Identifying best practice in actions on tobacco smoking to reduce health inequalities

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Executive Summary

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Background

Tobacco control interventions are effective in reducing smoking prevalence and much has been achieved over recent years in the European Union (EU). Nevertheless, tobacco smoking remains an important health issue in the EU28. In 2012, around one in three men and one in four women were still smoking.

A clear social gradient exists, with a higher smoking prevalence found in disadvantaged socio-demographic groups, whether defined using educational attainment, socio-economic status or other characteristics, such as minority grouping. Until recently, tobacco control interventions have not been specifically targeted at these disadvantaged groups. Research on the equity impact of tobacco control interventions is still sparse. Consequently, there has been a need for the development of an evidence base, to help policy makers understand the impact of tobacco control interventions on health inequalities.

The need for evidence has been reinforced by the European Council. It has highlighted the need for equity to be considered in all policies, especially those related to health and lifestyle related behaviours, as these would help the EU strategy "Solidarity in health", which is aimed at reducing health inequalities.

Matrix Knowledge was commissioned by the Consumer, Health and Food Executive Agency (CHAFEA) to undertake this study identifying best practice interventions on tobacco smoking in the EU28 (as well as some other developed economies) to reduce health inequalities.

This study provides an evidence base for tobacco control interventions and how these interventions affect inequalities in health among tobacco smokers, in order to help inform policy development in the EU.

The aim of the study was to:

1. Identify the trends in tobacco smoking in the relevant countries, as well as its contribution to differences in morbidity, mortality and healthy life expectancy between socio-demographic groups.
2. Identify tobacco control interventions as well as any relative effectiveness and cost-effectiveness between socio-demographic groups, and their health equity impacts.
3. Identify interventions from the wider field of health promotion, targeted at other risk factors, which have implications for reducing tobacco smoking related health inequalities.
4. To present recommendations for the development of tