**	**10.14**	**3,998**	**2,430,423**	**1.64**	
FIT	**Belgium Flemish region, Women**																*2*
	Belgium Flemish region, Men																*2*
	Czech Republic, Women	43	119,189	**0.36**	113	129,721	**0.87**	46	41,651	**1.10**	39	24,976	**1.56**	241	315,537	**0.76**	
	Czech Republic, Men	79	85,428	**0.92**	172	90,206	**1.91**	84	29,124	**2.88**	56	15,414	**3.63**	391	220,172	**1.78**	
	France Calvados, Women	7	5,673	**1.23**	6	5,801	**1.03**	5	1,981	**2.52**				18	13,455	**1.34**	
	France Calvados, Men	8	4,392	**1.82**	9	4,297	**2.09**	8	1,464	**5.46**				25	10,153	**2.46**	
	Hungary, Women	4	2,307	**0.2%**	5	2,143	**2.33**							9	4,450	**2.02**	
	Hungary, Men	7	1,795	**0.4%**	10	1,621	**6.17**							17	3,416	**4.98**	
	Italy, Women	382	530,280	**0.72**	661	532,458	**1.24**							1,043	1,062,738	**0.98**	
	Italy, Men	464	447,464	**1.04**	1,031	459,329	**2.24**							1,495	906,793	**1.65**	
	Lithuania, Women																*3*
	Lithuania, Men																*3*
	Netherlands Women				522	189,432	**2.76**				445	80,347	**5.54**	967	269,779	**3.58**	
	Netherlands Men				843	181,983	**4.63**				673	72,373	**9.30**	1,516	254,356	**5.96**	
	Slovenia, Women	75	79,937	**0.94**	104	58,766	**1.77**							179	138,703	**1.29**	
	Slovenia, Men	111	65,695	**1.69**	183	47,550	**3.85**							294	113,245	**2.60**	
	Spain, Women	192	126,358	**1.52**	265	115,171	**2.30**							457	241,529	**1.89**	
	Spain, Men	290	109,270	**2.65**	599	98,160	**6.10**							889	207,430	**4.29**	
	Total Women	**703**	**863,744**	**0.81**	**1,154**	**844,060**	**1.37**	**51**	**43,632**	**1.17**	**484**	**105,323**	**4.60**	**2,914**	**2,046,191**	**1.42**	
	Total Men	**959**	**714,044**	**1.34**	**2,004**	**701,163**	**2.86**	**92**	**30,588**	**3.01**	**729**	**87,787**	**8.30**	**4,627**	**1,715,565**	**2.70**	
Endoscopy	**Italy Piedmont, Women, Sigmoidoscopy**	14	5,567	**2.51**										14	5,567	**2.51**	
	Italy Piedmont, Men, Sigmoidoscopy	25	6,543	**3.82**										25	6,543	**3.82**	
	Poland, Women, Colonoscopy	8	2,402	**3.33**	14	2,365	**5.92**							22	4,767	**4.62**	
	Poland, Men, Colonoscopy	8	2,375	**3.37**	21	2,170	**9.68**							29	4,545	**6.38**	
	Czech Republic, Women, Colonoscopy	4	727	**5.50**	7	1,142	**6.13**	4	241	**16.60**	1	108	**9.26**	16	2,218	**7.21**	
	Czech Republic, Men, Colonoscopy	6	810	**7.41**	13	1,134	**11.46**	2	243	**8.23**	4	99	**40.40**	25	2,286	**10.94**	

Notes

2) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

3) Data not available

Table 4.21.7. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

PPV of adenomas (%)

Overall = Initial + subsequent screening

Numerator (N) = Adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	**Belgium Wallonia + Brussels, Women**	70	218	**32.1%**	99	282	**35.1%**	28	74	**37.8%**				197	574	**34.3%**	
	Belgium Wallonia + Brussels, Men	99	232	**42.7%**	125	293	**42.7%**	39	80	**48.8%**				263	605	**43.5%**	
	Finland, Women				145	581	**25.0%**							145	581	**25.0%**	
	Finland, Men				270	801	**33.7%**							270	801	**33.7%**	
	France, Women	1,791	8,041	**22.3%**	2,562	9,309	**27.5%**	1,060	3,588	**29.5%**				5,413	20,938	**25.9%**	
	France, Men	3,284	8,894	**36.9%**	4,289	9,868	**43.5%**	1,578	3,628	**43.5%**				9,151	22,390	**40.9%**	
	Sweden Stockholm Gotland, Women				173	933	**18.5%**							173	933	**18.5%**	
	Sweden Stockholm Gotland, Men				317	1,123	**28.2%**							317	1,123	**28.2%**	
	UK England, Women				3,234	10,546	**30.7%**	1,137	3,350	**33.9%**				4,371	13,896	**31.5%**	
	UK England, Men				5,533	14,542	**38.0%**	1,759	4,678	**37.6%**				7,292	19,220	**37.9%**	
	UK Scotland, Women	289	1,189	**24.3%**	462	1,409	**32.8%**	203	622	**32.6%**	56	156	**35.9%**	1,010	3,376	**29.9%**	
	UK Scotland, Men	647	1,686	**38.4%**	938	2,046	**45.8%**	364	806	**45.2%**	99	184	**53.8%**	2,048	4,722	**43.4%**	
	UK Wales, Women				131	642	**20.4%**	49	308	**15.9%**				180	950	**18.9%**	
	UK Wales, Men				285	1,078	**26.4%**	100	454	**22.0%**				385	1,532	**25.1%**	
	Total Women	**2,150**	**9,448**	**22.8%**	**6,806**	**23,702**	**28.7%**	**2,477**	**7,942**	**31.2%**	**56**	**156**	**35.9%**	**11,489**	**41,248**	**27.9%**	
	Total Men	**4,030**	**10,812**	**37.3%**	**11,757**	**29,751**	**39.5%**	**3,840**	**9,646**	**39.8%**	**99**	**184**	**53.8%**	**19,726**	**50,393**	**39.1%**	
FIT	**Belgium Flemish region, Women**																*2*
	Belgium Flemish region, Men																*2*
	Czech Republic, Women	898	3,603	**24.9%**	1,443	4,542	**31.8%**	555	1,509	**36.8%**	286	835	**34.3%**	3,182	10,489	**30.3%**	
	Czech Republic, Men	1,652	3,871	**42.7%**	2,308	4,540	**50.8%**	728	1,422	**51.2%**	334	692	**48.3%**	5,022	10,525	**47.7%**	
	France Calvados, Women	44	156	**28.2%**	46	143	**32.2%**	22	48	**45.8%**				112	347	**32.3%**	
	France Calvados, Men	45	130	**34.6%**	61	133	**45.9%**	37	71	**52.1%**				143	334	**42.8%**	
	Hungary, Women	44	83	**53.0%**	45	90	**50.0%**							89	173	**51.4%**	*6*
	Hungary, Men	64	108	**59.3%**	99	145	**68.3%**							163	253	**64.4%**	*7*
	Italy, Women	4,161	14,751	**28.2%**	6,198	18,721	**33.1%**							10,359	33,472	**30.9%**	
	Italy, Men	7,025	17,004	**41.3%**	10,579	22,999	**46.0%**							17,604	40,003	**44.0%**	
	Lithuania, Women																*3*
	Lithuania, Men																*3*
	Netherlands Women				3,868	7,213	**53.6%**				2,925	5,596	**52.3%**	6,793	12,809	**53.0%**	
	Netherlands Men				7,230	11,447	**63.2%**				4,623	7,503	**61.6%**	11,853	18,950	**62.5%**	
	Slovenia, Women	1,121	3,177	**35.3%**	1,244	2,899	**42.9%**							2,365	6,076	**38.9%**	
	Slovenia, Men	2,336	4,102	**56.9%**	2,390	3,791	**63.0%**							4,726	7,893	**59.9%**	
	Spain, Women	2,100	5,156	**40.7%**	2,928	6,357	**46.1%**							5,028	11,513	**43.7%**	
	Spain, Men	4,401	7,030	**62.6%**	5,585	8,664	**64.5%**							9,986	15,694	**63.6%**	
	Total Women	**8,368**	**26,926**	**31.1%**	**11,904**	**32,752**	**36.3%**	**577**	**1,557**	**37.1%**	**3,211**	**6,431**	**49.9%**	**27,928**	**74,879**	**37.3%**	
	Total Men	**15,523**	**32,245**	**48.1%**	**21,022**	**40,272**	**52.2%**	**765**	**1,493**	**51.2%**	**4,957**	**8,195**	**60.5%**	**49,497**	**93,652**	**52.9%**	

Notes

2) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

3) Data not available

6) Histology results not available for 32 subjects

7) Histology results not available for 36 subjects

Table 4.21.8. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

PPV of advanced adenomas (%)

Overall = Initial + subsequent screening

Numerator (N) = Advanced adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	25	218	**11.5%**	38	282	**13.5%**	8	74	**10.8%**				71	574	**12.4%**	
	Belgium Wallonia + Brussels, Men	43	232	**18.5%**	60	293	**20.5%**	14	80	**17.5%**				117	605	**19.3%**	
	Finland, Women				24	581	**4.1%**							24	581	**4.1%**	
	Finland, Men				32	801	**4.0%**							32	801	**4.0%**	
	France, Women	999	8,041	**12.4%**	1,439	9,309	**15.5%**	585	3,588	**16.3%**				3,023	20,938	**14.4%**	
	France, Men	1,950	8,894	**21.9%**	2,638	9,868	**26.7%**	952	3,628	**26.2%**				5,540	22,390	**24.7%**	
	Sweden Stockholm Gotland, Women				52	933	**5.6%**							52	933	**5.6%**	
	Sweden Stockholm Gotland, Men				122	1,123	**10.9%**							122	1,123	**10.9%**	
	UK England, Women				644	10,546	**6.1%**	243	3,350	**7.3%**				887	13,896	**6.4%**	
	UK England, Men				1,721	14,542	**11.8%**	712	4,678	**15.2%**				2,433	19,220	**12.7%**	
	UK Scotland, Women	28	1,189	**2.4%**	33	1,409	**2.3%**	15	622	**2.4%**	7	156	**4.5%**	83	3,376	**2.5%**	
	UK Scotland, Men	79	1,686	**4.7%**	160	2,046	**7.8%**	68	806	**8.4%**	15	184	**8.2%**	322	4,722	**6.8%**	
	UK Wales, Women																*3*
	UK Wales, Men																*3*
	Total Women	**1,052**	**9,448**	**11.1%**	**2,230**	**23,060**	**9.7%**	**851**	**7,634**	**11.1%**	**7**	**156**	**4.5%**	**4,140**	**40,298**	**10.3%**	
	Total Men	**2,072**	**10,812**	**19.2%**	**4,733**	**28,673**	**16.5%**	**1,746**	**9,192**	**19.0%**	**15**	**184**	**8.2%**	**8,566**	**48,861**	**17.5%**	
FIT	Belgium Flemish region, Women																*2*
	Belgium Flemish region, Men																*2*
	Czech Republic, Women	386	3,603	**10.7%**	619	4,542	**13.6%**	254	1,509	**16.8%**	138	835	**16.5%**	1,397	10,489	**13.3%**	
	Czech Republic, Men	764	3,871	**19.7%**	1,152	4,540	**25.4%**	361	1,422	**25.4%**	153	692	**22.1%**	2,430	10,525	**23.1%**	
	France Calvados, Women	28	156	**17.9%**	23	143	**16.1%**	11	48	**22.9%**				62	347	**17.9%**	
	France Calvados, Men	26	130	**20.0%**	36	133	**27.1%**	20	71	**28.2%**				82	334	**24.6%**	
	Hungary, Women																*3*
	Hungary, Men																*3*
	Italy, Women	2,167	14,751	**14.7%**	3,114	18,721	**16.6%**							5,281	33,472	**15.8%**	
	Italy, Men	3,726	17,004	**21.9%**	5,484	22,999	**23.8%**							9,210	40,003	**23.0%**	
	Lithuania, Women																*3*
	Lithuania, Men																*3*
	Netherlands Women				2,529	7,213	**35.1%**				1,740	5,596	**31.1%**	4,269	12,809	**33.3%**	
	Netherlands Men				4,891	11,447	**42.7%**				2,870	7,503	**38.3%**	7,761	18,950	**41.0%**	
	Slovenia, Women	658	3,177	**20.7%**	716	2,899	**24.7%**							1,374	6,076	**22.6%**	
	Slovenia, Men	1,467	4,102	**35.8%**	1,524	3,791	**40.2%**							2,991	7,893	**37.9%**	
	Spain, Women	1,324	5,156	**25.7%**	1,810	6,357	**28.5%**							3,134	11,513	**27.2%**	
	Spain, Men	3,101	7,030	**44.1%**	4,060	8,664	**46.9%**							7,161	15,694	**45.6%**	
	Total Women	**4,563**	**26,843**	**17.0%**	**8,811**	**39,875**	**22.1%**	**265**	**1,557**	**17.0%**	**1,878**	**6,431**	**29.2%**	**15,517**	**74,706**	**20.8%**	
	Total Men	**9,084**	**32,137**	**28.3%**	**17,147**	**51,574**	**33.2%**	**381**	**1,493**	**25.5%**	**3,023**	**8,195**	**36.9%**	**29,635**	**93,399**	**31.7%**	

Notes

2) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

3) Data not available

Table 4.21.9. Colorectal cancer screening programmes in the EU – Other performance indicators by country, age, gender and screening protocol

PPV of colorectal cancers (%)

Overall = Initial + subsequent screening

Numerator (N) = Colorectal cancers detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	9	218	**4.1%**	20	282	**7.1%**	7	74	**9.5%**				36	574	**6.3%**	
	Belgium Wallonia + Brussels, Men	8	232	**3.4%**	27	293	**9.2%**	8	80	**10.0%**				43	605	**7.1%**	
	Finland, Women				19	581	**3.3%**							19	581	**3.3%**	
	Finland, Men				34	801	**4.2%**							34	801	**4.2%**	
	France, Women	251	8,041	**3.1%**	422	9,309	**4.5%**	233	3,588	**6.5%**				906	20,938	**4.3%**	
	France, Men	391	8,894	**4.4%**	774	9,868	**7.8%**	377	3,628	**10.4%**				1,542	22,390	**6.9%**	
	Sweden Stockholm Gotland, Women				29	933	**3.1%**							29	933	**3.1%**	
	Sweden Stockholm Gotland, Men				38	1,123	**3.4%**							38	1,123	**3.4%**	
	UK England, Women				679	10,546	**6.4%**	298	3,350	**8.9%**				977	13,896	**7.0%**	
	UK England, Men				1,295	14,542	**8.9%**	579	4,678	**12.4%**				1,874	19,220	**9.8%**	
	UK Scotland, Women	54	1,189	**4.5%**	88	1,409	**6.2%**	69	622	**11.1%**	13	156	**8.3%**	224	3,376	**6.6%**	
	UK Scotland, Men	87	1,686	**5.2%**	155	2,046	**7.6%**	81	806	**10.0%**	13	184	**7.1%**	336	4,722	**7.1%**	
	UK Wales, Women				38	642	**5.9%**	26	308	**8.4%**				64	950	**6.7%**	
	UK Wales, Men				86	1,078	**8.0%**	45	454	**9.9%**				131	1,532	**8.6%**	
	Total Women	**314**	**9,448**	**3.3%**	**1,295**	**23,702**	**5.5%**	**633**	**7,942**	**8.0%**	**13**	**156**	**8.3%**	**2,255**	**41,248**	**5.5%**	
	Total Men	**486**	**10,812**	**4.5%**	**2,409**	**29,751**	**8.1%**	**1,090**	**9,646**	**11.3%**	**13**	**184**	**7.1%**	**3,998**	**50,393**	**7.9%**	
FIT	Belgium Flemish region, Women																*2*
	Belgium Flemish region, Men																*2*
	Czech Republic, Women	43	3,603	**1.2%**	113	4,542	**2.5%**	46	1,509	**3.0%**	39	835	**4.7%**	241	10,489	**2.3%**	
	Czech Republic, Men	79	3,871	**2.0%**	172	4,540	**3.8%**	84	1,422	**5.9%**	56	692	**8.1%**	391	10,525	**3.7%**	
	France Calvados, Women	7	156	**4.5%**	6	143	**4.2%**	5	48	**10.4%**				18	347	**5.2%**	
	France Calvados, Men	8	130	**6.2%**	9	133	**6.8%**	8	71	**11.3%**				25	334	**7.5%**	
	Hungary, Women	4	83	**4.8%**	5	90	**5.6%**							9	173	**5.2%**	*6*
	Hungary, Men	7	108	**6.5%**	10	145	**6.9%**							17	253	**6.7%**	*7*
	Italy, Women	382	14,751	**2.6%**	661	18,721	**3.5%**							1,043	33,472	**3.1%**	
	Italy, Men	464	17,004	**2.7%**	1,031	22,999	**4.5%**							1,495	40,003	**3.7%**	
	Lithuania, Women																*3*
	Lithuania, Men																*3*
	Netherlands Women				522	7,213	**7.2%**				445	5,596	**8.0%**	967	12,809	**7.5%**	
	Netherlands Men				843	11,447	**7.4%**				673	7,503	**9.0%**	1,516	18,950	**8.0%**	
	Slovenia, Women	75	3,177	**2.4%**	104	2,899	**3.6%**							179	6,076	**2.9%**	
	Slovenia, Men	111	4,102	**2.7%**	183	3,791	**4.8%**							294	7,893	**3.7%**	
	Spain, Women	192	5,156	**3.7%**	265	6,357	**4.2%**							457	11,513	**4.0%**	
	Spain, Men	290	7,030	**4.1%**	599	8,664	**6.9%**							889	15,694	**5.7%**	
	Total Women	**703**	**26,926**	**2.6%**	**1,154**	**32,752**	**3.5%**	**51**	**1,557**	**3.3%**	**484**	**6,431**	**7.5%**	**2,914**	**74,879**	**3.9%**	
	Total Men	**959**	**32,245**	**3.0%**	**2,004**	**40,272**	**5.0%**	**92**	**1,493**	**6.2%**	**729**	**8,195**	**8.9%**	**4,627**	**93,652**	**4.9%**	

Notes

2) Follow-up data were not complete at the time of data collection. Updated data available at https://www.bevolkingsonderzoek.be/media_processed/files/Jaarrapport2015_DEF(met%20linken).pdf

3) Data not available

6) Histology results not available for 32 subjects

7) Histology results not available for 36 subjects

Table 4.22.1. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Screen positivity (indication for follow-up colonoscopy) rate (%)

Initial screening

Numerator (N) = Positive screening tests in the year

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	174	5,291	3.3%	149	3,508	4.2%	50	890	5.6%				373	9,689	3.8%	
	Belgium Wallonia + Brussels, Men	202	4,724	4.3%	164	2,967	5.5%	40	739	5.4%				406	8,430	4.8%	
	Finland, Women				175	8,945	2.0%							175	8,945	2.0%	
	Finland, Men				279	6,817	4.1%							279	6,817	4.1%	
	France, Women	4,194	230,962	1.8%	2,280	90,623	2.5%	675	23,891	2.8%				7,149	345,476	2.1%	
	France, Men	4,979	202,409	2.5%	2,721	82,427	3.3%	843	20,526	4.1%				8,543	305,362	2.8%	
	Sweden Stockholm Gotland, Women				646	22,341	2.9%							646	22,341	2.9%	
	Sweden Stockholm Gotland, Men				729	17,756	4.1%							729	17,756	4.1%	
	UK England, Women				3,946	236,958	1.7%	757	27,847	2.7%				4,703	264,805	1.8%	
	UK England, Men				5,735	220,172	2.6%	1,085	27,163	4.0%				6,820	247,335	2.8%	
	UK Scotland, Women	275	23,829	1.2%	9	796	1.1%	5	174	2.9%				289	24,799	1.2%	
	UK Scotland, Men	371	21,470	1.7%	19	874	2.2%	8	166	4.8%				398	22,510	1.8%	
	UK Wales, Women				236	13,423	1.8%	47	1,479	3.2%				283	14,902	1.9%	
	UK Wales, Men				390	12,620	3.1%	86	1,583	5.4%				476	14,203	3.4%	
	Total Women	**4,643**	**260,082**	**1.8%**	**7,441**	**376,594**	**2.0%**	**1,534**	**54,281**	**2.8%**				**13,618**	**690,957**	**2.0%**	
	Total Men	**5,552**	**228,603**	**2.4%**	**10,037**	**343,633**	**2.9%**	**2,062**	**50,177**	**4.1%**				**17,651**	**622,413**	**2.8%**	
	Total Women + Men	**10,195**	**488,685**	**2.1%**	**17,478**	**720,227**	**2.4%**	**3,596**	**104,458**	**3.4%**				**31,269**	**1,313,370**	**2.4%**	
FIT	France Calvados, Women	76	1,981	3.8%	21	671	3.1%	6	179	3.4%				103	2,831	3.6%	
	France Calvados, Men	75	1,690	4.4%	36	609	5.9%	7	157	4.5%				118	2,456	4.8%	
	Italy, Women	8,969	235,286	3.8%	8,119	134,188	6.1%							17,088	369,474	4.6%	
	Italy, Men	10,630	202,310	5.3%	10,769	122,455	8.8%							21,399	324,765	6.6%	
	Ireland, Women + Men				1,898	23,511	8.1%							1,898	23,511	8.1%	
	Malta, Women + Men				290	6,754	4.3%							290	6,754	4.3%	
	Netherlands, Women				9,273	189,432	4.9%				7,348	80,347	9.1%	16,621	269,779	6.2%	
	Netherlands, Men				14,368	181,983	7.9%				9,843	72,373	13.6%	24,211	254,356	9.5%	
	Slovenia, Women	1,446	30,267	4.8%	789	10,958	7.2%							2,235	41,225	5.4%	
	Slovenia, Men	2,199	27,458	8.0%	1,270	10,461	12.1%							3,469	37,919	9.1%	
	Spain, Women	3,713	78,929	4.7%	4,154	59,320	7.0%							7,867	138,249	5.7%	
	Spain, Men	5,488	69,600	7.9%	6,101	52,955	11.5%							11,589	122,555	9.5%	
	Total Women	**14,204**	**346,463**	**4.1%**	**22,356**	**394,569**	**5.7%**	**6**	**179**	**3.4%**	**7,348**	**80,347**	**9.1%**	**43,914**	**821,558**	**5.3%**	
	Total Men	**18,392**	**301,058**	**6.1%**	**32,544**	**368,463**	**8.8%**	**7**	**157**	**4.5%**	**9,843**	**72,373**	**13.6%**	**60,786**	**742,051**	**8.2%**	
	Total Women + Men	**32,596**	**647,521**	**5.0%**	**57,088**	**793,297**	**7.2%**	**13**	**336**	**3.9%**	**17,191**	**152,720**	**11.3%**	**106,888**	**1,593,874**	**6.7%**	

Table 4.22.2. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Follow-up colonoscopy participation rate (%)

Initial screening

Numerator (N) = Further colonoscopy performed

Denominator (D) = Data on further colonoscopy performance available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	121	174	**69.5%**	107	149	**71.8%**	26	50	**52.0%**				254	373	**68.1%**	
	Belgium Wallonia + Brussels, Men	138	202	**68.3%**	125	164	**76.2%**	26	40	**65.0%**				289	406	**71.2%**	
	Finland, Women				140	175	**80.0%**							140	175	**80.0%**	
	Finland, Men				234	278	**84.2%**							234	278	**84.2%**	
	France, Women	3,374	4,194	**80.4%**	1,840	2,280	**80.7%**	538	675	**79.7%**				5,752	7,149	**80.5%**	
	France, Men	3,902	4,979	**78.4%**	2,161	2,721	**79.4%**	657	843	**77.9%**				6,720	8,543	**78.7%**	
	Sweden Stockholm Gotland, Women				566	646	**87.6%**							566	646	**87.6%**	
	Sweden Stockholm Gotland, Men				646	729	**88.6%**							646	729	**88.6%**	
	UK England, Women				3,213	3,946	**81.4%**	562	757	**74.2%**				3,775	4,703	**80.3%**	
	UK England, Men				4,799	5,735	**83.7%**	820	1,085	**75.6%**				5,619	6,820	**82.4%**	
	UK Scotland, Women	214	265	**80.8%**	6	9	**66.7%**	4	5	**80.0%**				224	279	**80.3%**	
	UK Scotland, Men	314	366	**85.8%**	15	19	**78.9%**	8	8	**100.0%**				337	393	**85.8%**	
	UK Wales, Women				184	236	**78.0%**	35	47	**74.5%**				219	283	**77.4%**	
	UK Wales, Men				326	390	**83.6%**	63	86	**73.3%**				389	476	**81.7%**	
	Total Women	**3,709**	**4,633**	**80.1%**	**6,056**	**7,441**	**81.4%**	**1,165**	**1,534**	**75.9%**				**10,930**	**13,608**	**80.3%**	
	Total Men	**4,354**	**5,547**	**78.5%**	**8,306**	**10,036**	**82.8%**	**1,574**	**2,062**	**76.3%**				**14,234**	**17,645**	**80.7%**	
	Total Women + Men	**8,063**	**10,180**	**79.2%**	**14,362**	**17,477**	**82.2%**	**2,739**	**3,596**	**76.2%**				**25,164**	**31,253**	**80.5%**	
FIT	France Calvados, Women	66	76	**86.8%**	20	21	**95.2%**	5	6	**83.3%**				91	103	**88.3%**	
	France Calvados, Men	68	75	**90.7%**	32	36	**88.9%**	5	7	**71.4%**				105	118	**89.0%**	
	Italy, Women	6,857	8,969	**76.5%**	5,135	8,119	**63.2%**							11,992	17,088	**70.2%**	
	Italy, Men	8,357	10,630	**78.6%**	7,233	10,769	**67.2%**							15,590	21,399	**72.9%**	
	Ireland, Women + Men				1,352	1,898	**71.2%**							1,352	1,898	**71.2%**	
	Malta, Women + Men				192	290	**66.2%**							192	290	**66.2%**	
	Netherlands, Women				7,213	9,032	**79.9%**				5,596	7,332	**76.3%**	12,809	16,364	**78.3%**	
	Netherlands, Men				11,447	13,939	**82.1%**				7,503	9,815	**76.4%**	18,950	23,754	**79.8%**	
	Slovenia, Women	1,339	1,446	**92.6%**	694	789	**88.0%**							2,033	2,235	**91.0%**	
	Slovenia, Men	1,992	2,199	**90.6%**	1,099	1,270	**86.5%**							3,091	3,469	**89.1%**	
	Spain, Women	3,386	3,713	**91.2%**	3,749	4,154	**90.3%**							7,135	7,867	**90.7%**	
	Spain, Men	4,993	5,488	**91.0%**	5,553	6,101	**91.0%**							10,546	11,589	**91.0%**	
	Total Women	**11,648**	**14,204**	**82.0%**	**16,811**	**22,115**	**76.0%**	**5**	**6**	**83.3%**	**5,596**	**7,332**	**76.3%**	**34,060**	**43,657**	**78.0%**	
	Total Men	**15,410**	**18,392**	**83.8%**	**25,364**	**32,115**	**79.0%**	**5**	**7**	**71.4%**	**7,503**	**9,815**	**76.4%**	**48,282**	**60,329**	**80.0%**	
	Total Women + Men	**27,058**	**32,596**	**83.0%**	**43,719**	**56,418**	**77.5%**	**10**	**13**	**76.9%**	**13,099**	**17,147**	**76.4%**	**83,886**	**106,174**	**79.0%**	

Table 4.22.3. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Completion rate of follow-up colonoscopy (%)

Initial screening

Numerator (N) = Follow-up colonoscopy completed

Denominator (D) = Data on completion of follow-up colonoscopy available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	111	121	**91.7%**	99	107	**92.5%**	24	26	**92.3%**				234	254	**92.1%**	
	Belgium Wallonia + Brussels, Men	123	138	**89.1%**	108	125	**86.4%**	23	26	**88.5%**				254	289	**87.9%**	
	Finland, Women																
	Finland, Men																
	France, Women	3,153	3,210	**98.2%**	1,684	1,736	**97.0%**	482	503	**95.8%**				5,319	5,449	**97.6%**	
	France, Men	3,671	3,739	**98.2%**	1,986	2,043	**97.2%**	596	625	**95.4%**				6,253	6,407	**97.6%**	
	Sweden Stockholm Gotland, Women				536	566	**94.7%**							536	566	**94.7%**	
	Sweden Stockholm Gotland, Men				613	646	**94.9%**							613	646	**94.9%**	
	UK England, Women																*1*
	UK England, Men																*1*
	UK Scotland, Women	205	214	**95.8%**	6	6	**100.0%**	4	4	**100.0%**				215	224	**96.0%**	
	UK Scotland, Men	308	314	**98.1%**	14	15	**93.3%**	7	8	**87.5%**				329	337	**97.6%**	
	UK Wales, Women				168	179	**93.9%**	31	34	**91.2%**				199	213	**93.4%**	
	UK Wales, Men				307	316	**97.2%**	59	62	**95.2%**				366	378	**96.8%**	
	Total Women	**3,469**	**3,545**	**97.9%**	**2,493**	**2,594**	**96.1%**	**541**	**567**	**95.4%**				**6,503**	**6,706**	**97.0%**	
	Total Men	**4,102**	**4,191**	**97.9%**	**3,028**	**3,145**	**96.3%**	**685**	**721**	**95.0%**				**7,815**	**8,057**	**97.0%**	
	Total Women + Men	**7,571**	**7,736**	**97.9%**	**5,521**	**5,739**	**96.2%**	**1,226**	**1,288**	**95.2%**				**14,318**	**14,763**	**97.0%**	
FIT	France Calvados, Women	62	66	**93.9%**	20	20	**100.0%**	4	5	**80.0%**				86	91	**94.5%**	
	France Calvados, Men	66	68	**97.1%**	29	32	**90.6%**	4	5	**80.0%**				99	105	**94.3%**	
	Italy, Women	6,209	6,857	**90.5%**	4,573	5,135	**89.1%**							10,782	11,992	**89.9%**	
	Italy, Men	7,688	8,357	**92.0%**	6,407	7,233	**88.6%**							14,095	15,590	**90.4%**	
	Ireland, Women + Men				1,299	1,352	**96.1%**							1,299	1,352	**96.1%**	
	Malta, Women + Men																*1*
	Netherlands, Women																*1*
	Netherlands, Men																*1*
	Slovenia, Women	1,306	1,339	**97.5%**	679	694	**97.8%**							1,985	2,033	**97.6%**	
	Slovenia, Men	1,976	1,992	**99.2%**	1,074	1,099	**97.7%**							3,050	3,091	**98.7%**	
	Spain, Women	3,109	3,386	**91.8%**	3,358	3,749	**89.6%**							6,467	7,135	**90.6%**	
	Spain, Men	4,644	4,993	**93.0%**	5,056	5,553	**91.0%**							9,700	10,546	**92.0%**	
	Total Women	**10,686**	**11,648**	**91.7%**	**8,630**	**9,598**	**89.9%**	**4**	**5**	**80.0%**				**19,320**	**21,251**	**90.9%**	
	Total Men	**14,374**	**15,410**	**93.3%**	**12,566**	**13,917**	**90.3%**	**4**	**5**	**80.0%**				**26,944**	**29,332**	**91.9%**	
	Total Women + Men	**25,060**	**27,058**	**92.6%**	**22,495**	**24,867**	**90.5%**	**8**	**10**	**80.0%**				**47,563**	**51,935**	**91.6%**	

Notes

1) Data not available

Table 4.22.4. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Detection rate of adenomas (%)

Initial screening

Numerator (N) = Adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	38	5,291	0.7%	40	3,508	1.1%	13	890	1.5%				91	9,689	0.9%	
	Belgium Wallonia + Brussels, Men	64	4,724	1.4%	52	2,967	1.8%	13	739	1.8%				129	8,430	1.5%	
	Finland, Women				34	8,945	0.4%							34	8,945	0.4%	
	Finland, Men				83	6,817	1.2%							83	6,817	1.2%	
	France, Women	763	230,962	0.3%	488	90,623	0.5%	156	23,891	0.7%				1,407	345,476	0.4%	
	France, Men	1,394	202,409	0.7%	916	82,427	1.1%	275	20,526	1.3%				2,585	305,362	0.8%	
	Sweden Stockholm Gotland, Women				111	22,341	0.5%							111	22,341	0.5%	
	Sweden Stockholm Gotland, Men				181	17,756	1.0%							181	17,756	1.0%	
	UK England, Women				987	236,958	0.4%	218	27,847	0.8%				1,205	264,805	0.5%	
	UK England, Men				1,870	220,172	0.8%	309	27,163	1.1%				2,179	247,335	0.9%	
	UK Scotland, Women	62	23,829	0.3%	2	796	0.3%	2	174	1.1%				66	24,799	0.3%	
	UK Scotland, Men	117	21,470	0.5%	6	874	0.7%	5	166	3.0%				128	22,510	0.6%	
	UK Wales, Women				46	13,423	0.3%	9	1,479	0.6%				55	14,902	0.4%	
	UK Wales, Men				94	12,620	0.7%	12	1,583	0.8%				106	14,203	0.7%	
	Total Women	**863**	**260,082**	**0.3%**	**1,708**	**376,594**	**0.5%**	**398**	**54,281**	**0.7%**				**2,969**	**690,957**	**0.4%**	
	Total Men	**1,575**	**228,603**	**0.7%**	**3,202**	**343,633**	**0.9%**	**614**	**50,177**	**1.2%**				**5,391**	**622,413**	**0.9%**	
	Total Women + Men	**2,438**	**488,685**	**0.5%**	**4,910**	**720,227**	**0.7%**	**1,012**	**104,458**	**1.0%**				**8,360**	**1,313,370**	**0.6%**	
FIT	France Calvados, Women	22	1,981	1.1%	6	671	0.9%	3	179	1.7%				31	2,831	1.1%	
	France Calvados, Men	23	1,690	1.4%	14	609	2.3%	2	157	1.3%				39	2,456	1.6%	
	Italy, Women	2,031	235,286	0.9%	1,730	134,188	1.3%							3,761	369,474	1.0%	
	Italy, Men	3,576	202,310	1.8%	3,360	122,455	2.7%							6,936	324,765	2.1%	
	Ireland, Women + Men				686	23,511	2.9%							686	23,511	2.9%	
	Malta, Women + Men				116	6,754	1.7%							116	6,754	1.7%	
	Netherlands, Women				3,868	189,432	2.0%				2,925	80,347	3.6%	6,793	269,779	2.5%	
	Netherlands, Men				7,230	181,983	4.0%				4,623	72,373	6.4%	11,853	254,356	4.7%	
	Slovenia, Women	494	30,267	1.6%	296	10,958	2.7%							790	41,225	1.9%	
	Slovenia, Men	1,180	27,458	4.3%	726	10,461	6.9%							1,906	37,919	5.0%	
	Spain, Women	1,415	78,929	1.8%	1,761	59,320	3.0%							3,176	138,249	2.3%	
	Spain, Men	3,097	69,600	4.4%	3,612	52,955	6.8%							6,709	122,555	5.5%	
	Total Women	**3,962**	**346,463**	**1.1%**	**7,661**	**394,569**	**1.9%**	**3**	**179**	**1.7%**	**2,925**	**80,347**	**3.6%**	**14,551**	**821,558**	**1.8%**	
	Total Men	**7,876**	**301,058**	**2.6%**	**14,942**	**368,463**	**4.1%**	**2**	**157**	**1.3%**	**4,623**	**72,373**	**6.4%**	**27,443**	**742,051**	**3.7%**	
	Total Women + Men	**11,838**	**647,521**	**1.8%**	**23,405**	**793,297**	**3.0%**	**5**	**336**	**1.5%**	**7,548**	**152,720**	**4.9%**	**42,796**	**1,593,874**	**2.7%**	

Table 4.22.5. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Detection rate of advanced adenomas (%)

Initial screening

Numerator (N) = Advanced adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	18	5,291	0.3%	19	3,508	0.5%	3	890	0.3%				40	9,689	0.4%	
	Belgium Wallonia + Brussels, Men	31	4,724	0.7%	29	2,967	1.0%	4	739	0.5%				64	8,430	0.8%	
	Finland, Women				7	8,945	0.1%							7	8,945	0.1%	
	Finland, Men				12	6,817	0.2%							12	6,817	0.2%	
	France, Women	452	230,962	0.2%	276	90,623	0.3%	96	23,891	0.4%				824	345,476	0.2%	
	France, Men	861	202,409	0.4%	594	82,427	0.7%	170	20,526	0.8%				1,625	305,362	0.5%	
	Sweden Stockholm Gotland, Women				34	22,341	0.2%							34	22,341	0.2%	
	Sweden Stockholm Gotland, Men				73	17,756	0.4%							73	17,756	0.4%	
	UK England, Women				195	236,958	0.1%	39	27,847	0.1%				234	264,805	0.1%	
	UK England, Men				618	220,172	0.3%	147	27,163	0.5%				765	247,335	0.3%	
	UK Scotland, Women	5	23,829	0.0%	1	796	0.1%	0	174	0.0%				6	24,799	0.0%	
	UK Scotland, Men	21	21,470	0.1%	1	874	0.1%	0	166	0.0%				22	22,510	0.1%	
	UK Wales, Women																*1*
	UK Wales, Men																*1*
	Total Women	**475**	**260,082**	**0.2%**	**532**	**363,171**	**0.1%**	**138**	**52,802**	**0.3%**				**1,145**	**676,055**	**0.2%**	
	Total Men	**913**	**228,603**	**0.4%**	**1,327**	**331,013**	**0.4%**	**321**	**48,594**	**0.7%**				**2,561**	**608,210**	**0.4%**	
	Total Women + Men	**1,388**	**488,685**	**0.3%**	**1,859**	**694,184**	**0.3%**	**459**	**101,396**	**0.5%**				**3,706**	**1,284,265**	**0.3%**	
FIT	France Calvados, Women	15	1,981	0.8%	3	671	0.4%	3	179	1.7%				21	2,831	0.7%	
	France Calvados, Men	14	1,690	0.8%	8	609	1.3%	2	157	1.3%				24	2,456	1.0%	
	Italy, Women	1,115	235,286	0.5%	917	134,188	0.7%							2,032	369,474	0.5%	
	Italy, Men	1,947	202,310	1.0%	1,862	122,455	1.5%							3,809	324,765	1.2%	
	Ireland, Women + Men																*1*
	Malta, Women + Men																*1*
	Netherlands, Women				2,529	189,432	1.3%				1,740	80,347	2.2%	4,269	269,779	1.6%	
	Netherlands, Men				4,891	181,983	2.7%				2,870	72,373	4.0%	7,761	254,356	3.1%	
	Slovenia, Women	301	30,267	1.0%	192	10,958	1.8%							493	41,225	1.2%	
	Slovenia, Men	787	27,458	2.9%	503	10,461	4.8%							1,290	37,919	3.4%	
	Spain, Women	959	78,929	1.2%	1,133	59,320	1.9%							2,092	138,249	1.5%	
	Spain, Men	2,292	69,600	3.3%	2,692	52,955	5.1%							4,984	122,555	4.1%	
	Total Women	**2,390**	**346,463**	**0.7%**	**4,774**	**394,569**	**1.2%**	**3**	**179**	**1.7%**	**1,740**	**80,347**	**2.2%**	**8,907**	**821,558**	**1.1%**	
	Total Men	**5,040**	**301,058**	**1.7%**	**9,956**	**368,463**	**2.7%**	**2**	**157**	**1.3%**	**2,870**	**72,373**	**4.0%**	**17,868**	**742,051**	**2.4%**	
	Total Women + Men	**7,430**	**647,521**	**1.1%**	**14,730**	**763,032**	**1.9%**	**5**	**336**	**1.5%**	**4,610**	**152,720**	**3.0%**	**26,775**	**1,563,609**	**1.7%**	

Notes

1) Data not available

Table 4.22.6. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Detection rate of colorectal cancers (/1000)

Initial screening

Numerator (N) = Colorectal cancers detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	‰	N	D	‰	N	D	‰	N	D	‰	N	D	‰	
gFOBT	Belgium Wallonia + Brussels, Women	6	5,291	**1.13**	13	3,508	**3.71**	3	890	**3.37**				22	9,689	**2.27**	
	Belgium Wallonia + Brussels, Men	6	4,724	**1.27**	15	2,967	**5.06**	4	739	**5.41**				25	8,430	**2.97**	
	Finland, Women				6	8,945	**0.67**							6	8,945	**0.67**	
	Finland, Men				17	6,817	**2.49**							17	6,817	**2.49**	
	France, Women	115	230,962	**0.50**	114	90,623	**1.26**	43	23,891	**1.80**				272	345,476	**0.79**	
	France, Men	184	202,409	**0.91**	226	82,427	**2.74**	87	20,526	**4.24**				497	305,362	**1.63**	
	Sweden Stockholm Gotland, Women				18	22,341	**0.81**							18	22,341	**0.81**	
	Sweden Stockholm Gotland, Men				29	17,756	**1.63**							29	17,756	**1.63**	
	UK England, Women				207	236,958	**0.87**	59	27,847	**2.12**				266	264,805	**1.00**	
	UK England, Men				450	220,172	**2.04**	128	27,163	**4.71**				578	247,335	**2.34**	
	UK Scotland, Women	16	23,829	**0.67**	1	796	**1.26**	1	174	**5.75**				18	24,799	**0.73**	
	UK Scotland, Men	15	21,470	**0.70**	3	874	**3.43**	2	166	**12.05**				20	22,510	**0.89**	
	UK Wales, Women				8	13,423	**0.60**	3	1,479	**2.03**				11	14,902	**0.74**	
	UK Wales, Men				30	12,620	**2.38**	7	1,583	**4.42**				37	14,203	**2.61**	
	Total Women	**137**	**260,082**	**0.53**	**367**	**376,594**	**0.97**	**109**	**54,281**	**2.01**				**613**	**690,957**	**0.89**	
	Total Men	**205**	**228,603**	**0.90**	**770**	**343,633**	**2.24**	**228**	**50,177**	**4.54**				**1,203**	**622,413**	**1.93**	
	Total Women + Men	**342**	**488,685**	**0.70**	**1,137**	**720,227**	**1.58**	**337**	**104,458**	**3.23**				**1,816**	**1,313,370**	**1.38**	
FIT	France Calvados, Women	3	1,981	**1.51**	0	671	**0.00**	1	179	**5.59**				4	2,831	**1.41**	
	France Calvados, Men	4	1,690	**2.37**	3	609	**4.93**	1	157	**6.37**				8	2,456	**3.26**	
	Italy, Women	211	235,286	**0.90**	275	134,188	**2.05**							486	369,474	**1.32**	
	Italy, Men	269	202,310	**1.33**	514	122,455	**4.20**							783	324,765	**2.41**	
	Ireland, Women + Men				63	23,511	**2.68**							63	23,511	**2.68**	
	Malta, Women + Men				15	6,754	**2.22**							15	6,754	**2.22**	
	Netherlands, Women				522	189,432	**2.76**				445	80,347	**5.54**	967	269,779	**3.58**	
	Netherlands, Men				843	181,983	**4.63**				673	72,373	**9.30**	1,516	254,356	**5.96**	
	Slovenia, Women	39	30,267	**1.29**	30	10,958	**2.74**							69	41,225	**1.67**	
	Slovenia, Men	63	27,458	**2.29**	83	10,461	**7.93**							146	37,919	**3.85**	
	Spain, Women	162	78,929	**2.05**	182	59,320	**3.07**							344	138,249	**2.49**	
	Spain, Men	237	69,600	**3.41**	444	52,955	**8.38**							681	122,555	**5.56**	
	Total Women	**415**	**346,463**	**1.20**	**1,009**	**394,569**	**2.56**	**1**	**179**	**5.59**	**445**	**80,347**	**5.54**	**1,870**	**821,558**	**2.28**	
	Total Men	**573**	**301,058**	**1.90**	**1,887**	**368,463**	**5.12**	**1**	**157**	**6.37**	**673**	**72,373**	**9.30**	**3,134**	**742,051**	**4.22**	
	Total Women + Men	**988**	**647,521**	**1.53**	**2,974**	**793,297**	**3.75**	**2**	**336**	**5.95**	**1,118**	**152,720**	**7.32**	**5,082**	**1,593,874**	**3.19**	

Table 4.22.7. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

PPV of adenomas (%)

Initial screening

Numerator (N) = Adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	38	121	**31.4%**	40	107	**37.4%**	13	26	**50.0%**				91	254	**35.8%**	
	Belgium Wallonia + Brussels, Men	64	138	**46.4%**	52	125	**41.6%**	13	26	**50.0%**				129	289	**44.6%**	
	Finland, Women				34	140	**24.3%**							34	140	**24.3%**	
	Finland, Men				83	234	**35.5%**							83	234	**35.5%**	
	France, Women	763	3,374	**22.6%**	488	1,840	**26.5%**	156	538	**29.0%**				1,407	5,752	**24.5%**	
	France, Men	1,394	3,902	**35.7%**	916	2,161	**42.4%**	275	657	**41.9%**				2,585	6,720	**38.5%**	
	Sweden Stockholm Gotland, Women				111	566	**19.6%**							111	566	**19.6%**	
	Sweden Stockholm Gotland, Men				181	646	**28.0%**							181	646	**28.0%**	
	UK England, Women				987	3,213	**30.7%**	218	562	**38.8%**				1,205	3,775	**31.9%**	
	UK England, Men				1,870	4,799	**39.0%**	309	820	**37.7%**				2,179	5,619	**38.8%**	
	UK Scotland, Women	62	214	**29.0%**	2	6	**33.3%**	2	4	**50.0%**				66	224	**29.5%**	
	UK Scotland, Men	117	314	**37.3%**	6	15	**40.0%**	5	8	**62.5%**				128	337	**38.0%**	
	UK Wales, Women				46	184	**25.0%**	9	35	**25.7%**				55	219	**25.1%**	
	UK Wales, Men				94	326	**28.8%**	12	63	**19.0%**				106	389	**27.2%**	
	Total Women	**863**	**3,709**	**23.3%**	**1,708**	**6,056**	**28.2%**	**398**	**1,165**	**34.2%**				**2,969**	**10,930**	**27.2%**	
	Total Men	**1,575**	**4,354**	**36.2%**	**3,202**	**8,306**	**38.6%**	**614**	**1,574**	**39.0%**				**5,391**	**14,234**	**37.9%**	
	Total Women + Men	**2,438**	**8,063**	**30.2%**	**4,910**	**14,362**	**34.2%**	**1,012**	**2,739**	**36.9%**				**8,360**	**25,164**	**33.2%**	
FIT	France Calvados, Women	22	66	**33.3%**	6	20	**30.0%**	3	5	**60.0%**				31	91	**34.1%**	
	France Calvados, Men	23	68	**33.8%**	14	32	**43.8%**	2	5	**40.0%**				39	105	**37.1%**	
	Italy, Women	2,031	6,857	**29.6%**	1,730	5,135	**33.7%**							3,761	11,992	**31.4%**	
	Italy, Men	3,576	8,357	**42.8%**	3,360	7,233	**46.5%**							6,936	15,590	**44.5%**	
	Ireland, Women + Men				686	1,352	**50.7%**							686	1,352	**50.7%**	
	Malta, Women + Men				116	192	**60.4%**							116	192	**60.4%**	
	Netherlands, Women				3,868	7,213	**53.6%**				2,925	5,596	**52.3%**	6,793	12,809	**53.0%**	
	Netherlands, Men				7,230	11,447	**63.2%**				4,623	7,503	**61.6%**	11,853	18,950	**62.5%**	
	Slovenia, Women	494	1,339	**36.9%**	296	694	**42.7%**							790	2,033	**38.9%**	
	Slovenia, Men	1,180	1,992	**59.2%**	726	1,099	**66.1%**							1,906	3,091	**61.7%**	
	Spain, Women	1,415	3,386	**41.8%**	1,761	3,749	**47.0%**							3,176	7,135	**44.5%**	
	Spain, Men	3,097	4,993	**62.0%**	3,612	5,553	**65.0%**							6,709	10,546	**63.6%**	
	Total Women	**3,962**	**11,648**	**34.0%**	**7,661**	**16,811**	**45.6%**	**3**	**5**	**60.0%**	**2,925**	**5,596**	**52.3%**	**14,551**	**34,060**	**42.7%**	
	Total Men	**7,876**	**15,410**	**51.1%**	**14,942**	**25,364**	**58.9%**	**2**	**5**	**40.0%**	**4,623**	**7,503**	**61.6%**	**27,443**	**48,282**	**56.8%**	
	Total Women + Men	**11,838**	**27,058**	**43.8%**	**23,405**	**43,719**	**53.5%**	**5**	**10**	**50.0%**	**7,548**	**13,099**	**57.6%**	**42,796**	**83,886**	**51.0%**	

Table 4.22.8. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

PPV of advanced adenomas (%)

Initial screening

Numerator (N) = Advanced adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	18	121	**14.9%**	19	107	**17.8%**	3	26	**11.5%**				40	254	**15.7%**	
	Belgium Wallonia + Brussels, Men	31	138	**22.5%**	29	125	**23.2%**	4	26	**15.4%**				64	289	**22.1%**	
	Finland, Women				7	140	**5.0%**							7	140	**5.0%**	
	Finland, Men				12	234	**5.1%**							12	234	**5.1%**	
	France, Women	452	3,374	**13.4%**	276	1,840	**15.0%**	96	538	**17.8%**				824	5,752	**14.3%**	
	France, Men	861	3,902	**22.1%**	594	2,161	**27.5%**	170	657	**25.9%**				1,625	6,720	**24.2%**	
	Sweden Stockholm Gotland, Women				34	566	**6.0%**							34	566	**6.0%**	
	Sweden Stockholm Gotland, Men				73	646	**11.3%**							73	646	**11.3%**	
	UK England, Women				195	3,213	**6.1%**	39	562	**6.9%**				234	3,775	**6.2%**	
	UK England, Men				618	4,799	**12.9%**	147	820	**17.9%**				765	5,619	**13.6%**	
	UK Scotland, Women	5	214	**2.3%**	1	6	**16.7%**	0	4	**0.0%**				6	224	**2.7%**	
	UK Scotland, Men	21	314	**6.7%**	1	15	**6.7%**	0	8	**0.0%**				22	337	**6.5%**	
	UK Wales, Women																*1*
	UK Wales, Men																*1*
	Total Women	**475**	**3,709**	**12.8%**	**532**	**5,872**	**9.1%**	**138**	**1,130**	**12.2%**				**1,145**	**10,711**	**10.7%**	
	Total Men	**913**	**4,354**	**21.0%**	**1,327**	**7,980**	**16.6%**	**321**	**1,511**	**21.2%**				**2,561**	**13,845**	**18.5%**	
	Total Women + Men	**1,388**	**8,063**	**17.2%**	**1,859**	**13,852**	**13.4%**	**459**	**2,641**	**17.4%**				**3,706**	**24,556**	**15.1%**	
FIT	France Calvados, Women	15	66	**22.7%**	3	20	**15.0%**	3	5	**60.0%**				21	91	**23.1%**	
	France Calvados, Men	14	68	**20.6%**	8	32	**25.0%**	2	5	**40.0%**				24	105	**22.9%**	
	Italy, Women	1,115	6,857	**16.3%**	917	5,135	**17.9%**							2,032	11,992	**16.9%**	
	Italy, Men	1,947	8,357	**23.3%**	1,862	7,233	**25.7%**							3,809	15,590	**24.4%**	
	Ireland, Women + Men																*1*
	Malta, Women + Men																*1*
	Netherlands, Women				2,529	7,213	**35.1%**				1,740	5,596	**31.1%**	4,269	12,809	**33.3%**	
	Netherlands, Men				4,891	11,447	**42.7%**				2,870	7,503	**38.3%**	7,761	18,950	**41.0%**	
	Slovenia, Women	301	1,339	**22.5%**	192	694	**27.7%**							493	2,033	**24.2%**	
	Slovenia, Men	787	1,992	**39.5%**	503	1,099	**45.8%**							1,290	3,091	**41.7%**	
	Spain, Women	959	3,386	**28.3%**	1,133	3,749	**30.2%**							2,092	7,135	**29.3%**	
	Spain, Men	2,292	4,993	**45.9%**	2,692	5,553	**48.5%**							4,984	10,546	**47.3%**	
	Total Women	**2,390**	**11,648**	**20.5%**	**4,774**	**16,811**	**28.4%**	**3**	**5**	**60.0%**	**1,740**	**5,596**	**31.1%**	**8,907**	**34,060**	**26.2%**	
	Total Men	**5,040**	**15,410**	**32.7%**	**9,956**	**25,364**	**39.3%**	**2**	**5**	**40.0%**	**2,870**	**7,503**	**38.3%**	**17,868**	**48,282**	**37.0%**	
	Total Women + Men	**7,430**	**27,058**	**27.5%**	**14,730**	**42,175**	**34.9%**	**5**	**10**	**50.0%**	**4,610**	**13,099**	**35.2%**	**26,775**	**82,342**	**32.5%**	

Notes

1) Data not available

Table 4.22.9. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

PPV of colorectal cancers (%)

Initial screening

Numerator (N) = Colorectal cancers detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	6	121	5.0%	13	107	12.1%	3	26	11.5%				22	254	8.7%	
	Belgium Wallonia + Brussels, Men	6	138	4.3%	15	125	12.0%	4	26	15.4%				25	289	8.7%	
	Finland, Women				6	140	4.3%							6	140	4.3%	
	Finland, Men				17	234	7.3%							17	234	7.3%	
	France, Women	115	3,374	3.4%	114	1,840	6.2%	43	538	8.0%				272	5,752	4.7%	
	France, Men	184	3,902	4.7%	226	2,161	10.5%	87	657	13.2%				497	6,720	7.4%	
	Sweden Stockholm Gotland, Women				18	566	3.2%							18	566	3.2%	
	Sweden Stockholm Gotland, Men				29	646	4.5%							29	646	4.5%	
	UK England, Women				207	3,213	6.4%	59	562	10.5%				266	3,775	7.0%	
	UK England, Men				450	4,799	9.4%	128	820	15.6%				578	5,619	10.3%	
	UK Scotland, Women	16	214	7.5%	1	6	16.7%	1	4	25.0%				18	224	8.0%	
	UK Scotland, Men	15	314	4.8%	3	15	20.0%	2	8	25.0%				20	337	5.9%	
	UK Wales, Women				8	184	4.3%	3	35	8.6%				11	219	5.0%	
	UK Wales, Men				30	326	9.2%	7	63	11.1%				37	389	9.5%	
	Total Women	**137**	**3,709**	**3.7%**	**367**	**6,056**	**6.1%**	**109**	**1,165**	**9.4%**				**613**	**10,930**	**5.6%**	
	Total Men	**205**	**4,354**	**4.7%**	**770**	**8,306**	**9.3%**	**228**	**1,574**	**14.5%**				**1,203**	**14,234**	**8.5%**	
	Total Women + Men	**342**	**8,063**	**4.2%**	**1,137**	**14,362**	**7.9%**	**337**	**2,739**	**12.3%**				**1,816**	**25,164**	**7.2%**	
FIT	France Calvados, Women	3	66	4.5%	0	20	0.0%	1	5	20.0%				4	91	4.4%	
	France Calvados, Men	4	68	5.9%	3	32	9.4%	1	5	20.0%				8	105	7.6%	
	Italy, Women	211	6,857	3.1%	275	5,135	5.4%							486	11,992	4.1%	
	Italy, Men	269	8,357	3.2%	514	7,233	7.1%							783	15,590	5.0%	
	Ireland, Women + Men				63	1,352	4.7%							63	1,352	4.7%	
	Malta, Women + Men				15	192	7.8%							15	192	7.8%	
	Netherlands, Women				522	7,213	7.2%				445	5,596	8.0%	967	12,809	7.5%	
	Netherlands, Men				843	11,447	7.4%				673	7,503	9.0%	1,516	18,950	8.0%	
	Slovenia, Women	39	1,339	2.9%	30	694	4.3%							69	2,033	3.4%	
	Slovenia, Men	63	1,992	3.2%	83	1,099	7.6%							146	3,091	4.7%	
	Spain, Women	162	3,386	4.8%	182	3,749	4.9%							344	7,135	4.8%	
	Spain, Men	237	4,993	4.7%	444	5,553	8.0%							681	10,546	6.5%	
	Total Women	**415**	**11,648**	**3.6%**	**1,009**	**16,811**	**6.0%**	**1**	**5**	**20.0%**	**445**	**5,596**	**8.0%**	**1,870**	**34,060**	**5.5%**	
	Total Men	**573**	**15,410**	**3.7%**	**1,887**	**25,364**	**7.4%**	**1**	**5**	**20.0%**	**673**	**7,503**	**9.0%**	**3,134**	**48,282**	**6.5%**	
	Total Women + Men	**988**	**27,058**	**3.7%**	**2,974**	**43,719**	**6.8%**	**2**	**10**	**20.0%**	**1,118**	**13,099**	**8.5%**	**5,082**	**83,886**	**6.1%**	

Table 4.23.1. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Screen positivity (indication for follow-up colonoscopy) rate (%)

Subsequent screening

Numerator (N) = Positive screening tests in the year

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	120	3,723	**3.2%**	228	6,286	**3.6%**	68	1,872	**3.6%**				416	11,881	**3.5%**	
	Belgium Wallonia + Brussels, Men	131	3,499	**3.7%**	227	5,477	**4.1%**	72	1,643	**4.4%**				430	10,619	**4.0%**	
	Finland, Women				559	24,371	**2.3%**							559	24,371	**2.3%**	
	Finland, Men				715	19,117	**3.7%**							715	19,117	**3.7%**	
	France, Women	5,407	336,575	**1.6%**	8,571	439,934	**1.9%**	3,594	151,518	**2.4%**				17,572	928,027	**1.9%**	
	France, Men	5,763	262,271	**2.2%**	8,976	353,543	**2.5%**	3,572	121,574	**2.9%**				18,311	737,388	**2.5%**	
	Sweden Stockholm Gotland, Women				407	14,150	**2.9%**							407	14,150	**2.9%**	
	Sweden Stockholm Gotland, Men				517	10,815	**4.8%**							517	10,815	**4.8%**	
	UK England, Women				8,644	669,648	**1.3%**	3,466	216,149	**1.6%**				12,110	885,797	**1.4%**	
	UK England, Men				11,379	580,000	**2.0%**	4,685	193,092	**2.4%**				16,064	773,092	**2.1%**	
	UK Scotland, Women	1,198	90,344	**1.3%**	1,780	103,701	**1.7%**	809	41,098	**2.0%**	209	1,285	**16.3%**	3,996	236,428	**1.7%**	
	UK Scotland, Men	1,662	80,152	**2.1%**	2,540	92,160	**2.8%**	1,054	34,200	**3.1%**	232	1,282	**18.1%**	5,488	207,794	**2.6%**	
	UK Wales, Women				542	39,706	**1.4%**	340	17,772	**1.9%**				882	57,478	**1.5%**	
	UK Wales, Men				879	33,299	**2.6%**	485	15,882	**3.1%**				1,364	49,181	**2.8%**	
	Total Women	**6,725**	**430,642**	**1.6%**	**20,731**	**1,297,796**	**1.6%**	**8,277**	**428,409**	**1.9%**	**209**	**1,285**	**16.3%**	**35,942**	**2,158,132**	**1.7%**	
	Total Men	**7,556**	**345,922**	**2.2%**	**25,233**	**1,094,411**	**2.3%**	**9,868**	**366,391**	**2.7%**	**232**	**1,282**	**18.1%**	**42,889**	**1,808,006**	**2.4%**	
	Total Women + Men	**14,281**	**776,564**	**1.8%**	**45,964**	**2,392,207**	**1.9%**	**18,145**	**794,800**	**2.3%**	**441**	**2,567**	**17.2%**	**78,831**	**3,966,138**	**2.0%**	
FIT	France Calvados, Women	101	3,692	**2.7%**	139	5,130	**2.7%**	51	1,802	**2.8%**				291	10,624	**2.7%**	
	France Calvados, Men	71	2,702	**2.6%**	120	3,688	**3.3%**	73	1,307	**5.6%**				264	7,697	**3.4%**	
	Italy, Women	9,559	294,994	**3.2%**	16,994	398,270	**4.3%**							26,553	693,264	**3.8%**	
	Italy, Men	10,325	245,154	**4.2%**	19,360	336,874	**5.7%**							29,685	582,028	**5.1%**	
	Slovenia, Women	1,957	49,670	**3.9%**	2,356	47,808	**4.9%**							4,313	97,478	**4.4%**	
	Slovenia, Men	2,228	38,237	**5.8%**	2,902	37,089	**7.8%**							5,130	75,326	**6.8%**	
	Spain, Women	1,871	47,429	**3.9%**	2,897	55,851	**5.2%**							4,768	103,280	**4.6%**	
	Spain, Men	2,298	39,670	**5.8%**	3,479	45,205	**7.7%**							5,777	84,875	**6.8%**	
	Total Women	**13,488**	**395,785**	**3.4%**	**22,386**	**507,059**	**4.4%**	**51**	**1,802**	**2.8%**				**35,925**	**904,646**	**4.0%**	
	Total Men	**14,922**	**325,763**	**4.6%**	**25,861**	**422,856**	**6.1%**	**73**	**1,307**	**5.6%**				**40,856**	**749,926**	**5.4%**	
	Total Women + Men	**28,410**	**721,548**	**3.9%**	**48,247**	**929,915**	**5.2%**	**124**	**3,109**	**4.0%**				**76,781**	**1,654,572**	**4.6%**	

Table 4.23.2. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol
Follow-up colonoscopy participation rate (%)
Subsequent screening

Numerator (N) = Further colonoscopy performed
Denominator (D) = Data on further colonoscopy performance available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	97	120	**80.8%**	175	228	**76.8%**	48	68	**70.6%**				320	416	**76.9%**	
	Belgium Wallonia + Brussels, Men	94	131	**71.8%**	168	227	**74.0%**	54	72	**75.0%**				316	430	**73.5%**	
	Finland, Women				441	555	**79.5%**							441	555	**79.5%**	
	Finland, Men				567	706	**80.3%**							567	706	**80.3%**	
	France, Women	4,667	5,407	**86.3%**	7,469	8,571	**87.1%**	3,050	3,594	**84.9%**				15,186	17,572	**86.4%**	
	France, Men	4,992	5,763	**86.6%**	7,707	8,976	**85.9%**	2,971	3,572	**83.2%**				15,670	18,311	**85.6%**	
	Sweden Stockholm Gotland, Women				367	407	**90.2%**							367	407	**90.2%**	
	Sweden Stockholm Gotland, Men				477	517	**92.3%**							477	517	**92.3%**	
	UK England, Women				7,333	8,644	**84.8%**	2,788	3,466	**80.4%**				10,121	12,110	**83.6%**	
	UK England, Men				9,743	11,379	**85.6%**	3,858	4,685	**82.3%**				13,601	16,064	**84.7%**	
	UK Scotland, Women	975	1,157	**84.3%**	1,403	1,703	**82.4%**	618	769	**80.4%**	156	197	**79.2%**	3,152	3,826	**82.4%**	
	UK Scotland, Men	1,372	1,614	**85.0%**	2,031	2,462	**82.5%**	798	1,000	**79.8%**	184	226	**81.4%**	4,385	5,302	**82.7%**	
	UK Wales, Women				458	542	**84.5%**	273	340	**80.3%**				731	882	**82.9%**	
	UK Wales, Men				752	879	**85.6%**	391	485	**80.6%**				1,143	1,364	**83.8%**	
	Total Women	**5,739**	**6,684**	**85.9%**	**17,646**	**20,650**	**85.5%**	**6,777**	**8,237**	**82.3%**	**156**	**197**	**79.2%**	**30,318**	**35,768**	**84.8%**	
	Total Men	**6,458**	**7,508**	**86.0%**	**21,445**	**25,146**	**85.3%**	**8,072**	**9,814**	**82.2%**	**184**	**226**	**81.4%**	**36,159**	**42,694**	**84.7%**	
	Total Women + Men	**12,197**	**14,192**	**85.9%**	**39,091**	**45,796**	**85.4%**	**14,849**	**18,051**	**82.3%**	**340**	**423**	**80.4%**	**66,477**	**78,462**	**84.7%**	
FIT	France Calvados, Women	90	101	**89.1%**	123	139	**88.5%**	43	51	**84.3%**				256	291	**88.0%**	
	France Calvados, Men	62	71	**87.3%**	101	120	**84.2%**	66	73	**90.4%**				229	264	**86.7%**	
	Italy, Women	7,894	9,559	**82.6%**	13,586	16,994	**79.9%**							21,480	26,553	**80.9%**	
	Italy, Men	8,647	10,325	**83.7%**	15,766	19,360	**81.4%**							24,413	29,685	**82.2%**	
	Slovenia, Women	1,838	1,957	**93.9%**	2,205	2,356	**93.6%**							4,043	4,313	**93.7%**	
	Slovenia, Men	2,110	2,228	**94.7%**	2,692	2,902	**92.8%**							4,802	5,130	**93.6%**	
	Spain, Women	1,770	1,871	**94.6%**	2,608	2,897	**90.0%**							4,378	4,768	**91.8%**	
	Spain, Men	2,037	2,298	**88.6%**	3,111	3,479	**89.4%**							5,148	5,777	**89.1%**	
	Total Women	**11,592**	**13,488**	**85.9%**	**18,522**	**22,386**	**82.7%**	**43**	**51**	**84.3%**				**30,157**	**35,925**	**83.9%**	
	Total Men	**12,856**	**14,922**	**86.2%**	**21,670**	**25,861**	**83.8%**	**66**	**73**	**90.4%**				**34,592**	**40,856**	**84.7%**	
	Total Women + Men	**24,448**	**28,410**	**86.1%**	**40,192**	**48,247**	**83.3%**	**109**	**124**	**87.9%**				**64,749**	**76,781**	**84.3%**	

Table 4.23.3. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Completion rate of follow-up colonoscopy (%)

Subsequent screening

Numerator (N) = Follow-up colonoscopy completed

Denominator (D) = Data on completion of follow-up colonoscopy available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	92	97	94.8%	161	175	92.0%	43	48	89.6%				296	320	92.5%	
	Belgium Wallonia + Brussels, Men	84	94	89.4%	157	168	93.5%	48	54	88.9%				289	316	91.5%	
	Finland, Women																
	Finland, Men																
	France, Women	4,365	4,460	97.9%	7,009	7,186	97.5%	2,828	2,926	96.7%				14,202	14,572	97.5%	
	France, Men	4,731	4,798	98.6%	7,228	7,407	97.6%	2,755	2,844	96.9%				14,714	15,049	97.8%	
	Sweden Stockholm Gotland, Women				348	367	94.8%							348	367	94.8%	
	Sweden Stockholm Gotland, Men				457	477	95.8%							457	477	95.8%	
	UK England, Women																
	UK England, Men																
	UK Scotland, Women	933	975	95.7%	1,313	1,403	93.6%	574	618	92.9%	149	156	95.5%	2,969	3,152	94.2%	
	UK Scotland, Men	1,333	1,372	97.2%	1,959	2,031	96.5%	778	798	97.5%	176	184	95.7%	4,246	4,385	96.8%	
	UK Wales, Women				425	444	95.7%	247	264	93.6%				672	708	94.9%	
	UK Wales, Men				704	729	96.6%	366	381	96.1%				1,070	1,110	96.4%	
	Total Women	**5,390**	**5,532**	**97.4%**	**9,256**	**9,575**	**96.7%**	**3,692**	**3,856**	**95.7%**	**149**	**156**	**95.5%**	**18,487**	**19,119**	**96.7%**	
	Total Men	**6,148**	**6,264**	**98.1%**	**10,505**	**10,812**	**97.2%**	**3,947**	**4,077**	**96.8%**	**176**	**184**	**95.7%**	**20,776**	**21,337**	**97.4%**	
	Total Women + Men	**11,538**	**11,796**	**97.8%**	**19,761**	**20,387**	**96.9%**	**7,639**	**7,933**	**96.3%**	**325**	**340**	**95.6%**	**39,263**	**40,456**	**97.1%**	
FIT	France Calvados, Women	83	90	92.2%	111	123	90.2%	42	43	97.7%				236	256	92.2%	
	France Calvados, Men	59	62	95.2%	95	101	94.1%	60	66	90.9%				214	229	93.4%	
	Italy, Women	7,236	7,894	91.7%	12,398	13,586	91.3%							19,634	21,480	91.4%	
	Italy, Men	8,116	8,647	93.9%	15,293	15,766	97.0%							23,409	24,413	95.9%	
	Slovenia, Women	1,817	1,838	98.9%	2,178	2,205	98.8%							3,995	4,043	98.8%	
	Slovenia, Men	2,095	2,110	99.3%	2,672	2,692	99.3%							4,767	4,802	99.3%	
	Spain, Women	1,635	1,770	92.4%	2,482	2,608	95.2%							4,117	4,378	94.0%	
	Spain, Men	2,003	2,037	98.3%	2,961	3,111	95.2%							4,964	5,148	96.4%	
	Total Women	**10,771**	**11,592**	**92.9%**	**17,169**	**18,522**	**92.7%**	**42**	**43**	**97.7%**				**27,982**	**30,157**	**92.8%**	
	Total Men	**12,273**	**12,856**	**95.5%**	**21,021**	**21,670**	**97.0%**	**60**	**66**	**90.9%**				**33,354**	**34,592**	**96.4%**	
	Total Women + Men	**23,044**	**24,448**	**94.3%**	**38,190**	**40,192**	**95.0%**	**102**	**109**	**93.6%**				**61,336**	**64,749**	**94.7%**	

Table 4.23.4. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Detection rate of adenomas (%)

Subsequent screening

Numerator (N) = Adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	32	3,723	0.9%	59	6,286	0.9%	15	1,872	0.8%				106	11,881	0.9%	
	Belgium Wallonia + Brussels, Men	35	3,499	1.0%	73	5,477	1.3%	26	1,643	1.6%				134	10,619	1.3%	
	Finland, Women				111	24,371	0.5%							111	24,371	0.5%	
	Finland, Men				187	19,117	1.0%							187	19,117	1.0%	
	France, Women	1,028	336,575	0.3%	2,074	439,934	0.5%	904	151,518	0.6%				4,006	928,027	0.4%	
	France, Men	1,890	262,271	0.7%	3,373	353,543	1.0%	1,303	121,574	1.1%				6,566	737,388	0.9%	
	Sweden Stockholm Gotland, Women				62	14,150	0.4%							62	14,150	0.4%	
	Sweden Stockholm Gotland, Men				136	10,815	1.3%							136	10,815	1.3%	
	UK England, Women				2,247	669,648	0.3%	919	216,149	0.4%				3,166	885,797	0.4%	
	UK England, Men				3,663	580,000	0.6%	1,450	193,092	0.8%				5,113	773,092	0.7%	
	UK Scotland, Women	227	90,344	0.3%	460	103,701	0.4%	201	41,098	0.5%	56	1,285	4.4%	944	236,428	0.4%	
	UK Scotland, Men	530	80,152	0.7%	932	92,160	1.0%	359	34,200	1.0%	99	1,282	7.7%	1,920	207,794	0.9%	
	UK Wales, Women				85	39,706	0.2%	40	17,772	0.2%				125	57,478	0.2%	
	UK Wales, Men				191	33,299	0.6%	88	15,882	0.6%				279	49,181	0.6%	
	Total Women	**1,287**	**430,642**	**0.3%**	**5,098**	**1,297,796**	**0.4%**	**2,079**	**428,409**	**0.5%**	**56**	**1,285**	**4.4%**	**8,520**	**2,158,132**	**0.4%**	
	Total Men	**2,455**	**345,922**	**0.7%**	**8,555**	**1,094,411**	**0.8%**	**3,226**	**366,391**	**0.9%**	**99**	**1,282**	**7.7%**	**14,335**	**1,808,006**	**0.8%**	
	Total Women + Men	**3,742**	**776,564**	**0.5%**	**13,653**	**2,392,207**	**0.6%**	**5,305**	**794,800**	**0.7%**	**155**	**2,567**	**6.0%**	**22,855**	**3,966,138**	**0.6%**	
FIT	France Calvados, Women	22	3,692	0.6%	40	5,130	0.8%	19	1,802	1.1%				81	10,624	0.8%	
	France Calvados, Men	22	2,702	0.8%	47	3,688	1.3%	35	1,307	2.7%				104	7,697	1.4%	
	Italy, Women	2,130	294,994	0.7%	4,468	398,270	1.1%							6,598	693,264	1.0%	
	Italy, Men	3,449	245,154	1.4%	7,219	336,874	2.1%							10,668	582,028	1.8%	
	Slovenia, Women	627	49,670	1.3%	948	47,808	2.0%							1,575	97,478	1.6%	
	Slovenia, Men	1,156	38,237	3.0%	1,664	37,089	4.5%							2,820	75,326	3.7%	
	Spain, Women	685	47,429	1.4%	1,167	55,851	2.1%							1,852	103,280	1.8%	
	Spain, Men	1,304	39,670	3.3%	1,973	45,205	4.4%							3,277	84,875	3.9%	
	Total Women	**3,464**	**395,785**	**0.9%**	**6,623**	**507,059**	**1.3%**	**19**	**1,802**	**1.1%**				**10,106**	**904,646**	**1.1%**	
	Total Men	**5,931**	**325,763**	**1.8%**	**10,903**	**422,856**	**2.6%**	**35**	**1,307**	**2.7%**				**16,869**	**749,926**	**2.2%**	
	Total Women + Men	**9,395**	**721,548**	**1.3%**	**17,526**	**929,915**	**1.9%**	**54**	**3,109**	**1.7%**				**26,975**	**1,654,572**	**1.6%**	

Table 4.23.5. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Detection rate of advanced adenomas (%)

Subsequent screening

Numerator (N) = Advanced adenomas detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	7	3,723	0.2%	19	6,286	0.3%	5	1,872	0.3%				31	11,881	0.3%	
	Belgium Wallonia + Brussels, Men	12	3,499	0.3%	31	5,477	0.6%	10	1,643	0.6%				53	10,619	0.5%	
	Finland, Women				17	24,371	0.1%							17	24,371	0.1%	
	Finland, Men				20	19,117	0.1%							20	19,117	0.1%	
	France, Women	547	336,575	0.2%	1,163	439,934	0.3%	489	151,518	0.3%				2,199	928,027	0.2%	
	France, Men	1,089	262,271	0.4%	2,044	353,543	0.6%	782	121,574	0.6%				3,915	737,388	0.5%	
	Sweden Stockholm Gotland, Women				18	14,150	0.1%							18	14,150	0.1%	
	Sweden Stockholm Gotland, Men				49	10,815	0.5%							49	10,815	0.5%	
	UK England, Women				449	669,648	0.1%	204	216,149	0.1%				653	885,797	0.1%	
	UK England, Men				1,103	580,000	0.2%	565	193,092	0.3%				1,668	773,092	0.2%	
	UK Scotland, Women	23	90,344	0.0%	32	103,701	0.0%	15	41,098	0.0%	7	1,285	0.5%	77	236,428	0.0%	
	UK Scotland, Men	58	80,152	0.1%	159	92,160	0.2%	68	34,200	0.2%	15	1,282	1.2%	300	207,794	0.1%	
	UK Wales, Women																
	UK Wales, Men																
	Total Women	**577**	**430,642**	**0.1%**	**1,698**	**1,258,090**	**0.1%**	**713**	**410,637**	**0.2%**	**7**	**1,285**	**0.5%**	**2,995**	**2,100,654**	**0.1%**	
	Total Men	**1,159**	**345,922**	**0.3%**	**3,406**	**1,061,112**	**0.3%**	**1,425**	**350,509**	**0.4%**	**15**	**1,282**	**1.2%**	**6,005**	**1,758,825**	**0.3%**	
	Total Women + Men	**1,736**	**776,564**	**0.2%**	**5,104**	**2,319,202**	**0.2%**	**2,138**	**761,146**	**0.3%**	**22**	**2,567**	**0.9%**	**9,000**	**3,859,479**	**0.2%**	
FIT	France Calvados, Women	13	3,692	0.4%	20	5,130	0.4%	8	1,802	0.4%				41	10,624	0.4%	
	France Calvados, Men	12	2,702	0.4%	28	3,688	0.8%	18	1,307	1.4%				58	7,697	0.8%	
	Italy, Women	1,052	294,994	0.4%	2,197	398,270	0.6%							3,249	693,264	0.5%	
	Italy, Men	1,779	245,154	0.7%	3,622	336,874	1.1%							5,401	582,028	0.9%	
	Slovenia, Women	357	49,670	0.7%	524	47,808	1.1%							881	97,478	0.9%	
	Slovenia, Men	680	38,237	1.8%	1,021	37,089	2.8%							1,701	75,326	2.3%	
	Spain, Women	365	47,429	0.8%	677	55,851	1.2%							1,042	103,280	1.0%	
	Spain, Men	809	39,670	2.0%	1,368	45,205	3.0%							2,177	84,875	2.6%	
	Total Women	**1,787**	**395,785**	**0.5%**	**3,418**	**507,059**	**0.7%**	**8**	**1,802**	**0.4%**				**5,213**	**904,646**	**0.6%**	
	Total Men	**3,280**	**325,763**	**1.0%**	**6,039**	**422,856**	**1.4%**	**18**	**1,307**	**1.4%**				**9,337**	**749,926**	**1.2%**	
	Total Women + Men	**5,067**	**721,548**	**0.7%**	**9,457**	**929,915**	**1.0%**	**26**	**3,109**	**0.8%**				**14,550**	**1,654,572**	**0.9%**	

Table 4.23.6. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

Detection Rate of colorectal cancers (/1,000)

Subsequent screening

Numerator (N) = Colorectal cancers detected

Denominator (D) = Individuals screened in the year with adequate test - test results available

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	‰	N	D	‰	N	D	‰	N	D	‰	N	D	‰	
gFOBT	Belgium Wallonia + Brussels, Women	3	3,723	**0.81**	7	6,286	**1.11**	4	1,872	**2.14**				14	11,881	**1.18**	
	Belgium Wallonia + Brussels, Men	2	3,499	**0.57**	12	5,477	**2.19**	4	1,643	**2.43**				18	10,619	**1.70**	
	Finland, Women				13	24,371	**0.53**							13	24,371	**0.53**	
	Finland, Men				17	19,117	**0.89**							17	19,117	**0.89**	
	France, Women	136	336,575	**0.40**	308	439,934	**0.70**	190	151,518	**1.25**				634	928,027	**0.68**	
	France, Men	207	262,271	**0.79**	548	353,543	**1.55**	290	121,574	**2.39**				1,045	737,388	**1.42**	
	Sweden Stockholm Gotland, Women				11	14,150	**0.78**							11	14,150	**0.78**	
	Sweden Stockholm Gotland, Men				9	10,815	**0.83**							9	10,815	**0.83**	
	UK England, Women				472	669,648	**0.70**	239	216,149	**1.11**				711	885,797	**0.80**	
	UK England, Men				845	580,000	**1.46**	451	193,092	**2.34**				1,296	773,092	**1.68**	
	UK Scotland, Women	38	90,344	**0.42**	87	103,701	**0.84**	68	41,098	**1.65**	13	1,285	**10.12**	206	236,428	**0.87**	
	UK Scotland, Men	72	80,152	**0.90**	152	92,160	**1.65**	79	34,200	**2.31**	13	1,282	**10.14**	316	207,794	**1.52**	
	UK Wales, Women				30	39,706	**0.76**	23	17,772	**1.29**				53	57,478	**0.92**	
	UK Wales, Men				56	33,299	**1.68**	38	15,882	**2.39**				94	49,181	**1.91**	
	Total Women	**177**	**430,642**	**0.41**	**928**	**1,297,796**	**0.72**	**524**	**428,409**	**1.22**	**13**	**1,285**	**10.12**	**1,642**	**2,158,132**	**0.76**	
	Total Men	**281**	**345,922**	**0.81**	**1,639**	**1,094,411**	**1.50**	**862**	**366,391**	**2.35**	**13**	**1,282**	**10.14**	**2,795**	**1,808,006**	**1.55**	
	Total Women + Men	**458**	**776,564**	**0.59**	**2,567**	**2,392,207**	**1.07**	**1,386**	**794,800**	**1.74**	**26**	**2,567**	**10.13**	**4,437**	**3,966,138**	**1.12**	
FIT	France Calvados, Women	4	3,692	**1.08**	6	5,130	**1.17**	4	1,802	**2.22**				14	10,624	**1.32**	
	France Calvados, Men	4	2,702	**1.48**	6	3,688	**1.63**	7	1,307	**5.36**				17	7,697	**2.21**	
	Italy, Women	171	294,994	**0.58**	386	398,270	**0.97**							557	693,264	**0.80**	
	Italy, Men	195	245,154	**0.80**	517	336,874	**1.53**							712	582,028	**1.22**	
	Slovenia, Women	36	49,670	**0.72**	74	47,808	**1.55**							110	97,478	**1.13**	
	Slovenia, Men	48	38,237	**1.26**	100	37,089	**2.70**							148	75,326	**1.96**	
	Spain, Women	30	47,429	**0.63**	83	55,851	**1.49**							113	103,280	**1.09**	
	Spain, Men	53	39,670	**1.34**	155	45,205	**3.43**							208	84,875	**2.45**	
	Total Women	**241**	**395,785**	**0.61**	**549**	**507,059**	**1.08**	**4**	**1,802**	**2.22**				**794**	**904,646**	**0.88**	
	Total Men	**300**	**325,763**	**0.92**	**778**	**422,856**	**1.84**	**7**	**1,307**	**5.36**				**1,085**	**749,926**	**1.45**	
	Total Women + Men	**541**	**721,548**	**0.75**	**1,327**	**929,915**	**1.43**	**11**	**3,109**	**3.54**				**1,879**	**1,654,572**	**1.14**	

Table 4.23.7. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

PPV of adenomas (%)

Subsequent screening

Numerator (N) = Adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	32	97	**33.0%**	59	175	**33.7%**	15	48	**31.3%**				106	320	**33.1%**	
	Belgium Wallonia + Brussels, Men	35	94	**37.2%**	73	168	**43.5%**	26	54	**48.1%**				134	316	**42.4%**	
	Finland, Women				111	441	**25.2%**							111	441	**25.2%**	
	Finland, Men				187	567	**33.0%**							187	567	**33.0%**	
	France, Women	1,028	4,667	**22.0%**	2,074	7,469	**27.8%**	904	3,050	**29.6%**				4,006	15,186	**26.4%**	
	France, Men	1,890	4,992	**37.9%**	3,373	7,707	**43.8%**	1,303	2,971	**43.9%**				6,566	15,670	**41.9%**	
	Sweden Stockholm Gotland, Women				62	367	**16.9%**							62	367	**16.9%**	
	Sweden Stockholm Gotland, Men				136	477	**28.5%**							136	477	**28.5%**	
	UK England, Women				2,247	7,333	**30.6%**	919	2,788	**33.0%**				3,166	10,121	**31.3%**	
	UK England, Men				3,663	9,743	**37.6%**	1,450	3,858	**37.6%**				5,113	13,601	**37.6%**	
	UK Scotland, Women	227	975	**23.3%**	460	1,403	**32.8%**	201	618	**32.5%**	56	156	**35.9%**	944	3,152	**29.9%**	
	UK Scotland, Men	530	1,372	**38.6%**	932	2,031	**45.9%**	359	798	**45.0%**	99	184	**53.8%**	1,920	4,385	**43.8%**	
	UK Wales, Women				85	458	**18.6%**	40	273	**14.7%**				125	731	**17.1%**	
	UK Wales, Men				191	752	**25.4%**	88	391	**22.5%**				279	1,143	**24.4%**	
	Total Women	**1,287**	**5,739**	**22.4%**	**5,098**	**17,646**	**28.9%**	**2,079**	**6,777**	**30.7%**	**56**	**156**	**35.9%**	**8,520**	**30,318**	**28.1%**	
	Total Men	**2,455**	**6,458**	**38.0%**	**8,555**	**21,445**	**39.9%**	**3,226**	**8,072**	**40.0%**	**99**	**184**	**53.8%**	**14,335**	**36,159**	**39.6%**	
	Total Women + Men	**3,742**	**12,197**	**30.7%**	**13,653**	**39,091**	**34.9%**	**5,305**	**14,849**	**35.7%**	**155**	**340**	**45.6%**	**22,855**	**66,477**	**34.4%**	
FIT	France Calvados, Women	22	90	**24.4%**	40	123	**32.5%**	19	43	**44.2%**				81	256	**31.6%**	
	France Calvados, Men	22	62	**35.5%**	47	101	**46.5%**	35	66	**53.0%**				104	229	**45.4%**	
	Italy, Women	2,130	7,894	**27.0%**	4,468	13,586	**32.9%**							6,598	21,480	**30.7%**	
	Italy, Men	3,449	8,647	**39.9%**	7,219	15,766	**45.8%**							10,668	24,413	**43.7%**	
	Slovenia, Women	627	1,838	**34.1%**	948	2,205	**43.0%**							1,575	4,043	**39.0%**	
	Slovenia, Men	1,156	2,110	**54.8%**	1,664	2,692	**61.8%**							2,820	4,802	**58.7%**	
	Spain, Women	685	1,770	**38.7%**	1,167	2,608	**44.7%**							1,852	4,378	**42.3%**	
	Spain, Men	1,304	2,037	**64.0%**	1,973	3,111	**63.4%**							3,277	5,148	**63.7%**	
	Total Women	**3,464**	**11,592**	**29.9%**	**6,623**	**18,522**	**35.8%**	**19**	**43**	**44.2%**				**10,106**	**30,157**	**33.5%**	
	Total Men	**5,931**	**12,856**	**46.1%**	**10,903**	**21,670**	**50.3%**	**35**	**66**	**53.0%**				**16,869**	**34,592**	**48.8%**	
	Total Women + Men	**9,395**	**24,448**	**38.4%**	**17,526**	**40,192**	**43.6%**	**54**	**109**	**49.5%**				**26,975**	**64,749**	**41.7%**	

Table 4.23.8. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

PPV of advanced adenomas (%)

Subsequent screening

Numerator (N) = Advanced adenomas detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	7	97	**7.2%**	19	175	**10.9%**	5	48	**10.4%**				31	320	**9.7%**	
	Belgium Wallonia + Brussels, Men	12	94	**12.8%**	31	168	**18.5%**	10	54	**18.5%**				53	316	**16.8%**	
	Finland, Women				17	441	**3.9%**							17	441	**3.9%**	
	Finland, Men				20	567	**3.5%**							20	567	**3.5%**	
	France, Women	547	4,667	**11.7%**	1,163	7,469	**15.6%**	489	3,050	**16.0%**				2,199	15,186	**14.5%**	
	France, Men	1,089	4,992	**21.8%**	2,044	7,707	**26.5%**	782	2,971	**26.3%**				3,915	15,670	**25.0%**	
	Sweden Stockholm Gotland, Women				18	367	**4.9%**							18	367	**4.9%**	
	Sweden Stockholm Gotland, Men				49	477	**10.3%**							49	477	**10.3%**	
	UK England, Women				449	7,333	**6.1%**	204	2,788	**7.3%**				653	10,121	**6.5%**	
	UK England, Men				1,103	9,743	**11.3%**	565	3,858	**14.6%**				1,668	13,601	**12.3%**	
	UK Scotland, Women	23	975	**2.4%**	32	1,403	**2.3%**	15	618	**2.4%**	7	156	**4.5%**	77	3,152	**2.4%**	
	UK Scotland, Men	58	1,372	**4.2%**	159	2,031	**7.8%**	68	798	**8.5%**	15	184	**8.2%**	300	4,385	**6.8%**	
	UK Wales, Women																
	UK Wales, Men																
	Total Women	**577**	**5,739**	**10.1%**	**1,698**	**17,188**	**9.9%**	**713**	**6,504**	**11.0%**	**7**	**156**	**4.5%**	**2,995**	**29,587**	**10.1%**	
	Total Men	**1,159**	**6,458**	**17.9%**	**3,406**	**20,693**	**16.5%**	**1,425**	**7,681**	**18.6%**	**15**	**184**	**8.2%**	**6,005**	**35,016**	**17.1%**	
	Total Women + Men	**1,736**	**12,197**	**14.2%**	**5,104**	**37,881**	**13.5%**	**2,138**	**14,185**	**15.1%**	**22**	**340**	**6.5%**	**9,000**	**64,603**	**13.9%**	
FIT	France Calvados, Women	13	90	**14.4%**	20	123	**16.3%**	8	43	**18.6%**				41	256	**16.0%**	
	France Calvados, Men	12	62	**19.4%**	28	101	**27.7%**	18	66	**27.3%**				58	229	**25.3%**	
	Italy, Women	1,052	7,894	**13.3%**	2,197	13,586	**16.2%**							3,249	21,480	**15.1%**	
	Italy, Men	1,779	8,647	**20.6%**	3,622	15,766	**23.0%**							5,401	24,413	**22.1%**	
	Slovenia, Women	357	1,838	**19.4%**	524	2,205	**23.8%**							881	4,043	**21.8%**	
	Slovenia, Men	680	2,110	**32.2%**	1,021	2,692	**37.9%**							1,701	4,802	**35.4%**	
	Spain, Women	365	1,770	**20.6%**	677	2,608	**26.0%**							1,042	4,378	**23.8%**	
	Spain, Men	809	2,037	**39.7%**	1,368	3,111	**44.0%**							2,177	5,148	**42.3%**	
	Total Women	**1,787**	**11,592**	**15.4%**	**3,418**	**18,522**	**18.5%**	**8**	**43**	**18.6%**				**5,213**	**30,157**	**17.3%**	
	Total Men	**3,280**	**12,856**	**25.5%**	**6,039**	**21,670**	**27.9%**	**18**	**66**	**27.3%**				**9,337**	**34,592**	**27.0%**	
	Total Women + Men	**5,067**	**24,448**	**20.7%**	**9,457**	**40,192**	**23.5%**	**26**	**109**	**23.9%**				**14,550**	**64,749**	**22.5%**	

Table 4.23.9. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol

PPV of colorectal cancers (%)

Subsequent screening

Numerator (N) = Colorectal cancers detected

Denominator (D) = Follow-up colonoscopy performed

Screening test	Member state, Gender	50-59 years			60-69 years			70-74 years			75-79 years			Total			Notes
		N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	
gFOBT	Belgium Wallonia + Brussels, Women	3	97	3.1%	7	175	4.0%	4	48	8.3%				14	320	4.4%	
	Belgium Wallonia + Brussels, Men	2	94	2.1%	12	168	7.1%	4	54	7.4%				18	316	5.7%	
	Finland, Women				13	441	2.9%							13	441	2.9%	
	Finland, Men				17	567	3.0%							17	567	3.0%	
	France, Women	136	4,667	2.9%	308	7,469	4.1%	190	3,050	6.2%				634	15,186	4.2%	
	France, Men	207	4,992	4.1%	548	7,707	7.1%	290	2,971	9.8%				1,045	15,670	6.7%	
	Sweden Stockholm Gotland, Women				11	367	3.0%							11	367	3.0%	
	Sweden Stockholm Gotland, Men				9	477	1.9%							9	477	1.9%	
	UK England, Women				472	7,333	6.4%	239	2,788	8.6%				711	10,121	7.0%	
	UK England, Men				845	9,743	8.7%	451	3,858	11.7%				1,296	13,601	9.5%	
	UK Scotland, Women	38	975	3.9%	87	1,403	6.2%	68	618	11.0%	13	156	8.3%	206	3,152	6.5%	
	UK Scotland, Men	72	1,372	5.2%	152	2,031	7.5%	79	798	9.9%	13	184	7.1%	316	4,385	7.2%	
	UK Wales, Women				30	458	6.6%	23	273	8.4%				53	731	7.3%	
	UK Wales, Men				56	752	7.4%	38	391	9.7%				94	1,143	8.2%	
	Total Women	**177**	**5,739**	**3.1%**	**928**	**17,646**	**5.3%**	**524**	**6,777**	**7.7%**	**13**	**156**	**8.3%**	**1,642**	**30,318**	**5.4%**	
	Total Men	**281**	**6,458**	**4.4%**	**1,639**	**21,445**	**7.6%**	**862**	**8,072**	**10.7%**	**13**	**184**	**7.1%**	**2,795**	**36,159**	**7.7%**	
	Total Women + Men	**458**	**12,197**	**3.8%**	**2,567**	**39,091**	**6.6%**	**1,386**	**14,849**	**9.3%**	**26**	**340**	**7.6%**	**4,437**	**66,477**	**6.7%**	
FIT	France Calvados, Women	4	90	4.4%	6	123	4.9%	4	43	9.3%				14	256	5.5%	
	France Calvados, Men	4	62	6.5%	6	101	5.9%	7	66	10.6%				17	229	7.4%	
	Italy, Women	171	7,894	2.2%	386	13,586	2.8%							557	21,480	2.6%	
	Italy, Men	195	8,647	2.3%	517	15,766	3.3%							712	24,413	2.9%	
	Slovenia, Women	36	1,838	2.0%	74	2,205	3.4%							110	4,043	2.7%	
	Slovenia, Men	48	2,110	2.3%	100	2,692	3.7%							148	4,802	3.1%	
	Spain, Women	30	1,770	1.7%	83	2,608	3.2%							113	4,378	2.6%	
	Spain, Men	53	2,037	2.6%	155	3,111	5.0%							208	5,148	4.0%	
	Total Women	**241**	**11,592**	**2.1%**	**549**	**18,522**	**3.0%**	**4**	**43**	**9.3%**				**794**	**30,157**	**2.6%**	
	Total Men	**300**	**12,856**	**2.3%**	**778**	**21,670**	**3.6%**	**7**	**66**	**10.6%**				**1,085**	**34,592**	**3.1%**	
	Total Women + Men	**541**	**24,448**	**2.2%**	**1,327**	**40,192**	**3.3%**	**11**	**109**	**10.1%**				**1,879**	**64,749**	**2.9%**	

8. Figures and tables

8.7. European Union performance indicators and references standards

Table 7.1 European Union performance indicators and reference standards			
Breast Cancer Screening (50-69 years old)			
Performance indicators	**EU mean**	**Acceptable standard**	**Desirable standard**
Invitation coverage (by Eurostat 2013 population)	78.9%		
Examination coverage (by Eurostat 2013 population)	49.2%		
Participation rate	60.2%	70.0%	75.0%
Further asseessment rate*	4.4%	<5.0%	<3.0%
Further assessment participation rate*	97.3%		
Treatment referral rate*	6/1,000		
Detection rate of invasive cancer*	4.6/1,000		
Detection rate of CIS*	0.9/1,000		
% of CIS of all cancers*	16.9%	>10.0%	10.0-20.0%
Positive predictive value to detect CIS+ disease*	11.4%		
Benign open biopsy rate*	0.7/1,000		
Benign / malignant ratio*	0.13	<0.5	<0.25
Cervical Cancer Screening (30-59 years old)			
Performance indicators	**EU mean**	**Acceptable standard**	**Desirable standard**
Invitation coverage (by Eurostat 2013 population)	59.2%		
Examination coverage (by Eurostat 2013 population)	29.8%		
Participation rate	50.7%	70%	>85%
Colposcopy referral	2.1%		
Colposcopy participation	71.4%		
Detection of CIN2+	4.4/1,000		
Detection of CIN3+	2.8/1,000		
Positive predictive value for CIN2+	33.8%		
Positive predictive value for CIN3+	22.9%		
Colorectal Cancer Screening			
Performance indicators	**EU mean**	**Acceptable standard**	**Desirable standard**
Invitation coverage (by Eurostat 2013 population, age 50-74)[1]	32.6%		
Examination coverage (by Eurostat 2013 population, age 50-74)[2]	14.0%		
Participation rate[3]	38.2%	45.0%	65.0%
Further assessment participation rate[3]	74.5%	85.0%	90.0%
Completion rate of follow-up colonoscopy[3]	94.9%	90.0%	95.0%

*Subsequent screening

[1] As described in the text, most EU MSs are adopting narrower age ranges, based on cost-effectiveness considerartions and availability of resources. The actual figures for invitation coverage over the target populations of population based programmes is 62.0%.

[2] As described in the text, most EU MSs are adopting narrower age ranges, based on cost-effectiveness considerartions and availability of resources. The actual figures for invitation coverage over the target populations of population based programmes is 26.2%.

[3] Programme age range.

9. Annexures

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Burden of breast, cervical and colorectal cancer in the European Union

Figure 1.1.1. Age-standardized incidence rates of **breast cancer** (/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

Figure 1.1.2. Age-standardized mortality rates of **breast cancer** (/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

Figure 1.2.1. Age-standardized incidence rates of **cervical cancer** (/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

Figure 1.2.2. Age-standardized mortality rates of **cervical cancer** (/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

Figure 1.3.1. Age-standardized incidence rates of **colorectal cancer** in women (/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

Figure 1.3.2. Age-standardized incidence rates of **colorectal cancer** in men (/100,000 men-years) in the 28 members states of the EU (estimates for 2012; direct standardization using the European reference population)

Figure 1.3.3. Age-standardized mortality rates of **colorectal cancer** in women (/100,000 women-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

Figure 1.3.4. Age-standardized mortality rates of **colorectal cancer** in men (/100,000 men-years) in the 28 member states of the EU (estimates for 2012; direct standardization using the European reference population)

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Table 4.19.2. Follow-up colonoscopy participation rate (%)

Table 4.19.3. Completion rate follow-up colonoscopy (%)

Table 4.19.4. Detection Rate of adenomas (/100)

Table 4.19.5. Detection Rate of advanced adenomas (/100)

Table 4.19.6. Detection Rate of colorectal cancers (/1000)

Table 4.19.7. PPV of adenomas (%)

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Tables 4.20. Colorectal cancer screening programmes in the EU: Other performance indicators by country, age, gender and screening protocol (Endoscopy)

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Table 4.21.4. Detection Rate of adenomas (/100)

Table 4.21.5. Detection Rate of advanced adenomas (/100)

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Table 4.23.3. Completion rate of follow-up colonoscopy (%) - subsequent screening

Table 4.23.4. Detection Rate of adenomas (/100) - subsequent screening

Table 4.23.5. Detection Rate of advanced adenomas (/100) - subsequent screening

Table 4.23.6. Detection Rate of colorectal cancers (/1000) - subsequent screening

Table 4.23.7. PPV of adenomas (%) - subsequent screening

Table 4.23.8. PPV of advanced adenomas (%) - subsequent screening

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The European means of the programme indicators

Table 7.1 European Union performance indicators and reference standards

9.3. Council Recommendation of 2 December 2003 on Cancer Screening

COUNCIL RECOMMENDATION
of 2 December 2003
on cancer screening

(2003/878/EC)

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 152(4), second subparagraph, thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

Whereas:

(1) Article 152 of the Treaty provides that Community action is to complement national policies and be directed towards improving public health, preventing human illness and diseases, and obviating sources of danger to human health. Such action shall cover the fight against the major health scourges, by promoting research into their causes, their transmission and their prevention, as well as health information and education. Community action in the field of public health shall fully respect the responsibilities of the Member States for the organisation and delivery of health services and medical care.

(2) Further development of cancer screening programmes should be implemented in accordance with national law and national and regional responsibilities for the organisation and delivery of health services and medical care.

(3) Cancer is a major disease and cause of death throughout Europe, including the future Member States. An estimated number of 1 580 096 new cancer cases, excluding non-melanoma skin cancer, occurred in the European Union in 1998. Of these, 1,4 % were cervical cancers, 13 % breast cancers, 14 % colorectal cancers and 9 % prostate cancers. Cervical and breast cancer constituted 3 % and 29 %, respectively, of new cancers in women. Prostate cancer constituted 17 % of new cancers in men.

(4) Principles for screening as a tool for the prevention of chronic non-communicable diseases were published by the World Health Organisation in 1968 and by the Council of Europe in 1994. These two documents form, together with the current best practice in each of the cancer screening fields, the basis for the present recommendations.

(5) Additionally, these recommendations are based on the 'Recommendations on cancer screening' of the Advisory Committee on Cancer Prevention together with the experience gathered under the different actions sustained under the Europe against Cancer programme where European collaboration has helped, for example, high quality cancer screening programmes to provide efficient European guidelines of best practice and to protect the population from poor quality screening.

(6) Important factors which have to be assessed before a population-wide implementation is decided upon include, *inter alia*, the frequency and interval of the application of the screening test as well as other national or regional epidemiological specificities.

(7) Screening allows detection of cancers at an early stage of invasiveness or possibly even before they become invasive. Some lesions can then be treated more effectively and the patients can expect to be cured. The main indicator for the effectiveness of screening is a decrease in disease-specific mortality. As in the case of cervical cancer, cancer precursors are detected, a reduction in cervical cancer incidence can be considered a very helpful indicator.

(8) Evidence exists concerning the efficacy of screening for breast cancer and colorectal cancer, derived from randomised trials, and for cervical cancer, derived from observational studies.

(9) Screening is, however, the testing for diseases of people for which no symptoms have been detected. In addition to its beneficial effect on the disease-specific mortality, screening can also have negative side effects for the screened population. Healthcare providers should be aware of all the potential benefits and risks of screening for a given cancer site before embarking on new population-based cancer screening programmes. Furthermore, for the informed public of today, these benefits and risks need to be presented in a way that allows individual citizens to decide on participation in the screening programmes for themselves.

(10) Ethical, legal, social, medical, organisational and economic aspects have to be considered before decisions can be made on the implementation of cancer screening programmes.

(11) Due account should be taken of specific needs of persons who may be at higher cancer risk for particular reasons (e.g. biological, genetic, lifestyle and environmental, including occupational).

(12) The public health benefits and cost efficiency of a screening programme are achieved if the programme is implemented systematically, covering the whole target population and following best-practice guidelines.

(13) The cost-effectiveness of cancer screening depends on several factors such as epidemiology, and healthcare organisation and delivery.

(14) Systematic implementation requires an organisation with a call/recall system and with quality assurance at all levels, and an effective and appropriate diagnostic, treatment and after-care service following evidence-based guidelines.

(15) Centralised data systems, including a list of all categories of persons to be targeted by the screening programme and data on all screening tests, assessment and final diagnoses, are needed to run organised screening programmes.

(16) All procedures for collecting, storing, transmitting and analysing data in the medical registers involved must be in full compliance with the level of protection referred to in Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data [1], as well as in full compliance with the relevant provisions of Member States on the management and processing of health data in accordance with Article 8 of the Directive.

(17) Quality screening includes analysis of the process and outcome of the screening and rapid reporting of these results to the population and screening providers.

(18) This analysis is facilitated if the screening database can be linked to cancer registries and mortality databases.

(19) Adequate training of personnel is a prerequisite for high quality screening.

(20) Specific performance indicators have been established for cancer screening tests. These should be monitored regularly.

(21) Adequate human and financial resources should be available in order to assure the appropriate organisation and quality control in all the Member States.

(22) Action should be taken to ensure equal access to screening taking due account of the possible need to target particular socioeconomic groups.

(23) It is an ethical, legal and social prerequisite that cancer screening should only be offered to fully informed people with no symptoms if the screening is proved to decrease disease-specific mortality, if the benefits and risks are well known, and if the cost-effectiveness of the screening is acceptable.

(24) The screening methods which presently meet these strict prerequisites are listed in the Annex.

(25) No screening test other than those listed in the Annex is scientifically justified to be offered to people with no symptoms in an organised population-based programme before it has been shown in randomised controlled trials to decrease disease-specific mortality in particular.

(26) The screening tests listed in the Annex can only be offered on a population basis in organised screening programmes with quality assurance at all levels, if good information about benefits and risks, adequate resources for screening, follow-up with complementary diagnostic procedures and, if necessary, treatment of those with a positive screening test are available.

(27) The introduction of the recommended screening tests in the Annex, which have demonstrated their efficacy, should be seriously considered, the decision being based on available professional expertise and priority-setting for healthcare resources in each Member State.

(28) Once there is evidence that a new screening test is effective, evaluation of modified tests may be possible using other epidemiologically validated surrogate endpoints if the predictive value of these endpoints is established.

(29) Screening methodologies are subject to ongoing development. The application of recommended screening methodologies should therefore be accompanied by simultaneous assessments of the quality, applicability and cost-effectiveness of new methods if available epidemiological data justify this. In fact, the ongoing work may lead to new methods, which could ultimately replace or complement the tests listed in the Annex or be applicable to other types of cancer,

[1] OJ L 281, 23.11.1995, p. 31.

HEREBY RECOMMENDS THAT MEMBER STATES:

1. Implementation of cancer screening programmes

(a) offer evidence-based cancer screening through a systematic population-based approach with quality assurance at all appropriate levels. The tests which should be considered in this context are listed in the Annex;

(b) implement screening programmes in accordance with European guidelines on best practice where they exist and facilitate the further development of best practice for high quality cancer screening programmes on a national and, where appropriate, regional level;

(c) ensure that the people participating in a screening programme are fully informed about the benefits and risks;

(d) ensure that adequate complementary diagnostic procedures, treatment, psychological support and after-care following evidence-based guidelines of those with a positive screening test are provided for;

(e) make available human and financial resources in order to assure appropriate organisation and quality control;

(f) assess and take decisions on the implementation of a cancer screening programme nationally or regionally depending on the disease burden and the healthcare resources available, the side effects and cost effects of cancer screening, and experience from scientific trials and pilot projects;

(g) set up a systematic call/recall system and quality assurance at all appropriate levels, together with an effective and appropriate diagnostic and treatment and after-care service following evidence-based guidelines;

(h) ensure that due regard is paid to data protection legislation, particularly as it applies to personal health data, prior to implementing cancer screening programmes.

2. Registration and management of screening data

(a) make available centralised data systems needed to run organised screening programmes;

(b) ensure by appropriate means that all persons targeted by the screening programme are invited, by means of a call/recall system, to take part in the programme;

(c) collect, manage and evaluate data on all screening tests, assessment and final diagnoses;

(d) collect, manage and evaluate the data in full accordance with relevant legislation on personal data protection.

3. Monitoring

(a) regularly monitor the process and outcome of organised screening and report these results quickly to the public and the personnel providing the screening;

(b) adhere to the standards defined by the European Network of Cancer Registries in establishing and maintaining the screening databases in full accordance with relevant legislation on personal data protection;

(c) monitor the screening programmes at adequate intervals.

4. Training

adequately train personnel at all levels to ensure that they are able to deliver high quality screening.

5. Compliance

(a) seek a high level of compliance, based on fully informed consent, when organised screening is offered;

(b) take action to ensure equal access to screening taking due account of the possible need to target particular socioeconomic groups.

6. Introduction of novel screening tests taking into account international research results

(a) implement new cancer screening tests in routine healthcare only after they have been evaluated in randomised controlled trials;

(b) run trials, in addition to those on screening-specific parameters and mortality, on subsequent treatment procedures, clinical outcome, side effects, morbidity and quality of life;

(c) assess level of evidence concerning effects of new methods by pooling of trial results from representative settings;

(d) consider the introduction into routine healthcare of potentially promising new screening tests, which are currently being evaluated in randomised controlled trials, once the evidence is conclusive and other relevant aspects, such as cost-effectiveness in the different healthcare systems, have been taken into account;

(e) consider the introduction into routine healthcare of potentially promising new modifications of established screening tests, once the effectiveness of the modification has been successfully evaluated, possibly using other epidemiologically validated surrogate endpoints.

7. Implementation report and follow-up

   report to the Commission on the implementation of this Recommendation within three years of its adoption and subsequently at the request of the Commission with a view to contributing to the follow-up of this Recommendation at Community level.

HEREBY INVITES THE COMMISSION:

1. To report on the implementation of cancer screening programmes, on the basis of the information provided by Member States, not later than the end of the fourth year after the date of adoption of this Recommendation, to consider the extent to which the proposed measures are working effectively, and to consider the need for further action.

2. To encourage cooperation between Member States in research and exchange of best practices as regards cancer screening with a view to developing and evaluating new screening methods or improving existing ones.

3. To support European research on cancer screening including the development of new guidelines and the updating of existing guidelines for cancer screening.

Done at Brussels, 2 December 2003.

For the Council

The President

R. MARONI

ANNEX

SCREENING TESTS WHICH FULFIL THE REQUIREMENTS OF THE RECOMMENDATION (*):

— pap smear screening for cervical cancer precursors starting not before the age of 20 and not later than the age of 30;

— mammography screening for breast cancer in women aged 50 to 69 in accordance with European guidelines on quality assurance in mammography;

— faecal occult blood screening for colorectal cancer in men and women aged 50 to 74.

(*) The indicated age ranges are to be understood as maximum ranges; subject to national epidemiological evidence and prioritisation, smaller age ranges may be appropriate.

9.4. Data collection tools

9.4.1. Breast cancer screening questionnaire

Country/period of data collection

0.1	Date of data entry	DATE
0.2	Country name	TEXT
0.3	Name of region or geographical area (if reporting only part of the country)	TEXT
0.4	Notes	TEXT

Identification of responder

1.1	Name	TEXT
1.2	Organisation	TEXT
1.3	E-mail Address	TEXT
1.4	Additional e-mail address	TEXT
1.5	Phone number	TEXT
1.6	Additional phone number	TEXT
1.7	Fax number	TEXT
1.8	Occupational or professional activity (e.g. management, type of health profession, statistics, epidemiology, etc.)	TEXT
1.9	Position of responder in organisation	TEXT
1.10	Notes	TEXT

Programme and policy

2.1	Programme status	• Planning phase • Pilot phase • Rollout ongoing • Rollout complete (90% of the eligible population in the country or region served by a respective programme have been invited at least once and all elements of the screening process are fully functional)
2.2	Year screening started	NUMBER
2.3	Type of screening programme (if both population-based and opportunistic, please fill in two separate questionnaires, one for each)	• Population-based, organized screening • Opportunistic screening • No programme at all
2.4	Please describe the levels at which your programme is managed (national and/or regional/local level) and the activities managed at each level.	TEXT
2.5	Does the country/region have a public	YES / NO

	screening policy?	
2.6	How is it documented?	• In a law • In an official recommendation, decision or directive
2.7	Specify the source, including a reference to a web link (URL) if available	TEXT
2.8	At what level is the screening programme administered?	• National • Regional • Local • Other
2.9	Is there a team responsible for implementing the screening policy?	YES / NO
2.10	Is the team responsible for coordinating delivery of the service?	YES / NO
2.11	Is the team responsible for maintaining requisite quality?	YES / NO
2.12	Is the team responsible for reporting performance and results?	YES / NO
2.13	How is the programme funded?	• Public • Private • Both public and private (i.e. mixed)
2.14	Please specify	TEXT
2.15	Are government funds a source of financing?	YES / NO
2.16	Is there only one national channel for the whole activity or several channels (e.g. one channel for non-population-based e.g. reimbursements, and one or many for the programme)?	• Only one channel • Several channels
2.17	Is health insurance a source of funding?	YES / NO
2.18	Is charity a source of funding?	YES / NO
2.19	Are there other sources of funding?	YES / NO
2.20	Please specify the other sources of funding	TEXT
2.21	Notes	TEXT
Data collection and analysis		
3.1	Are there screening registers at the REGIONAL or LOCAL level (for collection, management and analysis of screening data)?	YES / NO
3.2	Number of regional / local screening	NUMBER

registers

3.3	Are there screening registers at the NATIONAL level (for collection, management and analysis of screening data)?	YES / NO
3.4	Are data at the national collecting center collected as aggregated data?	YES / NO
3.5	Are data at the national collecting center collected as individual data?	YES / NO
3.6	Are data regarding opportunistic and invitational tests stored in the same manner?	YES / NO
3.7	Are screening data linked with cancer registries?	YES / NO
3.8	On a regular basis?	YES / NO
3.9	How often?	TEXT
3.10	For which purposes?	TEXT
3.11	Are reports published?	YES / NO
3.12	Please briefly describe and send a copy or the URL	TEXT
3.35	Notes	TEXT

Quality control & reporting

4.1	Is there any system of quality control of data collection?	YES / NO
4.2	Does the system produce routine feedbacks on data inconsistencies?	YES / NO
4.3	Are screening monitoring results produced?	YES / NO
4.4	On a regular basis?	YES / NO
4.5	How often?	TEXT
4.6	For which purposes?	TEXT
4.7	Are reports published?	YES / NO
4.8	Please briefly describe and send a copy or the URL	TEXT
4.9	As a result of collecting and analyzing screening programme data, have changes been made to the screening programme, and when were they made?	TEXT
4.10	Notes	TEXT

Invitation, type of test and screening interval

5.1	Does your programme issue individual invitations?	YES / NO
5.2	How are people invited?	TEXT
5.3	What institution or organization is responsible for sending invitations and what database(s) is/are used as the source(s) of data for invitations?	TEXT
5.4	How do you avoid excessive opportunistic screening?	TEXT
5.5	Are opportunistic and invitational screening integrated into the screening programme monitoring and invitation system?	YES / NO
5.6	Does the programme invite all women in the eligible target population or exclude those who have recently been screened opportunistically?	TEXT
5.7	What does the invitation include?	• A pre-fixed, modifiable appointment • An invitation to get in touch to organise an appointment • Other
5.8	Specify	TEXT
5.9	Does your programme consider eligibility or exclusion criteria other than age, gender and geographical area?	YES / NO
5.10	Describe these eligibility criteria	TEXT
5.11	Age group targeted	RANGE
5.12	Do the information you provided above apply to the entire target population, with no exceptions, e.g. for certain regions?	YES / NO
5.13	Please explain	TEXT
5.14	Screening interval in months, according to screening protocols (Ex. for 2 years, use 24 months)	NUMBER
5.15	Is the interval different by age group or in certain regions?	YES / NO
5.16	Please explain	TEXT
5.17	Is mammography the only screening test in all cases?	YES / NO
5.18	Type of test(s) e.g. clinical breast exam (specify if alternative or additional to	TEXT

	mammography)	
5.19	Specify % of screening examinations for which alternative or additional screening tests are applied	NUMBER
5.20	Views	• 2 views, always • 2 views at the first screen, 1 at the subsequent screening examinations (according to the radiologist's opinion) • Other modality (e.g. 1 view always)
5.21	Please describe the modality	TEXT
5.22	Do you measure breast density routinely?	YES / NO
5.23	How the breast density is measured?	• Automated • By the judgment of radiologist
5.24	Do you inform women with dense breast?	YES / NO
5.25	Does the screening protocol change according to breast density?	YES / NO
5.26	Describe how the screening protocol changes	TEXT
5.27	Is digital mammography always used?	YES / NO
5.28	% of screening tests performed with digital mammogram	NUMBER
5.29	Mammogram reading: double reading, always?	YES / NO
5.30	% of screening tests double read	TEXT
5.31	Notes	TEXT
Further assessment		
6.1	Do programmes actively invite/recall for further assessment if the screening test is postive?	YES / NO
6.2	Is further assessment always on recall (a different day than the screening day)?	YES / NO
6.3	Outline the process of further assessment (including the examinations performed) and estimate the percentage of screened women involved in each step in the process	TEXT
6.4	Intermediate mammogram or short-term recall	• Occasionally, after screening only • Occasionally, after further assessment only • Occasionally, after both • Other

6.5	Specify	TEXT
6.6	Notes	TEXT

Follow-up

7.1	Does the screening programme invite to screening after a precancer or cancer diagnosis?	YES / NO
7.2	Is the ordinary screening protocol applied? (same as women without such history)	YES / NO
7.3	Please describe the post-treatment follow-up protocol and note if if/when women are returned to routine screening	TEXT
7.4	Notes	TEXT

Monetary costs, cost effectiveness and equity

8.8	Is in principle the screening test free of charge (no copayment) for the screenee?	YES / NO
8.9	Is in principle the assessment free of charge (neither full payment nor copayment) for the screenee?	YES / NO
8.10	Are any of the assessment costs reimbursed/covered by public sources?	YES / NO
8.11	Are there exceptions to what is indicated in the answers to the previous questions?	YES / NO
8.12	Describe	TEXT
8.13	Have you studied screening costs or cost-effectiveness in your country/region?	YES / NO
8.14	Specify the source of the publication	TEXT
8.15	What cost has been studied (type of cost and amount in euros)?	TEXT
8.16	Are you aware of any population group not covered by screening?	YES / NO
8.17	Describe	TEXT
8.18	Is participation rate periodically analysed according to socio-economic status, education or ethnicity?	YES / NO
8.19	Describe	TEXT
8.20	Have barriers to participation been studied and identified or has any kind if intervention to reduce inequalities been conducted?	YES / NO
8.21	Describe and provide references as PDF	TEXT

	copies	
8.22	Notes	TEXT

Quality of life and ethical issues

9.1	Has quality of life been studied in relation to screening, assessment or referral?	YES / NO
9.2	Describe	TEXT
9.3	Do you require signing informed consent to participate in screening?	YES / NO
9.4	Describe	TEXT
9.5	Do you provide written information on benefits and harms of screening at the time of invitation or examination?	YES / NO
9.6	Describe	TEXT
9.7	Notes	TEXT

9.4.2. Breast cancer screening tables

Table 1 Population

Country/Region

Index year

	A	B		
	Target population	**Screening interval in years**	**Annual target population**	< Total target population ÷ screening intervals
40-44				
45-49				
50-54				
55-59				
60-64				
65-69				
70-74				
75-79				
Unknown *				
Total	**0**		0	

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Table 2 Screening tests

	C	D	E
	Individuals personally invited in	**Individuals screened of invited in**	**Individuals screened in**
40-44			
45-49			
50-54			
55-59			
60-64			
65-69			
70-74			
75-79			
Unknown *			
Total	**0**	**0**	**0**
	^ Invited between Jan 1 - Dec 31,	**^ Screened between Jan 1, - June 30, 1**	**^ Screened between Jan 1 - Dec 31, regardless of when invited**

Participation rate

	Individuals screened of invited in	**Individuals personally invited in**	**%**
40-44	0	0	
45-49	0	0	
50-54	0	0	
55-59	0	0	
60-64	0	0	
65-69	0	0	
70-74	0	0	
75-79	0	0	
Unknown *	0	0	
Total	**0**	**0**	

Invitation coverage

	Individuals personally invited in	**Target population ÷ screening interval**	**%**
40-44	0		
45-49	0		
50-54	0		
55-59	0		
60-64	0		
65-69	0		
70-74	0		
75-79	0		
Unknown *	0		
Total	**0**	0	

Examination coverage

	Individuals screened of invited in	**Target population ÷ screening interval**	**%**
40-44	0		
45-49	0		
50-54	0		
55-59	0		
60-64	0		
65-69	0		
70-74	0		
75-79	0		
Unknown *	0		
Total	0	0	

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Table 3 Further assessment indication

		F	G	H			Further assessment rate		
		Individuals screened of invited in	Positive	Negative	Total	Unknown	Positive	Total	%
Initial screening	40-44				0	0			
	45-49				0	0			
	50-54				0	0			
	55-59				0	0			
	60-64				0	0			
	65-69				0	0			
	70-74				0	0			
	75-79				0	0			
	Unknown *				0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Subsequent screening	40-44				0	0			
	45-49				0	0			
	50-54				0	0			
	55-59				0	0			
	60-64				0	0			
	65-69				0	0			
	70-74				0	0			
	75-79				0	0			
	Unknown *				0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Unknown if initial or subs.	40-44				0	0			
	45-49				0	0			
	50-54				0	0			
	55-59				0	0			
	60-64				0	0			
	65-69				0	0			
	70-74				0	0			
	75-79				0	0			
	Unknown *				0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Total	40-44	0	0	0	0	0			
	45-49	0	0	0	0	0			
	50-54	0	0	0	0	0			
	55-59	0	0	0	0	0			
	60-64	0	0	0	0	0			
	65-69	0	0	0	0	0			
	70-74	0	0	0	0	0			
	75-79	0	0	0	0	0			
	Unknown *	0	0	0	0	0			
	Total	**0**	**0**	**0**	**0**	**0**			

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Individuals screened of invited in documented in Table 3	Individuals screened of invited in not documented in Table 3	Individuals screened of invited in documented in Table 2
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

Table 4 Further assessment participation

		I	J	K			F.A. participation rate		
		Positive	Further assessment performed	Further assessment not performed	Total	Unknown	F.A. performed	Total	%
Initial screening	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Subsequent screening	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Unknown if initial or subs.	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Total	40-44	0	0	0	0	0			
	45-49	0	0	0	0	0			
	50-54	0	0	0	0	0			
	55-59	0	0	0	0	0			
	60-64	0	0	0	0	0			
	65-69	0	0	0	0	0			
	70-74	0	0	0	0	0			
	75-79	0	0	0	0	0			
	Unknown *	0	0	0	0	0			
	Total	**0**	**0**	**0**	**0**	**0**			

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Positive documented in Table 4	Positive not documented in Table 4	Positive documented in Table 3
0	0		0
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0

Table 5 Further assessment outcome

		L	M	N	O			Treatment referral rate (x1000)		
		Individuals screened of invited in	Further assessment performed	Treatment/Surgery referral or inoperable ca	Negative	Total	Unknown	Treatment referral or inoperable ca	Individuals screened of invited in	Rate
Inital screening	40-44	0	0			0	0			
	45-49	0	0			0	0			
	50-54	0	0			0	0			
	55-59	0	0			0	0			
	60-64	0	0			0	0			
	65-69	0	0			0	0			
	70-74	0	0			0	0			
	75-79	0	0			0	0			
	Unknown *	0	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**	**0**			
Subsequent screening	40-44	0	0			0	0			
	45-49	0	0			0	0			
	50-54	0	0			0	0			
	55-59	0	0			0	0			
	60-64	0	0			0	0			
	65-69	0	0			0	0			
	70-74	0	0			0	0			
	75-79	0	0			0	0			
	Unknown *	0	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**	**0**			
Unknown if initial or subs.	40-44	0	0			0	0			
	45-49	0	0			0	0			
	50-54	0	0			0	0			
	55-59	0	0			0	0			
	60-64	0	0			0	0			
	65-69	0	0			0	0			
	70-74	0	0			0	0			
	75-79	0	0			0	0			
	Unknown *	0	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**	**0**			
Total	40-44	0	0	0	0	0	0			
	45-49	0	0	0	0	0	0			
	50-54	0	0	0	0	0	0			
	55-59	0	0	0	0	0	0			
	60-64	0	0	0	0	0	0			
	65-69	0	0	0	0	0	0			
	70-74	0	0	0	0	0	0			
	75-79	0	0	0	0	0	0			
	Unknown *	0	0	0	0	0	0			
	Total	**0**	**0**	**0**	**0**	**0**	**0**			

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Individuals screened of invited in documented in Table 5	Individuals screened of invited in not documented in Table 5	Individuals screened of invited in documented in Table 2
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

	Individuals screened of invited in documented in Table 5	Individuals screened of invited in not documented in Table 5	Individuals screened of invited in documented in Table 3
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

	Further assessment performed documented in Table 5	Further assessment performed not documented in Table 5	Further assessment performed documented in Table 4
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

Table 6 Outcome

		P	Q	R	S	T	U			Detection Rate			PPV			
		Individuals screened of invited in	Further assessment performed	Benign lesions or no lesion	CIS detected	Invasive breast cancers detected	Other histology	Total	Unknown	Total (x1000)	CIS (x1000)	Invasive (x1000)	Total (of recall)	% CIS	Benign treatment rate	B / M ratio
Initial screening	40-44	0	0					0	0							
	45-49	0	0					0	0							
	50-54	0	0					0	0							
	55-59	0	0					0	0							
	60-64	0	0					0	0							
	65-69	0	0					0	0							
	70-74	0	0					0	0							
	75-79	0	0					0	0							
	Unknown *	0	0					0	0							
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**							
Subsequent screening	40-44	0	0					0	0							
	45-49	0	0					0	0							
	50-54	0	0					0	0							
	55-59	0	0					0	0							
	60-64	0	0					0	0							
	65-69	0	0					0	0							
	70-74	0	0					0	0							
	75-79	0	0					0	0							
	Unknown *	0	0					0	0							
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**							
Unknown if initial or subs.	40-44	0	0					0	0							
	45-49	0	0					0	0							
	50-54	0	0					0	0							
	55-59	0	0					0	0							
	60-64	0	0					0	0							
	65-69	0	0					0	0							
	70-74	0	0					0	0							
	75-79	0	0					0	0							
	Unknown *	0	0					0	0							
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**							
Total	40-44	0	0	0	0	0	0	0	0							
	45-49	0	0	0	0	0	0	0	0							
	50-54	0	0	0	0	0	0	0	0							
	55-59	0	0	0	0	0	0	0	0							
	60-64	0	0	0	0	0	0	0	0							
	65-69	0	0	0	0	0	0	0	0							
	70-74	0	0	0	0	0	0	0	0							
	75-79	0	0	0	0	0	0	0	0							
	Unknown *	0	0	0	0	0	0	0	0							
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**							

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Individuals screened of invited in documented in Table 6	Individuals screened of invited in not documented in Table 6	Individuals screened of invited in documented in Table 2
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

	Individuals screened of invited in documented in Table 6	Individuals screened of invited in not documented in Table 6	Individuals screened of invited in documented in Table 3
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

	Individuals screened of invited in documented in Table 6	Individuals screened of invited in not documented in Table 6	Individuals screened of invited in documented in Table 5
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

	Further assessment performed documented in Table 6	Further assessment performed not documented in Table 6	Further assessment performed documented in Table 4
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

	Further assessment performed documented in Table 6	Further assessment performed not documented in Table 6	Further assessment performed documented in Table 5
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

Comments and assumptions

Please write here, referring to the relevant Table, any note or specific assumption you need to communicate or any comments. Thank you!

Instructions to data providers on how to fill up breast data tables

File **SR_Tables_BREAST.xls**

After reading this document, if you still require assistance in filling any of the data tables, please contact us by email at [redacted]

If screening is not implemented uniformly across the country or region on which you are reporting (ie there is regional variation in the rollout of screening or there is regional variation in the eligible age range) please report all of the screening activity in the tables and explain the variation in an accompanying email when you send in the completed tables.

The requested aggregate data is broken down by the variables::

- Country (or Region)
- Index year

Age group stratification

In addition, data in all tables should be stratified per Age group. Please check the availability of your data and follow the corresponding instructions (according to these three scenarios):

1) If data **can be stratified** by age groups, please fill in the first 8 rows.

40-44	**10000**
45-49	**10000**
50-54	**10000**
55-59	**10000**
60-64	**10000**
65-69	**10000**
70-74	**10000**
75-79	**10000**
Unknown	
Total	**[Automatic sum of above figures]**

2) If data **cannot be stratified** by age groups, put the total amount irrespective of age in the last row.

40-44	
45-49	
50-54	
55-59	
60-64	
65-69	
70-74	
75-79	
Unknown	**80000**
Total	**[Automatic sum of above figures]**

3) In a **mixed situation**, with data from some areas which can be stratified and other data that cannot be stratified, please fill separately the first rows for the formerand the last row for the latter.

40-44	**9000**	
45-49	**9000**	
50-54	**9000**	
55-59	**9000**	◄ **Numbers referring to areas that can be stratified**
60-64	**9000**	
65-69	**9000**	
70-74	**9000**	
75-79	**9000**	
Unknown	**8000**	◄ **N. referring to areas not stratifiable**
Total	**[Automatic sum of above figures]**	

Always check the total figures at the bottom of each table to be sure that the sum of the strata is the total number expected.

Instructions for Table 1 Population

Country (or Region): _____
Country or area to which all tables refer.

Index year: _____
Please fill in all tables using the data from the calendar year 2013. If data from that year are not yet available, use the most recent available year and indicate the year in Table 1. Note that in Table 2 of each Excel file some data will be required up to June of the following year.

	Target population	**Screening interval in years**
× ages	**A**	**B**

A	Target population	Total number of age-eligible women obtained from official statistics (irrespective of the screening interval).
B	Screening interval in years	Interval (in years) between routine screens decided upon in each screening programme dependent on screening policy.

Instructions for Table 2 Screening invitations and screening tests

	Individuals personally invited in index year	Individuals screened of invited in index year	Individuals screened in index year
× ages	**C**	**D**	**E**

Columns C and D are requested only for “Population based” screening.
The classification “Population based screening” applies to programmes where individual invitations are sent to eligible women.
The classification “Non population based screening” applies to areas where individual invitations are not sent to the women in the eligible population.

C	Individuals personally invited in index year	Requested only for “population based screening”, it includes all personally invited women (not counting reminders or returned letters) in the period to which data refer. Please indicate the number of women invited from January 1st to December 31st of the index year. Do not include invitations to intermediate mammograms (short terms recalls) in this column.
D	Individuals screened of invited in index year	Requested only for “population based screening”, it is a subset of the women-invited-in-index-year who received a test – counting any test performed up to June of the following year (Invitation cohort). It is also acceptable, assuming steady state, to estimate this number using the number of attenders in the index year - regardless of their invitation date. Do not include tests referring to intermediate mammograms (short terms recalls) in this column.
E	Individuals screened in index year	Women who received a test in index year – regardless of when invited. Do not include tests referring to intermediate mammograms (short terms recalls) in this column.

Initial/subsequent tests

Data in tables 3, 4, 5, 6 should be stratified per Initial/subsequent tests:

- **Initial screening** is the first screening examination of individual women within the screening programme, regardless of the organisational screening round in which the examination takes place. Include also screening tests performed in a population based screening programme before receiving the first invitation (these examinations are often referred to as “spontaneous tests”).
- **Subsequent screening** includes all screening examinations of individual women within the screening programme following an initial screening examination, regardless of the organisational screening round in which the examination takes place.
- **Unknown if initial or subsequent** strata should be used for tests for which the above distinction is not available.

The numbers collected in the three subtables should refer to strictly distinct sets of women. Always check the total figures at the bottom of the three tables to be sure that the sum of the strata is the total number expected.

Instructions for Table 3 Further assessment indication

		Individuals screened	Positive	Negative	Total	Unknown
× ages	**× initial/subs.**	**F**	**G**	**H**	**G + H**	**F – (G + H)**

Further assessment is additional diagnostic techniques (either at screening or at recall) that are performed for medical reasons in order to clarify the nature of a perceived abnormality detected at the screening examination. Further assessment may have taken place on the same day as the screening examination or on recall. It may include breast clinical examination, additional imaging and invasive investigations (cytology, core biopsy).

F	Individuals screened in index year	This column refers to the denominator of the "Recall rate" indicator, so if the numerator (number of further assessment recommended) has not been provided by all areas, then report the number of women screened in the areas where data on number of further assessment recommendation are available. Consider for example in a country where: - 20 regions provide relevant information for calculating compliance - 15 of these regions have data on recall In this case: - the no. individuals screened documented in table 2 will refer to the 20 regions - the no. individuals screened documented in table 3 will refer to the 15 regions.
G	Positive	Women who have been recommended further assessment (it is a subset of F).
H	Negative	Women who have not been recommended further assessment (it is a subset of F).

Control sums

If the database for Table 3 is smaller than Table 2, eg because data is not available from all regions covered by Table 2, the difference should be reflected in the middle column of the control sums table.

Instructions for Table 4 Further assessment participation

		Positive	Further assessment performed	Further assessment not performed	Total	Unknown
× ages	**× initial/subs.**	**I**	**J**	**K**	**J + K**	**I – (J + K)**

I	Positive	This column refers to the denominator of the "Further assessment participation rate" indicator, so if the numerator (number of further assessment performed) has not been provided by all areas, then report the number of positive women in the areas where data on number of further assessment performance are available.
J	Further assessment performed	Women who actually underwent further imaging and/or invasive further assessment, irrespective of whether further assessment was complete or not. Each woman is counted only once (it is a subset of I).
K	Further assessment not performed	Women who didn't undergo further assessment (it is a subset of I).

Control sums

If the database for Table 4 is smaller than Table 3, eg because data is not available from all regions covered by Table 3, the difference should be reflected in the middle column of the control sums table.

Instructions for Table 5 Further assessment outcome

		Individuals screened	F.A. performed	Treatment/Surgery referral or inoperable ca	Negative or short-term recall	Total	Unknown
× ages	**× initial/subs.**	**L**	**M**	**N**	**O**	**N + O**	**M – (N + O)**

L	Individuals screened	This column refers to the denominator of the "Surgical referral rate" indicator, so if the numerator (number of further assessment recommended) has not been provided by all areas, then report the number of women screened in the areas where data on surgical referral are available.
M	Further assessment performed	In the programmes or areas where data is available on treatment referral, these are the women who actually underwent imaging and/or invasive further assessment, irrespective of whether further assessment was complete or not. Each woman is counted only once.
N	Treatment/Surgery referral or inoperable ca	Women referred to open surgical biopsy or surgical intervention or neo-adjuvant therapy as a result of assessment, including also those with cancers that are not fit for surgery or other treatment (it is a subset of M).
O	Negative	This includes all other possible known results of assessment (it is a subset of M). Please include also "Short Term recall", being a mammogram performed out of sequence with the screening interval (say at 6 or 12 months for programmes with two-years screening interval), as a result of the screening test (not recommended by the European Guidelines) or as a result of further assessment.

Control sums

If the database for Table 5 is smaller than for Tables, 2, 3 or 4, eg because data is not available from all regions covered by Table 4, the difference should be reflected in the middle column of the control sums table.

Instructions for Table 6 Outcome

		Individuals screened	Individuals with F.A. performed	Benign lesions or no lesion	CIS detected	Invasive breast cancers detected	Other histology
× ages	**× initial/subs.**	**P**	**Q**	**R**	**S**	**T**	**U**

For all people counted in column P one outcome (the most severe) should be entered in one of the columns R to U (decreasing order of severity: invasive breast cancer, CIS, other histology, benign lesions).

P	Individuals screened	This column refers to the denominator of the "Detection Rate" indicator, so if the numerator (number of cases detected) has not been provided by all areas, then report the number of women screened in the areas where data on detection are available.
Q	Further assessment performed	This column refers to the denominator of the "Positive Predictive Value" indicator, so if the numerator (number of cases detected) has not been provided by all areas, then report the number of women who actually underwent further assessment in the areas where data on detection are available.
R	Benign lesions or no lesion	Women with benign lesion detected or without any lesion.
S	CIS detected	Women with in situ carcinoma detected (ductal or lobular).
T	Invasive breast cancers detected	Women with invasive breast cancers detected (including microinvasive cancers or cancers for which is unknown if they are invasive or in situ).
U	Other histology	Women with lesions detected with other histology (for example non epithelial cancers).

Control sums

If the database for Table 6 is smaller than Tables 2-5 (individuals screened) eg because respective data is not available from all regions covered by Table 6, the difference should be reflected in the middle columns of the control sums tables.

Indicators

Data collected in the tables allows the calculation of the following indicators:

Indicator	Numerator	Denominator
Invitation coverage (of target population)	**C**	**A/B**
Examination coverage (of target population)	**E**	**A/B**
Participation rate	**D**	**C**
Further assessment rate	**G**	**G+H**
Further assessment participation rate	**J**	**J+K**
Treatment referral rate	**N**	**L**
DR total	**S+T**	**P**
PPV total of recall (performed)	**S+T**	**Q**
DR (CIS)	**S**	**P**
DR (Invasive)	**T**	**P**
% CIS	**S**	**S+T**
Benign surgical biopsies rate	**R**	**P**
B/M ratio	**R**	**S+T**

9.4.3. Cervical cancer screening questionnaire

Country/period of data collection

0.1	Date of data entry	DATE
0.2	Country name	TEXT
0.3	Name of region or geographical area (if reporting only part of the country)	TEXT
0.4	Notes	TEXT

Identification of responder

1.1	Name	TEXT
1.2	Organisation	TEXT
1.3	E-mail Address	TEXT
1.4	Additional e-mail address	TEXT
1.5	Phone number	TEXT
1.6	Additional phone number	TEXT
1.7	Fax number	TEXT
1.8	Occupational or professional activity (e.g. management, type of health profession, statistics, epidemiology, etc.)	TEXT
1.9	Position of responder in organisation	TEXT
1.10	Notes	TEXT

Programme and policy

2.1	Programme status	• Planning phase • Pilot phase • Rollout ongoing • Rollout complete (90% of the eligible population in the country or region served by a respective programme have been invited at least once and all elements of the screening process are fully functional)
2.2	Year screening started	NUMBER
2.3	Type of screening programme (if both population-based and opportunistic, please fill in two separate questionnaires, one for each)	• Population-based, organised screening • Opportunistic screening • No programme at all
2.4	Please describe the levels at which your programme is managed (national and/or regional/local level) and the activities managed at each level.	TEXT

2.5	Does the country/region have a public screening policy?	YES / NO
2.6	How is it documented?	• In a law • In an official recommendation, decision or directive
2.7	Specify the source, including a reference to a web link (URL) if available	TEXT
2.8	At what level is the screening programme administered?	• National • Regional • Local • Other
2.9	Is there a team responsible for implementing the screening policy?	YES / NO
2.10	Is the team responsible for coordinating delivery of the service?	YES / NO
2.11	Is the team responsible for maintaining requisite quality?	YES / NO
2.12	Is the team responsible for reporting performance and results?	YES / NO
2.13	How is the programme funded?	• Public • Private • Both public and private (i.e. mixed)
2.14	Please specify	TEXT
2.15	Are government funds a source of financing?	YES / NO
2.16	Is there only one national channel for the whole activity or several channels (e.g. one channel for non-population-based e.g. reimbursements, and one or many for the programme)?	• Only one channel • Several channels
2.17	Is health insurance a source of funding?	YES / NO
2.18	Is charity a source of funding?	YES / NO
2.19	Are there other sources of funding?	YES / NO
2.20	Please specify the other sources of funding	TEXT
2.21	Notes	TEXT
Data collection and analysis		
3.1	Are there screening registers at the REGIONAL or LOCAL level (for collection, management and analysis of screening data)?	YES / NO
3.2	Number of regional/local screening registers	NUMBER
3.3	Are there screening registers at the NATIONAL level (for collection, management and analysis of screening data)?	YES / NO

3.4	Are data at the national collecting center collected as aggregated data?	YES / NO
3.5	Are data at the national collecting center collected as individual data?	YES / NO
3.6	Are data regarding opportunistic and invitational tests stored in the same manner?	YES / NO
3.7	Are screening data linked with cancer registries?	YES / NO
3.8	On a regular basis?	YES / NO
3.9	How often?	TEXT
3.10	For which purposes?	TEXT
3.11	Are reports published?	YES / NO
3.12	Please briefly describe and send a copy or the URL	TEXT
3.13	Are systematic audits of cervical cancer cases conducted?	YES / NO
3.14	What is the protocol for audits in your country? (Please describe and provide a copy of the audit protocol if possible)	TEXT
3.15	What source is used to identify cases? (e.g. cancer registry)	TEXT
3.16	Are all cases of cervical cancer included regardless of age, stage at diagnosis, place of diagnosis?	YES / NO
3.17	If no, please report selection criteria	TEXT
3.18	Do audits in your country include a comparison group (i.e. controls)?	YES / NO
3.19	If yes, how is it selected?	TEXT
3.20	Which characteristics of cases are collected?	TEXT
3.21	What data source(s) is/are used for collecting these characteristics?	TEXT
3.22	Are standardised definitions and coding used?	YES / NO
3.23	How often are audits of cervical cancer cases completed?	TEXT
3.24	Who is responsible for conducting the audit?	TEXT
3.25	Have the results of the audit been made public?	YES / NO
3.26	If yes, please describe how the results have been made public (i.e. were they presented on a government or healthcare webpage, and/or	TEXT

	are they published in scientific papers?)	
3.27	Have the results of the audits been used programmatically?	YES / NO
3.28	If yes, give examples	TEXT
3.29	Is there a separate audit database?	YES / NO
3.30	Are there audit data collection forms?	YES / NO
3.31	Are there audit data coding guides? (If yes to one of the previous two questions, please provide copies when returning the completed survey)	YES / NO
3.32	Is there a centralized vaccine registry for the vaccination program?	YES / NO
3.33	Is it possible to link HPV vaccination data with health registries (i.e. the cervical cancer screening registry)?	YES / NO
3.34	If yes, please describe under which circumstances linkages can be made	TEXT
3.35	Notes	TEXT

Quality control & reporting

4.1	Is there any system of quality control of data collection?	YES / NO
4.2	Does the system produce routine feedbacks on data inconsistencies?	YES / NO
4.3	Are screening monitoring results produced?	YES / NO
4.4	On a regular basis?	YES / NO
4.5	How often?	TEXT
4.6	For which purposes?	TEXT
4.7	Are reports published?	YES / NO
4.8	Please briefly describe and send a copy or the URL	TEXT
4.9	As a result of collecting and analyzing screening programme data, have changes been made to the screening program, and when were they made?	TEXT
4.10	Notes	TEXT

Invitation, type of test and screening interval

5.1	Does your programme issue individual invitations?	YES / NO
5.2	How are people invited?	TEXT

5.3	What institution or organization is responsible for sending invitations and what database(s) is/are used as the source(s) of data for invitations?	TEXT
5.4	How do you avoid excessive sample-taking?	TEXT
5.5	Are opportunistic and invitational sample-taking integrated into the screening programme monitoring and invitation system?	YES / NO
5.6	Does the programme invite all women in the eligible target population or exclude those who have recently been screened opportunistically?	TEXT
5.7	What does the invitation include?	• A pre-fixed, modifiable appointment • An invitation to get in touch to organise an appointment • Other
5.8	Specify	TEXT
5.9	Does your programme consider eligibility or exclusion criteria other than age, gender and geographical area?	YES / NO
5.10	Describe these eligibility criteria	TEXT
5.11	Who takes the samples?	• General practitioner • Primary care nurse • Midwife • Gynecologist • Mix of health care providers • Other
5.12	Do some areas/programmes offer stand-alone cytology only (i.e. at all eligible ages)?	YES / NO
5.13	Age group targeted (stand-alone cytology)	RANGE
5.14	Screening interval in years (stand-alone cytology)	• 1 year • 3 years • 5 years • > 5 years • Age-specific intervals
5.15	Describe the age-specific intervals	TEXT
5.16	Do some areas/programmes offer stand-alone cytology and stand-alone HPV at different ages?	YES / NO
5.17	Age group targeted (stand-alone cytology)	RANGE
5.18	Age group targeted (stand-alone HPV)	RANGE
5.19	Screening interval in years (stand-alone cytology)	• 1 year • 3 years • 5 years

		• > 5 years • Age-specific intervals
5.20	Describe the age-specific intervals	TEXT
5.21	Screening interval in years (stand-alone HPV)	• 1 year • 3 years • 5 years • > 5 years • Age-specific intervals
5.22	Describe the age-specific intervals	TEXT
5.23	Do some areas/programmes offer stand-alone cytology and co-testing HPV + cytology at different ages?	YES / NO
5.24	Age group targeted (stand-alone cytology)	RANGE
5.25	Age group targeted (co-testing HPV + cytology)	RANGE
5.26	Screening interval in years (stand-alone cytology)	• 1 year • 3 years • 5 years • > 5 years • Age-specific intervals
5.27	Describe the age-specific intervals	TEXT
5.28	Screening interval in years (co-testing HPV + cytology)	• 1 year • 3 years • 5 years • > 5 years • Age-specific intervals
5.29	Describe the age-specific intervals	TEXT
5.30	Do some areas/programmes offer stand-alone HPV only (i.e. at all eligible ages)?	YES / NO
5.31	Age group targeted (stand-alone HPV)	RANGE
5.32	Screening interval in years (stand-alone HPV)	• 1 year • 3 years • 5 years • > 5 years • Age-specific intervals
5.33	Describe the age-specific intervals	TEXT
5.34	Do some areas/programmes offer co-testing HPV + cytology at all ages?	YES / NO
5.35	Age group targeted (co-testing HPV + cytology at all ages)	RANGE
5.36	Screening interval in years (co-testing HPV + cytology at all ages)	• 1 year • 3 years • 5 years

		• > 5 years • Age-specific intervals
5.37	Describe the age-specific intervals	TEXT
5.38	Please describe in your words the tests used and the age groups involved	TEXT
5.39	Please describe any policy to discourage co-testing (cytology and HPV) vs. use of one or the other primary test alone	TEXT
5.40	Are methods other than conventional cytology with standard Papanicolaou staining used?	YES / NO
5.41	Please describe the other methods	TEXT
5.42	Do you use LBC?	YES / NO
5.43	Specify % of screening with LBC	TEXT
5.44	Do you use computer assisted cytology?	YES / NO
5.45	Specify % of screening with computer assisted cytology	TEXT
5.46	Notes	TEXT
Further assessment		
6.1	Do programmes actively invite/recall for further assessment if the screening test is postive?	YES / NO
6.2	How is a abnormal/positive primary test managed? (Please describe briefly and mention who is responsible for the referral process and for communicating with women. If available, please also send flowcharts for management of a positive primary test.)	TEXT
6.3	Notes	TEXT
Follow-up		
7.1	Does the screening programme invite to screening after a precancer or cancer diagnosis?	YES / NO
7.2	Is the ordinary screening protocol applied? (same as women with not such history)	YES / NO
7.3	Please describe the post-treatment follow-up protocol and note if if/when women are returned to routine screening	TEXT
7.4	Notes	TEXT
Monetary costs, cost effectiveness and equity		
8.1	Is there a separate budget for the offices/facilities of the screening programme	YES / NO

	issuing invitations and being responsible of organisation and evaluation of screening programs	
8.2	Who finances the offices of the screening program?	TEXT
8.3	What are the annual costs of the offices of the screening programme? (In Euros or currency of your country, please specify below)	NUMBER
8.3	Currency (if different from EUR)	TEXT
8.4	Is there a centralized registry for the population-based, organised screening programme?	YES / NO
8.5	Is there a separate budget for the screening registry	YES / NO
8.6	Who finances the screening registry?	TEXT
8.7	What are the annual costs of the screening registry? (In Euros or currency of your country, please specify below)	NUMBER
8.7	Currency (if different from EUR)	TEXT
8.8	Is in principle the screening test free of charge (no copayment) for the screenee?	YES / NO
8.9	Is in principle the assessment free of charge (neither full payment nor copayment) for the screenee?	YES / NO
8.10	Are any of the assessment costs reimbursed/covered by public sources?	YES / NO
8.11	Are there exceptions to what is indicated in the answers to the previous questions?	YES / NO
8.12	Describe	TEXT
8.13	Have you studied screening costs or cost-effectiveness in your country/region?	YES / NO
8.14	Specify the source of the publication	TEXT
8.15	What cost has been studied (type of cost and amount in euros)?	TEXT
8.16	Are you aware of any population group not covered by screening?	YES / NO
8.17	Describe	TEXT
8.18	Is participation rate periodically analysed according to socio-economic status, education or ethnicity?	YES / NO
8.19	Describe	TEXT

8.20	Have barriers to participation been studied and identified or has any kind if intervention to reduce inequalities been conducted?	YES / NO
8.21	Describe and provide references as PDF copies	TEXT
8.22	Notes	TEXT

Quality of life and ethical issues

9.1	Has quality of life been studied in relation to screening, assessment or referral?	YES / NO
9.2	Describe	TEXT
9.3	Do you require signing informed consent to participate in screening?	YES / NO
9.4	Describe	TEXT
9.5	Do you provide written information on benefits and harms of screening at the time of invitation or examination?	YES / NO
9.6	Describe	TEXT
9.7	Notes	TEXT

9.4.4. Cervical cancer screening tables

Table 1 Population

Country/Region	
Index year	

	A
	Target population
Up to 19	
20-24	
25-29	
30-34	
35-39	
40-44	
45-49	
50-54	
55-59	
60-64	
65-69	
70-74	
75-79	
Unknown *	
	0

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Instructions to data providers on how to fill up cervix data tables

File **SR_Tables_CERVIX_1.xls**

After reading this document, if you still require assistance in filling any of the data tables, please contact us by email at [redacted]

If cervical screening is not implemented uniformly across the country or region on which you are reporting (ie there is regional variation in the rollout of the type of programme you are reporting on, or there is regional variation in the eligible age range for that type of programme) please report all of the screening activity for that type of programme in the tables and explain the variation in an accompanying email when you send in the completed tables.

The requested aggregate data is broken down by the variables:

- Country (or Region)
- Index year

Age group stratification

In addition, data in all tables should be stratified per Age group. Please check the availability of your data and follow the corresponding instructions (according to these three scenarios):

1) If data **can be stratified** by age groups, please fill in the first 8 rows.

Up to 19	**10000**
20-24	**10000**
25-29	**10000**
30-34	**10000**
35-39	**10000**
40-44	**10000**
45-49	**10000**
50-54	**10000**
55-59	**10000**
60-64	**10000**
65-69	**10000**
70-74	**10000**
75-79	**10000**
Unknown	
Total	**[Automatic sum of above figures]**

2) If data **cannot be stratified** by age groups, put the total amount irrespective of age in the last row.

Up to 19	
20-24	
25-29	
30-34	
35-39	
40-44	
45-49	
50-54	
55-59	
60-64	
65-69	
70-74	
75-79	
Unknown	**130000**
Total	**[Automatic sum of above figures]**

3) In a **mixed situation**, with data from some areas which can be stratified and other data that cannot be stratified, please fill separately the first rows for the formers and the last row for the latter.

Up to 19	**9000**	
20-24	**9000**	
25-29	**9000**	
30-34	**9000**	
35-39	**9000**	
40-44	**9000**	
45-49	**9000**	◄ **Numbers referring to areas that can be stratified**
50-54	**9000**	
55-59	**9000**	
60-64	**9000**	
65-69	**9000**	
70-74	**9000**	
75-79	**9000**	
Unknown	**13000**	◄ **N. referring to areas not stratifiable**
Total	**[Automatic sum of above figures]**	

Always check the total figures at the bottom of each table to be sure that the sum of the strata is the total number expected.

Instructions for Table 1 Population

Country (or Region): _____
Country or area to which all tables refer.

Index year: _____
Please fill in all tables using the data from the calendar year 2013. If data from that year are not yet available, use the most recent available year and indicate the year in Table 1. Note that in Table 2 of each Excel file some data will be required up to June of the following year.

	Target population
× age group(s)	**A**

A	Target population	Total number of age-eligible women obtained from official statistics (irrespective of the screening interval).

Table 2 Screening tests

Country

Index year

Screening interval years

Protocol < Specify either "Stand-alone cytology", "Stand-alone HPV" or "Co-testing HPV+cytology"
If you use more than one protocol, please fill in a distinct Excel file for each protocol, specifying in this cell one of the three values above.

	B	C	D	E
	Individuals personally invited in	**Individuals screened of invited in**	**Individuals screened in**	**Individuals invited in the round**
Up to 19				
20-24				
25-29				
30-34				
35-39				
40-44				
45-49				
50-54				
55-59				
60-64				
65-69				
70-74				
75-79				
Unknown *				
Total	**0**	**0**	**0**	**0**

Participation rate

	Individuals screened of invited in	**Individuals personally invited in**	**%**
Up to 19			
20-24			
25-29			
30-34			
35-39			
40-44			
45-49			
50-54			
55-59			
60-64			
65-69			
70-74			
75-79			
Unknown *			
Total	**0**	**0**	

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Table 3 Colposcopy referral

		F	G	H	I			Referral to colposcopy rate		
		Individuals screened of invited in	Referred to colposcopy	Not referred to colposcopy nor to triage	Not referred to colposcopy but referred to triage	Total	Unknown	Referred to colposcopy	Total	%
Initial screening	Up to 19					0	0			
	20-24					0	0			
	25-29					0	0			
	30-34					0	0			
	35-39					0	0			
	40-44					0	0			
	45-49					0	0			
	50-54					0	0			
	55-59					0	0			
	60-64					0	0			
	65-69					0	0			
	70-74					0	0			
	75-79					0	0			
	Unknown *					0	0			
	Total	**0**	**0**	**0**	**0**	**0**	**0**			
Subsequent screening	Up to 19					0	0			
	20-24					0	0			
	25-29					0	0			
	30-34					0	0			
	35-39					0	0			
	40-44					0	0			
	45-49					0	0			
	50-54					0	0			
	55-59					0	0			
	60-64					0	0			
	65-69					0	0			
	70-74					0	0			
	75-79					0	0			
	Unknown *					0	0			
	Total	**0**	**0**	**0**	**0**	**0**	**0**			
Don't know if initial or subsequent	Up to 19					0	0			
	20-24					0	0			
	25-29					0	0			
	30-34					0	0			
	35-39					0	0			
	40-44					0	0			
	45-49					0	0			
	50-54					0	0			
	55-59					0	0			
	60-64					0	0			
	65-69					0	0			
	70-74					0	0			
	75-79					0	0			
	Unknown *					0	0			
	Total	**0**	**0**	**0**	**0**	**0**	**0**			
Total	Up to 19	0	0	0	0	0	0			
	20-24	0	0	0	0	0	0			
	25-29	0	0	0	0	0	0			
	30-34	0	0	0	0	0	0			
	35-39	0	0	0	0	0	0			
	40-44	0	0	0	0	0	0			
	45-49	0	0	0	0	0	0			
	50-54	0	0	0	0	0	0			
	55-59	0	0	0	0	0	0			
	60-64	0	0	0	0	0	0			
	65-69	0	0	0	0	0	0			
	70-74	0	0	0	0	0	0			
	75-79	0	0	0	0	0	0			
	Unknown *	0	0	0	0	0	0			
	Total	**0**	**0**	**0**	**0**	**0**	**0**			

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Individuals screened of invited in documented in Table 3	Individuals screened of invited in not documented in Table 3	Individuals screened of invited in documented in Table 2
Up to 19	0		0
20-24	0		0
25-29	0		0
30-34	0		0
35-39	0		0
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

Table 4 Colposcopy participation

		J	K	L			Colposcopy participation rate		
		Referred to colposcopy	Colposcopy performed (at least one)	Colposcopy not performed	Total	Unknown	Colposcopy performed	Total	%
Initial screening	Up to 19	0			0	0			
	20-24	0			0	0			
	25-29	0			0	0			
	30-34	0			0	0			
	35-39	0			0	0			
	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Subsequent screening	Up to 19	0			0	0			
	20-24	0			0	0			
	25-29	0			0	0			
	30-34	0			0	0			
	35-39	0			0	0			
	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Don't know if initial or subsequent	Up to 19	0			0	0			
	20-24	0			0	0			
	25-29	0			0	0			
	30-34	0			0	0			
	35-39	0			0	0			
	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Total	Up to 19	0	0	0	0	0			
	20-24	0	0	0	0	0			
	25-29	0	0	0	0	0			
	30-34	0	0	0	0	0			
	35-39	0	0	0	0	0			
	40-44	0	0	0	0	0			
	45-49	0	0	0	0	0			
	50-54	0	0	0	0	0			
	55-59	0	0	0	0	0			
	60-64	0	0	0	0	0			
	65-69	0	0	0	0	0			
	70-74	0	0	0	0	0			
	75-79	0	0	0	0	0			
	Unknown *	0	0	0	0	0			
	Total	**0**	**0**	**0**	**0**	**0**			

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Referred to colposcopy documented in Table 4	Referred to colposcopy not documented in Table 4	Referred to colposcopy documented in Table 3
Up to 19	0		0
20-24	0		0
25-29	0		0
30-34	0		0
35-39	0		0
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

Table 5 Histology outcome

		M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA									
		Individuals screened of invited in	Colposcopy performed	No biopsy performed	Unsatisfactory histology	No CIN/ca detected	Fully invasive squamous carcinoma	Micro-invasive squamous carcinoma	Unstaged invasive squamous	Invasive adeno/Ca	Other invasive carcinoma	Adeno/Ca in situ (C/GIN)	CIN3	CIN2	CIN1	Other histology	Total	Unknown	CIN2+	CIN3+	Tests	DR CIN2+	DR CIN3+	Colposcopies	PPV CIN2+	PPV CIN3+
Initial screening	Up to 19	0	0														0	0	0	0	0			0		
	20-24	0	0														0	0	0	0	0			0		
	25-29	0	0														0	0	0	0	0			0		
	30-34	0	0														0	0	0	0	0			0		
	35-39	0	0														0	0	0	0	0			0		
	40-44	0	0														0	0	0	0	0			0		
	45-49	0	0														0	0	0	0	0			0		
	50-54	0	0														0	0	0	0	0			0		
	55-59	0	0														0	0	0	0	0			0		
	60-64	0	0														0	0	0	0	0			0		
	65-69	0	0														0	0	0	0	0			0		
	70-74	0	0														0	0	0	0	0			0		
	75-79	0	0														0	0	0	0	0			0		
	Unknown	0	0														0	0	0	0	0			0		
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
Subsequent screening	Up to 19	0	0														0	0	0	0	0			0		
	20-24	0	0														0	0	0	0	0			0		
	25-29	0	0														0	0	0	0	0			0		
	30-34	0	0														0	0	0	0	0			0		
	35-39	0	0														0	0	0	0	0			0		
	40-44	0	0														0	0	0	0	0			0		
	45-49	0	0														0	0	0	0	0			0		
	50-54	0	0														0	0	0	0	0			0		
	55-59	0	0														0	0	0	0	0			0		
	60-64	0	0														0	0	0	0	0			0		
	65-69	0	0														0	0	0	0	0			0		
	70-74	0	0														0	0	0	0	0			0		
	75-79	0	0														0	0	0	0	0			0		
	Unknown	0	0														0	0	0	0	0			0		
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
Don't know if initial or subsequent	Up to 19	0	0														0	0	0	0	0			0		
	20-24	0	0														0	0	0	0	0			0		
	25-29	0	0														0	0	0	0	0			0		
	30-34	0	0														0	0	0	0	0			0		
	35-39	0	0														0	0	0	0	0			0		
	40-44	0	0														0	0	0	0	0			0		
	45-49	0	0														0	0	0	0	0			0		
	50-54	0	0														0	0	0	0	0			0		
	55-59	0	0														0	0	0	0	0			0		
	60-64	0	0														0	0	0	0	0			0		
	65-69	0	0														0	0	0	0	0			0		
	70-74	0	0														0	0	0	0	0			0		
	75-79	0	0														0	0	0	0	0			0		
	Unknown	0	0														0	0	0	0	0			0		
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
Total	Up to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	20-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	25-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	30-34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	35-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	40-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	45-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	50-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	55-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	60-64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	65-69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	70-74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	75-79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Individuals screened of invited in documented in Table 5	Individuals screened of invited in not documented	Individuals screened of invited in documented in Table 2
Total	0		0
Up to 19	0		0
20-24	0		0
25-29	0		0
30-34	0		0
35-39	0		0
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0

	Individuals screened of invited in documented in Table 5	Individuals screened of invited in not documented in Table 5	Individuals screened of invited in documented in Table 3
Up to 19	0		0
20-24	0		0
25-29	0		0
30-34	0		0
35-39	0		0
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

	Colposcopy performed documented in Table 5	Colposcopy performed not documented in Table 5	Colposcopy performed documented in Table 4
Up to 19	0		0
20-24	0		0
25-29	0		0
30-34	0		0
35-39	0		0
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown *	0		0
Total	0		0

Comments and assumptions

Please write here, referring to the relevant Table, any note or specific assumption you need to communicate or any comments. Thank you!

Instructions to data providers on how to fill up cervix data tables

File **SR_Tables_CERVIX_2.xls**

Documentation :
Version September 28th, 2015

After reading this document, if you still require assistance in filling any of the data tables, please contact us by email at [redacted]

If screening is not implemented uniformly across the country or region on which you are reporting (ie there is regional variation in the rollout of screening or there is regional variation in the eligible age range or interval) please report all of the screening activity in the tables and explain the variation in an accompanying email when you send in the completed tables.

The requested aggregate data is broken down by the variables:

- Country (or Region)
- Index year
- Screening Protocol

Protocol stratification

Stand-alone cytology: All women are tested just for cytology. HPV may be performed, but only to triage cytology-positive women.
Stand-alone HPV: All women are tested just for HPV. Cytology may be performed but only to triage HPV-positive women.
Co-testing HPV+cytology: Primary testing of all women is performed with both HPV and cytology.

- If you use only one protocol, please fill in Tables 2 to 5 only **once** and send them in **one** "CERVIX-2." file. Be sure to indicate in Table 2 which protocol all of the tables refer to using. **one** of the three values above.
- If you use **more than one** protocol, please fill in **more than one** "CERVIX-2" Excel file and specify in Table 2 of **each file**, which protocol all of the tables in the file refer to using **one** of the three values above.

Age group stratification

In addition, data in all tables should be stratified per Age groups. Please check the availability of your data and follow the corresponding instructions (according to these three scenarios):

1) If data **can be stratified** by age groups, please fill in the applicable cells first 13 rows.

Up to 19	**10000**
20-24	**10000**
25-29	**10000**
30-34	**10000**
35-39	**10000**
40-44	**10000**
45-49	**10000**
50-54	**10000**
55-59	**10000**
60-64	**10000**
65-69	**10000**
70-74	**10000**
75-79	**10000**
Unknown	
Total	**[Automatic sum of above figures]**

2) If data **cannot be stratified** by age groups, put the total amount irrespective of age in the last row.

Up to 19	
20-24	

25-29	
30-34	
35-39	
40-44	
45-49	
50-54	
55-59	
60-64	
65-69	
70-74	
75-79	
Unknown	**130000**
Total	**[Automatic sum of above figures]**

3) In a **mixed situation**, with data from some areas which can be stratified and other data that cannot be stratified, please fill separately the last row (“unknown”) for the latter, and the other rows for the former.

Up to 19	**9000**	
20-24	**9000**	
25-29	**9000**	
30-34	**9000**	
35-39	**9000**	
40-44	**9000**	
45-49	**9000**	◄ **Numbers referring to areas that can be stratified**
50-54	**9000**	
55-59	**9000**	
60-64	**9000**	
65-69	**9000**	
70-74	**9000**	
75-79	**9000**	
Unknown	**13000**	◄ **N. referring to areas not stratifiable**
Total	**[Automatic sum of above figures]**	

Always check the total figures at the bottom of each table to be sure that the sum of the strata is the total number expected.

Instructions for Table 2 Screening tests

Country (or Region): _____
Country or area to which all tables refer.

Index year: _____
Please fill in all tables using the data from women invited or screened (whichever applies) in the most recent calendar year (2013 at latest) for which complete data are available (see here below) and indicate the year in Table 1.

Note that Tables 2 - 5 of each Excel file ask, among other things, for data on triage testing (which include test repetitions) and on all colposcopies and histologies derived from the considered screening episode.

If the local protocol entails that most referrals to colposcopy are generated within 6 months of primary testing, then use as index year 2013 or the most recent year for which you have data available. You should include data on triage testing, colposcopies and histologies performed up to June, 30 of the subsequent year.

If the protocol is "stand alone HPV" or "HPV+cytology co-testing" and it entails that a substantial number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing then use 2012 as index year. You should include data on triage testing, colposcopies and histologies performed up to June, 30, 2014.

If the protocol is "stand alone cytology" and it entails that a substantial number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing and screening is not in a steady state (the number of women screened is strongly increasing or decreasing in time) then use 2012 as index year. You should include data on triage testing, colposcopies and histologies performed up to June, 30, 2014.

If the protocol is "stand alone cytology" and it entails that a substantial number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing and screening is in a steady state (the number of women screened is not strongly increasing or decreasing in time) then use as index year 2013 or the most recent year for which you have data available. See instructions in tables 3-5 to determine which women should be included in each column

Screening interval: _____ (years)
Time interval between routine screens; the interval is set by the policy of each screening programme.

Protocol: _____
Protocol to which all tables refer, choosing one of the following values:

- Stand-alone cytology
- Stand-alone HPV
- Co-testing HPV+cytology

	Individuals personally invited in index year	**Individuals screened of invited in index year**	**Individuals screened in index year**	**Individuals invited in the round**
× ages	**B**	**C**	**D**	**E**

Columns B and C are requested only for "Population based" screening.
Cohorts identified by column D (if filled) or column C (if D is not filled) will be followed up in subsequent Tables.
The classification "Population based screening" applies to programmes where individual invitations are sent to eligible women (note that some population-based programmes only send individual invitations to non-attenders).
The classification "Non population based screening" applies to areas where individual invitations are not sent to the women in the eligible population.

B	Individuals personally invited in index year	Requested only for "population based" screening, it includes all eligible women personally invited from January 1st to December 31st during the index year (do not count women more than once if they receive a reminder). Note that some population-based programmes only send

		invitations to non-attenders. In such cases include the attenders during the index year who were not sent a personal invitation in the group of 'personally invited'
C	Individuals screened of invited	Requested only for "population based" screening, it is the number of the women invited in the index year who received their primary screening test up to June 30th of the following year (Invitation cohort). It is also acceptable, assuming steady state, to estimate this number using the number of attendees in the index year - regardless of when invited.
D	Individuals screened in index year	Women who received a **primary** screening test in the index year - regardless of when invited.
E	Individuals invited in round	Women invited at least once in the index year plus the previous 2 years (if screening interval = 36 months) or analogously in case of a different screening interval.

Initial/subsequent tests

Data in tables 3 to 5 should be stratified per Initial/Subsequent screening:

- **Initial screening** is the first screening examination of individual women within the screening programme, regardless of the organisational screening round in which the examination takes place. Include also screening tests performed in a population-based screening programme before the originally planned initial invitation was sent or received .
- **Subsequent screening** includes all screening examinations of individual women within the screening programme following an initial screening examination, regardless of the organisational screening round in which the examination takes place.
- **Unknown if initial or subsequent** strata should be used for tests for which the above distinction is not available.

The data collected in each of the three sub-tables should refer to different groups of women. Always check the total figures at the bottom of the strata to be sure that the sum of the strata is the total number expected.

Instructions for Table 3 Colposcopy referral

		Individuals screened	Referred to colposcopy	Not referred to colposcopy nor to triage	Not referred to colposcopy but referred to triage	Total	Unknown
× ages	**× initial/subseq.**	**F**	**G**	**H**	**I**	**G + H + I**	**F – (G + H + I)**

F	Individuals screened in index year	This column refers to women included in column D (or to column C if D is not filled), being the denominator of the "colposcopy referral rate" indicator (see below). If the numerator (number of referrals to colposcopy) has not been provided by all areas, then report the subset of women who were screened in the areas where data on the number of colposcopy referrals are available. Take into account data on women screened for the time period . Consider for example in a country where: - 20 regions provide information for Table 2. - 15 of these regions also have data on colposcopy referral. In this case: - the no. individuals screened documented in Table 2 will refer to the 20 regions - the no. individuals screened documented in Table 3 will refer to the 15 regions

Use data collected for the women screened during the index year. No woman should be counted more than once in the group of columns G, H and I. The women with unknown colposcopy referral status will be automatically calculated in the columns to the right.

G	Referred to colposcopy	These are the women who have been referred to colposcopy. Include both those referred immediately and those referred after "triage" or repeated testing. For example, with stand alone cytology, women could be referred to colposcopy either immediately because cytology was >=LSIL or after triage with HPV of women with ASC-US cytology. All these women must be included. Similarly, some protocol entail referral to colposcopy of women with initial ASC-US cytology if they are >=ASC-US at repeat cytology. Also these cases need to be included. If the local protocol entails that most referrals to colposcopy are generated within 6 months of primary testing, then use as index year 2013 or the most recent year for which you have data available. You should include women screened during the index year and referred to colposcopy up to June, 30 of the subsequent year. If the protocol is "stand alone HPV" or "HPV+cytology co-testing" and it entails that a substantial number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing then use 2012 as index year. You should include women screened during the index year referred to colposcopy up to June, 30, 2014. If the protocol is "stand alone cytology" and it entails that a substantial number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing and screening is not in a steady state then use 2012 as index year. You should include women screened during the index year and referred to colposcopy up to June, 30, 2014. If the protocol is "stand alone cytology" and it entails that a substantial

		number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing and screening is in a steady state then use as index year 2013 or the most recent year for which you have data available. Include all women referred to colposcopy during the index year independently if screened during the index year
H	Neither referred to colposcopy nor to triage	These women are a subset of F. They include women screened in the index year who have neither been referred to colposcopy, nor invited for triage or repeat testing (including repeats due to an inadequate primary test) within the relevant time as specified for columns H and I.
I	Not referred to colposcopy but referred to triage	Not referred to colposcopy but referred to triage or to repeat testing due to an inadequate primary test result. Women screened in the index year who have been referred to triage, or repeat testing due to an inadequate primary test result, but have not been referred to colposcopy. (These comprise a subset of F). taking into account data collected in the time period up to 30 June of the following year. These women are a subset of F. If the local protocol entails that most referrals to colposcopy are generated within 6 months of primary testing, then use as index year 2013 or the most recent year for which you have data available. You should include women screened during the index year and invited for triage/repeat testing but not referred to colposcopy up to June, 30 of the subsequent year. If the protocol is “stand alone HPV” or “HPV+cytology co-testing” and it entails that a substantial number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing then use 2012 as index year. You should include women screened during the index year and referred to, colposcopy up to June, 30, 2014. If the protocol is “stand alone cytology” and it entails that a substantial number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing and screening is not in a steady state then use 2012 as index year. You should include women screened during the index year and referred to colposcopy up to June, 30, 2014. If the protocol is “stand alone cytology” and it entails that a substantial number of colposcopy referrals can be generated by tests done at intervals >=6 months from primary testing and screening is in a steady state then use as index year 2013 or the most recent year for which you have data available. Include all women who, during the index year, had a triage/repeat testing recommending to return to regular interval, independently if screened during the index year

Control sums

If the database for Table 3 is smaller than Table 2, e.g. because data is not available from all regions covered by Table 2, the difference should be reflected in the middle column of the control sums table.

Instructions for Table 4 Colposcopy participation

		Referred to colposcopy	Colposcopy performed (at least once)	Colposcopy not performed	Total	Unknown
× ages	**× initial/subs.**	**J**	**K**	**L**	**K + L**	**J – (K + L)**

J	Referred to colposcopy	This column is the denominator of the "colposcopy participation rate" indicator (see below). If the data on colposcopy referral has been provided for all areas, enter in column J the number of women in column G. If the numerator (number of women referred to colposcopy) has not been provided by all areas, then report the number of women referred to colposcopy in the areas where data on colposcopy referral are available. However, use exactly the same criteria used for column G, simply restricting to the areas for which the numerator is available. Count women only once.
K	Colposcopy performed (at least once)	Women who actually underwent at least one colposcopy among all those referred (see the definition of column G). It is a subset of J. Use the same rules described in instructions about table 3. If the protocol is “stand alone cytology” and screening is in a steady state then include women who had a colposcopy during the index year, independently if primary screening was done during the index year. In all other cases, consider the women screened during the index year who were referred to colposcopy and did actually have at least a colposcopy within the end of follow up as defined for table 3 (6 months or 18 months after primary testing according to cases).
L	Colposcopy not performed	Women who did not undergo colposcopy. It is a subset of J.

Control sums

If the database for Table 4 is smaller than that for Table 3, eg because data is not available from all regions covered by those tables, the difference should be reflected in the middle column of the control sums table.

Instructions for Table 5 Histology outcome

		Individuals screened in index year	Colposcopy performed	No biopsy performed	Unsatisfactory outcome	No CIN/ca detected
× ages	**× initial/subs.**	**M**	**N**	**O**	**P**	**Q**
		Fully invasive squamous carcinoma	**Micro-invasive squamous carcinoma**	**Unstaged invasive squamous carcinoma**	**Invasive adenoCa**	**Other invasive carcinoma**
× ages	**× initial/subs.**	**R**	**S**	**T**	**U**	**V**
		AdenoCa in situ (CGIN)	**CIN3**	**CIN2**	**CIN1**	**Other histology**
× ages	**× initial/subs.**	**W**	**X**	**Y**	**Z**	**AA**

M	Individuals screened in index year	This column refers to women included in column D (or to column C if D is not filled), being the denominator of the "Detection rate" indicator (see below). Hence if the numerator (number of cases detected) has not been provided by all areas, then report the number of women screened in the areas where data on detection are available.
N	Colposcopy performed	This column is a subset of column M. It is the denominator of the "Positive predictive value (PPV)" indicator (see below), so if the numerator (number of cases detected) has not been provided by all areas, then report the number of women who actually underwent colposcopy in the areas where data on detection are available. Use the same criteria as for column K. Simply include only the women from the areas for which numerators are available.

In the group of columns O to AA count each woman only once using the hierarchy of outcomes from most severe to least severe (in practice: R to Z, then AA (preferably not to be used):

O	No biopsy performed	
P	Unsatisfactory histology	This includes inadequate results.
Q	No CIN/ca detected	Individuals with colposcopy but not biopsy taken or no CIN detected at histology.
R	Fully invasive squamous carcinoma	FIGO stage >1A1. Do not include 1A if not further specified if 1A1 or 1A2.
S	Micro-invasive squamous carcinoma	FIGO stage 1A1. Include 1A if not further specified if 1A1 or 1A2.
T	Unstaged invasive squamous carcinoma	
U	Invasive adenocarcinoma	Include adenosquamous carcinoma.
V	Other invasive carcinoma	
W	Adenocarcinoma in situ (CGIN)	
X	CIN3	
Y	CIN2	
Z	CIN1	
AA	Other histology	

All columns from O to AA are subsets of column N See also the definition of column G.

Use the same rules of inclusion described in instructions about table 3. If the protocol is “stand alone cytology” and screening is in a steady state then consider the histology of women who had a colposcopy during the index year, independently of primary screening having been done during the index year. Consider just one histology per woman, i.e. the worse obtained during the index year. In all other cases, consider the histologies of the women screened during the index year who were referred to colposcopy and did actually

have at a colposcopy within the end of follow up as defined for table 3 (6 months or 18 months after primary testing according to cases). Again consider just one histology per woman (the worst within follow-up).

Control sums

If the database for Table 5 is smaller than that for Tables 2, 3 or 4, eg because data is not available from all regions covered by those Tables, the difference(s) should be reflected in the middle column of the control sums tables.

Indicators

Data collected in the tables allows the calculation of the following indicators:

Indicator	Numerator	Denominator
Coverage by invitation	**To be calculated taking into account the different protocols**	
Coverage by examination		
Participation rate	**C**	**B**
Colposcopy referral rate	**G**	**G+H+I**
Colposcopy participation rate	**K**	**K+L**
DR CIN2+	**R+S+T+U+V+W+X+Y**	**M**
DR CIN3+	**R+S+T+U+V+W+X**	**M**
PPV CIN2+	**R+S+T+U+V+W+X+Y**	**N**
PPV CIN3+	**R+S+T+U+V+W+X**	**N**

9.4.5. Colorectal cancer screening questionnaire

Country/period of data collection

0.1	Date of data entry	DATE
0.2	Country name	TEXT
0.3	Name of region or geographical area (if reporting only part of the country)	TEXT
0.4	Notes	TEXT

Identification of responder

1.1	Name	TEXT
1.2	Organisation	TEXT
1.3	E-mail Address	TEXT
1.4	Additional e-mail address	TEXT
1.5	Phone number	TEXT
1.6	Additional phone number	TEXT
1.7	Fax number	TEXT
1.8	Occupational or professional activity (e.g. management, type of health profession, statistics, epidemiology, etc.)	TEXT
1.9	Position of responder in organisation	TEXT
1.10	Notes	TEXT

Programme and policy

2.1	Programme status	• Planning phase • Pilot phase • Rollout ongoing • Rollout complete (90% of the eligible population in the country or region served by a respective programme have been invited at least once and all elements of the screening process are fully functional)
2.2	Year screening started	NUMBER
2.3	Type of screening programme (if both population-based and opportunistic, please fill in two separate questionnaires, one for each)	• Population-based, organised screening • Opportunistic screening • No programme at all
2.4	Please describe the levels at which your programme is managed (national and/or regional/local level) and the activities managed at each level.	TEXT

2.5	Does the country/region have a public screening policy?	YES / NO
2.6	How is it documented?	• In a law • In an official recommendation, decision or directive
2.7	Specify the source, including a reference to a web link (URL) if available	TEXT
2.8	At what level is the screening programme administered?	• National • Regional • Local • Other
2.9	Is there a team responsible for implementing the screening policy?	YES / NO
2.10	Is the team responsible for coordinating delivery of the service?	YES / NO
2.11	Is the team responsible for maintaining requisite quality?	YES / NO
2.12	Is the team responsible for reporting performance and results?	YES / NO
2.13	How is the programme funded?	• Public • Private • Both public and private (i.e. mixed)
2.14	Please specify	TEXT
2.15	Are government funds a source of financing?	YES / NO
2.16	Is there only one national channel for the whole activity or several channels (e.g. one channel for non-population-based e.g. reimbursements, and one or many for the programme)?	• Only one channel • Several channels
2.17	Is health insurance a source of funding?	YES / NO
2.18	Is charity a source of funding?	YES / NO
2.19	Are there other sources of funding?	YES / NO
2.20	Please specify the other sources of funding	TEXT
2.21	Notes	TEXT
Data collection and analysis		
3.1	Are there screening registers at the REGIONAL or LOCAL level (for collection, management and analysis of screening data)?	YES / NO
3.2	Number of regional / local screening registers	NUMBER
3.3	Are there screening registers at the NATIONAL level (for collection, management	YES / NO

	and analysis of screening data)?	
3.4	Are data at the national collecting center collected as aggregated data?	YES / NO
3.5	Are data at the national collecting center collected as individual data?	YES / NO
3.6	Are data regarding opportunistic and invitational tests stored in the same manner?	YES / NO
3.7	Are screening data linked with cancer registries?	YES / NO
3.8	On a regular basis?	YES / NO
3.9	How often?	TEXT
3.10	For which purposes?	TEXT
3.11	Are reports published?	YES / NO
3.12	Please briefly describe and send a copy or the URL	TEXT
3.35	Notes	TEXT
Quality control & reporting		
4.1	Is there any system of quality control of data collection?	YES / NO
4.2	Does the system produce routine feedbacks on data inconsistencies?	YES / NO
4.3	Are screening monitoring results produced?	YES / NO
4.4	On a regular basis?	YES / NO
4.5	How often?	TEXT
4.6	For which purposes?	TEXT
4.7	Are reports published?	YES / NO
4.8	Please briefly describe and send a copy or the URL	TEXT
4.9	As a result of collecting and analyzing screening programme data, have changes been made to the screening program, and when were they made?	TEXT
4.10	Notes	TEXT
Invitation, type of test and screening interval		
5.1	Does your programme issue individual invitations?	YES / NO
5.2	How are people invited?	TEXT
5.3	What institution or organization is responsible	TEXT

	for sending invitations and what database(s) is/are used as the source(s) of data for invitations?	
5.4	How do you avoid excessive opportunistic screening?	TEXT
5.5	Are opportunistic and invitational screening integrated into the screening programme monitoring and invitation system?	YES / NO
5.6	Does the programme invite all women in the eligible target population or exclude those who have recently been screened opportunistically?	TEXT
5.7	What does the invitation include?	• A pre-fixed, modifiable appointment • An invitation to get in touch to organise an appointment • Other
5.8	Specify	TEXT
5.9	Does your programme consider eligibility or exclusion criteria other than age, gender and geographical area?	YES / NO
5.10	Describe these eligibility criteria	TEXT
5.11	Do any programme you are reporting on use guaiac based faecal occult blood testing (gFOBT) as a screening test?	YES / NO
5.12	Age group targeted (gFOBT)	RANGE
5.13	Screening interval in years (gFOBT)	NUMBER
5.14	How are patients invited to perform gFOBT?	• Personal invitation by mail • Other
5.15	Specify	TEXT
5.16	Please indicate how kits are distributed (e.g. mailed with personal invitation, obtained from General Practitioner, pharmacy for out-patient clinics, distributed by volunteers, etc...)	TEXT
5.17	Please indicate how many faecal samples are returned and by which method (e.g. by mail, delivered to pharmacy, out-patient clinics, etc)	TEXT
5.18	Do any programme you are reporting on use faecal immunochemical testing (FIT) as a screening test?	YES / NO
5.19	Age group targeted (FIT)	RANGE
5.20	Screening interval in years (FIT)	NUMBER
5.21	How are patients invited to perform FIT?	• Personal invitation by mail • Other

5.22	Specify	TEXT
5.23	Please indicate how kits are distributed (e.g. mailed with personal invitation, obtained from General Practitioner, pharmacy for out-patient clinics, distributed by volunteers, etc...)	TEXT
5.24	Please indicate how many faecal samples are returned and by which method (e.g. by mail, delivered to pharmacy, out-patient clinics, etc)	TEXT
5.25	Please indicate the FIT manufacturer and type of test	TEXT
5.26	Do any programme you are reporting on use flexible sigmoidoscopy (FS) as a screening test?	YES / NO
5.27	Age group targeted (FS)	RANGE
5.28	Is FS offered only once in the lifetime?	YES / NO
5.29	Screening interval in years (FS)	NUMBER
5.30	Please indicate how patients are invited to perform FS (e.g. by mail with appointment specifying time and place of examination, by mail without appointment, by General Practitioner, etc...)	TEXT
5.31	Are FS screening examinations performed in dedicated endoscopy units?	YES / NO
5.32	Describe briefly (e.g. run by the programme, certified facilities commissioned by the programme, ect)	TEXT
5.33	Do any programme you are reporting on use total colonoscopy (TC) as a screening test?	YES / NO
5.34	Age group targeted (TC)	RANGE
5.35	Is TC offered only once in the lifetime?	YES / NO
5.36	Screening interval in years (TC)	NUMBER
5.37	Please indicate how patients are invited to perform TC (e.g. by mail with appointment specifying time and place of examination, by mail without appointment, by General Practitioner, etc...)	TEXT
5.38	Are TC screening examinations performed in dedicated endoscopy units?	YES / NO
5.39	Describe briefly (e.g. run by the programme, certified facilities commissioned by the programme, ect)	TEXT
5.40	If more than one type of screening test is used	TEXT

	in the programmes you are reporting on, please explain any restrictions that use of one test may have on use of another (e.g. is a person only entitled to be screened with one test in a given period?)	
5.41	Notes	TEXT

Follow-up colonoscopy for further assessment of a positive screening test

6.1	Indicate the algorithm/s for determining when a screening test is positive (ie leads directly to referral to follow-up colonoscopy) for screenees tested with FOBT	TEXT
6.2	Indicate the rules for determining when a screening test is positive (ie leads directly to referral to follow-up colonoscopy) for screenees tested with FIT (i.e. indicate the semiquantitative cut-off concentration of Hb and any other rule that may exist i	TEXT
6.3	Indicate the rules for determining if referral for follow-up colonoscopy is required if the programme/s reported use FS or TC as screening tests	TEXT
6.4	If further assessment is needed, do programmes actively invite for it?	YES / NO
6.5	If an FOBT/FIT is positive, or if follow-up colonoscopy is needed after an endoscopic screening test, does the programme arrange for an appointment and actively invite the participant to the endoscopy unit?	YES / NO
6.6	How does the participant obtain a follow-up colonoscopy	TEXT
6.7	Briefly describe how an appointment is arranged (e.g. is a letter sent indicating the time and place of a colonoscopy?)	TEXT
6.8	Is follow-up colonoscopy performed in dedicated facilities?	YES / NO
6.9	Describe briefly (e.g. run by the programme, certified facilities commissioned by the programme, ect)	TEXT
6.10	Notes	TEXT

Post-polypectomy surveillance and screening of patients

7.1	Does the screening programme have a post-polypectomy surveillance policy?	YES / NO
7.2	Please describe briefly the algorithm	TEXT

7.3	Does the screening programme invite to screening after cancer diagnosis?	YES / NO
7.4	Is the regular screening protocol applied?	YES / NO
7.5	At which interval are these patients invited, for how long and for which test?	TEXT
7.6	Recommended surveillance interval (years) for single advanced adenomas >20 mm.	NUMBER
7.7	Recommended surveillance interval (years) for single or multiple advanced adenomas 10-20 mm.	NUMBER
7.8	Recommended surveillance interval (years) for single or multiple advanced adenomas <10 mm.	NUMBER
7.9	Recommended surveillance interval (years) for <3 low risk adenomas <10 mm.	NUMBER
7.10	Recommended surveillance interval (years) for 3+ low risk adenomas <10 mm.	NUMBER
7.11	Recommended surveillance interval (years) for hyperplastic polyps	NUMBER
7.12	Notes	TEXT

Monetary costs, cost effectiveness and equity

8.8	Is in principle the screening test free of charge (no copayment) for the screenee?	YES / NO
8.9	Is in principle the assessment free of charge (neither full payment nor copayment) for the screenee?	YES / NO
8.10	Are any of the assessment costs reimbursed/covered by public sources?	YES / NO
8.11	Are there exceptions to what is indicated in the answers to the previous questions?	YES / NO
8.12	Describe	TEXT
8.13	Have you studied screening costs or cost-effectiveness in your country/region?	YES / NO
8.14	Specify the source of the publication	TEXT
8.15	What cost has been studied (type of cost and amount in euros)?	TEXT
8.16	Are you aware of any population group not covered by screening?	YES / NO
8.17	Describe	TEXT
8.18	Is participation rate periodically analysed	YES / NO

	according to socio-economic status, education or ethnicity?	
8.19	Describe	TEXT
8.20	Have barriers to participation been studied and identified or has any kind if intervention to reduce inequalities been conducted?	YES / NO
8.21	Describe and provide references as PDF copies	TEXT
8.22	Notes	TEXT

Quality of life and ethical issues

9.1	Has quality of life been studied in relation to screening, assessment or referral?	YES / NO
9.2	Describe	TEXT
9.3	Do you require signing informed consent to participate in screening?	YES / NO
9.4	Describe	TEXT
9.5	Do you provide written information on benefits and harms of screening at the time of invitation or examination?	YES / NO
9.6	Describe	TEXT
9.7	Notes	TEXT

9.4.6. Colorectal cancer screening tables

Table 1 Population ()

Country		
Index year		
Gender		< Specify either "Men", "Women" or "Men + Women"
Screening interval		years
Screening test		< Specify either gFOBT or FIT

A

	Target population	Annual target population	< Total target population ÷ screening intervals
40-44			
45-49			
50-54			
55-59			
60-64			
65-69			
70-74			
75-79			
Unknown *			
Total	**0**	**0**	

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Table 2 Screening invitations and screening tests ()

	B Individuals personally invited in	C Individuals screened of invited in	D Individuals screened in
40-44			
45-49			
50-54			
55-59			
60-64			
65-69			
70-74			
75-79			
Unknown *			
Total	0	0	0
	^ Invited between Jan 1 - Dec 31,	^ Screened between Jan 1, - June 30, 1	^ Screened between Jan 1 - Dec 31, regardless of when invited

Participation rate

	Individuals screened of invited in	Individuals personally invited in	%
40-44	0	0	
45-49	0	0	
50-54	0	0	
55-59	0	0	
60-64	0	0	
65-69	0	0	
70-74	0	0	
75-79	0	0	
Unknown	0	0	
Total	0	0	

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Invitation coverage

	Individuals personally invited in	Target population ÷ screening interval	%
40-44	0		
45-49	0		
50-54	0		
55-59	0		
60-64	0		
65-69	0		
70-74	0		
75-79	0		
Unknown *	0		
Total	0	0	

Examination coverage

	Individuals screened of invited in	Target population ÷ screening interval	%
40-44	0		
45-49	0		
50-54	0		
55-59	0		
60-64	0		
65-69	0		
70-74	0		
75-79	0		
Unknown	0		
Total	0	0	

Table 3 Further assessment indication ()

		F	G	H		I		Rate of indication for follow-up colonoscopy		
		Individuals screened of invited in	Positive screening tests	Negative screening tests	Total adequate tests	Inadequate screening tests	Test result unknown	Positive	Total	%
Initial screening	40-44	0			0		0			
	45-49	0			0		0			
	50-54	0			0		0			
	55-59	0			0		0			
	60-64	0			0		0			
	65-69	0			0		0			
	70-74	0			0		0			
	75-79	0			0		0			
	Unknown *	0			0		0			
	Total	**0**	**0**	**0**	**0**	**0**	0			
Subsequent screening	40-44	0			0		0			
	45-49	0			0		0			
	50-54	0			0		0			
	55-59	0			0		0			
	60-64	0			0		0			
	65-69	0			0		0			
	70-74	0			0		0			
	75-79	0			0		0			
	Unknown *	0			0		0			
	Total	**0**	**0**	**0**	0	**0**	0			
Don't know if initial or subs.	40-44	0			0		0			
	45-49	0			0		0			
	50-54	0			0		0			
	55-59	0			0		0			
	60-64	0			0		0			
	65-69	0			0		0			
	70-74	0			0		0			
	75-79	0			0		0			
	Unknown *	0			0		0			
	Total	0	0	0	0	0	0			
Total	40-44	0	0	0	0	0	0			
	45-49	0	0	0	0	0	0			
	50-54	0	0	0	0	0	0			
	55-59	0	0	0	0	0	0			
	60-64	0	0	0	0	0	0			
	65-69	0	0	0	0	0	0			
	70-74	0	0	0	0	0	0			
	75-79	0	0	0	0	0	0			
	Unknown *	0	0	0	0	0	0			
	Total	0	0	0	0	0	0			

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Individuals screened of invited in documented in Table 3	Individuals screened of invited in not documented in Table 3	Individuals screened of invited in documented in Table 2
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown	0		0
Total	0		0

Table 4 Participation in follow-up colonoscopy for further assessment after a positive screening test ()

		J	K	L			Follow-up colonoscopy performance rate		
		Positive screening tests in	Follow-up colonoscopy performed	Follow-up colonoscopy not performed	Total known colonoscopy performance status	Unknown colonoscopy performance status	Follow-up colonoscopy performed	Total known colonoscopy performance status	%
Initial screening	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	0	0			
Subsequent screening	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	0	0			
Don't know if initial or subs.	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	0	0			
Total	40-44	0	0	0	0	0			
	45-49	0	0	0	0	0			
	50-54	0	0	0	0	0			
	55-59	0	0	0	0	0			
	60-64	0	0	0	0	0			
	65-69	0	0	0	0	0			
	70-74	0	0	0	0	0			
	75-79	0	0	0	0	0			
	Unknown *	0	0	0	0	0			
	Total	**0**	**0**	**0**	0	0			

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Positive screening tests in documented in Table 4	Positive screening tests in not documented in Table 4	Positive screening tests in documented in Table 3
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown	0		0
Total	0		0

Table 5 Completion of follow-up colonoscopy for further assessment after a positive screening test ()

		M	N	O			Completion rate follow-up colonoscopy		
		Follow-up colonoscopy performed	Follow-up colonoscopy completed	Follow-up colonoscopy incomplete	Total known follow-up colonoscopy completion status	Unknown follow-up colonoscopy completion status	Follow-up colonoscopy completed	Total known follow-up colonoscopy completion status	%
Initial screening	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Subsequent screening	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Don't know if initial or subs	40-44	0			0	0			
	45-49	0			0	0			
	50-54	0			0	0			
	55-59	0			0	0			
	60-64	0			0	0			
	65-69	0			0	0			
	70-74	0			0	0			
	75-79	0			0	0			
	Unknown *	0			0	0			
	Total	**0**	**0**	**0**	**0**	**0**			
Total	40-44	0	0	0	0	0			
	45-49	0	0	0	0	0			
	50-54	0	0	0	0	0			
	55-59	0	0	0	0	0			
	60-64	0	0	0	0	0			
	65-69	0	0	0	0	0			
	70-74	0	0	0	0	0			
	75-79	0	0	0	0	0			
	Unknown *	0	0	0	0	0			
	Total	**0**	**0**	**0**	**0**	**0**			

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Follow-up colonoscopy performed documented in Table 5	Follow-up colonoscopy performed not documented in Table 5	Follow-up colonoscopy performed documented in Table 4
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown	0		0
Total	0		0

Table 6 Screening outcome ()

		P	Q	R	S	T	U			V
		Individuals screened of invited in	Follow-up colonoscopy performed	No lesion detected	Adenomas	Colorectal cancers	Other lesions	Total screening outcome known	Screening outcome unknown	Advanced adenomas
Initial screening	40-44	0	0					0	0	
	45-49	0	0					0	0	
	50-54	0	0					0	0	
	55-59	0	0					0	0	
	60-64	0	0					0	0	
	65-69	0	0					0	0	
	70-74	0	0					0	0	
	75-79	0	0					0	0	
	Unknown *	0	0					0	0	
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Subsequent screening	40-44	0	0					0	0	
	45-49	0	0					0	0	
	50-54	0	0					0	0	
	55-59	0	0					0	0	
	60-64	0	0					0	0	
	65-69	0	0					0	0	
	70-74	0	0					0	0	
	75-79	0	0					0	0	
	Unknown *	0	0					0	0	
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Don't know if initial or subs	40-44	0	0					0	0	
	45-49	0	0					0	0	
	50-54	0	0					0	0	
	55-59	0	0					0	0	
	60-64	0	0					0	0	
	65-69	0	0					0	0	
	70-74	0	0					0	0	
	75-79	0	0					0	0	
	Unknown *	0	0					0	0	
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	40-44	0	0	0	0	0	0	0	0	0
	45-49	0	0	0	0	0	0	0	0	0
	50-54	0	0	0	0	0	0	0	0	0
	55-59	0	0	0	0	0	0	0	0	0
	60-64	0	0	0	0	0	0	0	0	0
	65-69	0	0	0	0	0	0	0	0	0
	70-74	0	0	0	0	0	0	0	0	0
	75-79	0	0	0	0	0	0	0	0	0
	Unknown *	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Control sums

	Individuals screened of invited in documented in Table 6	Individuals screened of invited in not documented in Table 6	Individuals screened of invited in documented in Table 2
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown	0		0
Total	0		0

	Follow-up colonoscopy performed documented in Table 6	Follow-up colonoscopy performed not documented in Table 6	Follow-up colonoscopy performed documented in Table 4
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown	0		0
Total	0		0

	Individuals screened of invited in documented in Table 6	Individuals screened of invited in not documented in Table 6	Individuals screened of invited in documented in Table 3
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown	0		0
Total	0		0

	Follow-up colonoscopy performed documented in Table 6	Follow-up colonoscopy performed not documented in Table 6	Follow-up colonoscopy performed documented in Table 5
40-44	0		0
45-49	0		0
50-54	0		0
55-59	0		0
60-64	0		0
65-69	0		0
70-74	0		0
75-79	0		0
Unknown	0		0
Total	0		0

Table 7 Recommendation for management of advanced neoplasia ()

		Endoscopic excision	Surgical referral	Unknown	Total
Advanced adenomas	Initial screening				0
	Subsequent screening				0
	Initial/subsequent unknown				0
Colorectal cancers	Initial screening				0
	Subsequent screening				0
	Initial/subsequent unknown				0
Total	Initial screening	0	0	0	0
	Subsequent screening	0	0	0	0
	Initial/subsequent unknown	0	0	0	0

		Endoscopic excision	Surgical referral	Unknown
Advanced adenomas	Initial screening	W	X	Y
	Subsequent screening			
	Initial/subsequent unknown			
Colorectal cancers	Initial screening	Z	AA	AB
	Subsequent screening			
	Initial/subsequent unknown			

Comments and assumptions

Please write here, referring to the relevant Table, any note or specific assumption you need to communicate or any comments. Thank you!

Instructions to data providers on how to fill up colorectal data tables

File **SR_Tables_COLON.xls**

General information and instructions

Please send your completed data files by email to the IARC coordination office at: [redacted]

If screening is not implemented uniformly across the country or region on which you are reporting (ie there is regional variation in the rollout of screening or there is regional variation in the eligible age range) please report all of the screening activity in the tables and explain the variation in an accompanying email when you send in the completed tables.,

If you have questions or require assistance in filling in this or any of the data tables, please contact us by email [redacted]. For detailed questions we may arrange an appointment for a teleconference or an audiovisual conference with a collaborating expert.

To promote comparability and epidemiologic analysis of the collected aggregated data, the requested data is broken down by the following three unique variables:

- Country (or Region)
- Index year
- Gender

Gender stratification

- If you can provide data separately for males and females, please fill in **two** distinct Excel files, specifying in Table 1 the set you are referring to.
- If you cannot provide data separately for males and females, please fill in **one** single set Excel file including both genders and specifying Gender = “Both” in Table 1.

Age group stratification

Data in most of the tables should be stratified by Age group. Please check the availability of your data and follow the corresponding instructions (according to these three scenarios):

1) If data **can be stratified** by age group, please fill in the first 8 rows.

40-44	**10000**
45-49	**10000**
50-54	**10000**
55-59	**10000**
60-64	**10000**
65-69	**10000**
70-74	**10000**
75-79	**10000**
Unknown	
Total	**[Automatic sum of above figures]**

2) If data **cannot be stratified** by age group, put the total amount irrespective of age in the last row.

40-44	
45-49	
50-54	
55-59	
60-64	
65-69	
70-74	
75-79	
Unknown	**80000**
Total	**[Automatic sum of above figures]**

3) In a **mixed situation**, with data from some areas which can be stratified and other data that cannot be stratified, please fill separately the first rows for the formers and the last row for the latter.

40-44	**9000**
45-49	**9000**
50-54	**9000**
55-59	**9000**
60-64	**9000**
65-69	**9000**
70-74	**9000**
75-79	**9000**
Unknown	**8000**
Total	**[Automatic sum of above figures]**

◄ **Numbers referring to areas that can be stratified**

◄ **N. referring to areas not stratifiable**

Always check the total figures at the bottom of each table to be sure that the sum of the strata is the total number expected.

Instructions for Table 1 Population

Country (or Region): _____
Country or area to which all tables refer.

Index year: _____
Please fill in all tables using the data from the calendar year 2013. If data from that year are not yet available, use the most recent available year and indicate the year in Table 1. Note that in Table 2 of each Excel file some data will be required up to June of the following year.

Gender: _____
Specify “Men” if the table refers to men only.
Specify “Women” if the table refers to women only.
Specify “Men + Women” if the table do not distinguish between men and women.

Screening interval: _____ (years)
Interval (in years) between routine screens decided upon in each screening programme dependent on screening policy.

Screening test Indicate either gFOBT or FIT.
If you use other protocols, please contact us [redacted] to obtain appropriate data tables to fill in.

	Total target population
× ages	**A**

A	Total target population	Total number of age-eligible individuals obtained from official statistics (irrespective of the screening interval).

Instructions for Table 2 Screening invitations and screening tests

	Individuals personally invited in index year	Individuals screened of invited in index year	Individuals screened in index year
× ages	**B**	**C**	**D**

Columns B and C are requested only for “Population based” screening.
The classification “Population based screening” applies to programmes where individual invitations are sent to the eligible population..
The classification “Non population based screening” applies to programmes where individual invitation is not sent to the eligible population.

B	Individuals personally invited	Requested only for “population based” screening, it includes all personally invited individuals (not counting reminders) in the period to which data refer. Please indicate the number of women invited from January 1st to December 31st of the index year.
C	Individuals screened of invited	Requested only for “population based” screening, it is the subset of the individuals-invited-in-index-year who received a test – counting any test performed up to June of the following year. (Invitation cohort). It is also acceptable, assuming steady state, to estimate this number using the number of attendees in the index year - regardless of their invitation date.
D	Individuals screened in index year	Individuals who received a test in index year - regardless of when invited.

Initial/subsequent tests

Data in tables 3, 4, 5, 6, 7 should be stratified per Initial/subsequent tests, if the programme(s) are population-based:

- **Initial screening** is the first screening examination of individuals within the screening programme, regardless of the organisational screening round in which the examination takes place. Include also screening tests or examinations performed in a population based screening programme before the first invitation is received (these examinations are often referred to as “spontaneous tests”).
- **Subsequent screening** includes all screening examinations of individuals within the screening programme following an initial screening examination, regardless of the organisational screening round in which the examination is performed.
- **Unknown if initial or subsequent** strata should be used to enter the data of screened individuals for which the above distinction is not available.

The numbers collected in the three subtables should refer to strictly distinct sets of people. Always check the total figures at the bottom of the three tables to be sure that the sum of the strata is the total number expected.

Instructions for Table 3 Further assessment indication

		Individuals screened in index year	Positive	Negative	Total	Unknown
× ages	**× initial/subseq.**	**F**	**G**	**H**	**G + H**	**F – (G + H)**

F	Individuals screened in index year	This column refers to the denominator of the "Recall rate" indicator, so if the numerator (number of further assessment recommended) has not been provided by all areas, then report the number of individuals screened in the areas where data on number of further assessment recommendation are available.
G	Positive	Individuals who have been recommended further assessment (a subset of F).
H	Negative	Individuals who have not been recommended further assessment (a subset of F).
I	Inadequate	Individuals who have a technically inadequate screening test (a subset of F).

Control sums

If the database for Table 3 is smaller than Table 2, eg because data is not available from all regions covered by Table 2, the difference should be reflected in the middle column of the control sums table.

Table 4 Participation in follow-up colonoscopy for further assessment after a positive screening test

		Positive	Follow-up colonoscopy performed	Follow-up colonoscopynot performed	Total	Unknown
× ages	**× initial/subs.**	**J**	**K**	**L**	**K + L**	**J – (K + L)**

J	Positive	This column refers to the denominator of the "Further assessment participation rate" indicator, so if the numerator (number of further assessment performed) has not been provided by all areas, then report the number of positive individuals in the areas where data on number of further assessment performance are available.
K	Further assessment performed	Individuals who actually underwent further assessment (it is a subset of J).
L	Further assessment not performed	Individuals who didn’t undergo further assessment (it is a subset of J).

Control sums

If the database for Table 4 is smaller than Table 3, eg because data is not available from all regions covered by Table 3, the difference should be reflected in the middle column of the control sums table.

Table 5 Completion of follow-up colonoscopy for further assessment after a positive screening test

		Follow-up colonoscopyperformed	Follow-up colonoscopy completed	Follow-up colonoscopy incomplete	Total	Unknown
× ages	**× initial/subs.**	**M**	**N**	**O**	**N + O**	**M – (N + O)**

M	Follow-up colonoscopy performed	Individuals who actually underwent follow-up colonoscopy for further assessment in areas where data on colonoscopy completion is available.
N	Follow-up colonoscopy completed	Individuals with complete follow-up colonoscopy (a subset of M).
O	Follow-up colonoscopy incomplete	Individuals with incomplete colonoscopy (a subset of M).

Control sums

If the database for Table 5 is smaller than Table 4, eg because data is not available from all regions covered by Table 4, the difference should be reflected in the middle column of the control sums table.

Instructions for Table 6 Screening outcome

		Individuals screened in index year	Follow-up colonoscopy performed	No lesion detected	Adenomas	Colorectal cancers	Other lesions	Advanced adenomas
× ages	**× initial/subs.**	**P**	**Q**	**R**	**S**	**T**	**U**	**V**

For all people counted in column P one outcome (the most severe) should be entered in one of the columns Q to U (decreasing order of severity: colorectal cancer, adenoma, other lesion, no lesion). Advanced adenomas are counted both as an adenoma in column S and as an advanced adenoma in column V; however, advanced adenomas should not be entered in column V if the patient also has a colorectal cancer.

P	Individuals screened in index year	This column refers to the denominator of the "Detection Rate" indicator, so if the numerator (number of cases detected) has not been provided by all areas, then report the number of individuals screened in the areas where data on detection are available.
Q	Follow-up colonoscopy performed	This column refers to the denominator of the "Positive Predictive Value" indicator, so if the numerator (number of cases detected) has not been provided by all areas, then report the number of individuals who actually underwent follow-up colonoscopy for further assessment in the areas where data on detection are available. ((NOTE: it seems better to use Table 4 for the control sum))xx
R	No lesion detected	Follow-up colonoscopies with negative outcome.
S	Adenomas	Adenomas detected at follow-up colonoscopy (It includes also in situ or intramucosal cancers).
T	Colorectal cancers	Colorectal cancers detected at follow-up colonoscopy (only invasive lesions).
U	Other lesions	Other lesions detected at follow-up colonoscopy.
V	Advanced adenomas	Advanced adenomas detected at follow-up colonoscopy (It includes also in situ or intramucosal cancers).

Control sums

If the database for Table 6 is smaller than Tables 2-5 (individuals screened) or Table 4 (follow-up colonoscopy performed), eg because respective data is not available from all regions covered by Table 6, the difference should be reflected in the middle columns of the control sums tables.

Instructions for Table 7 Recommendation for management of advanced neoplasia

		Endoscopic excision	Surgical referral	Unknown
× initial/subs.	**Advanced adenomas**	**W**	**X**	**Y**
× initial/subs.	**Colorectal cancers**	**Z**	**AA**	**AB**

W	Advanced adenomas, endoscopic excision recommended
X	Advanced adenomas, surgical excision recommended.
Y	Advanced adenomas, recommended managementunknown.
Z	Colorectal cancers, endoscopic excision recommended
AA	Colorectal cancers, surgical excision recommended
AB	Colorectal cancers, recommended management unknown.

Indicators

Data collected in the tables allows the calculation of the following indicators:

Indicator	Numerator	Denominator
Invitation coverage (of target population)	**B**	**A** / interval
Examination coverage (of target population)	**C** or **D**	**A** / interval
Participation rate	**C**	**B**
Rate of indication for follow-up colonoscopy	**G**	**G+H**
Follow-up colonoscopy participation rate	**K**	**K+L**
Completion rate follow-up colonoscopy	**N**	**N+O**
DR advanced adenomas	**V**	**P**
PPV advanced adenomas	**V**	**Q**
DR colorectal cancers	**T**	**P**
PPV colorectal cancers	**T**	**Q**
Advanced adenomas referred to surgery	**X**	**W+X**
Colorectal cancers referred to endoscopic excision	**Z**	**Z+AA**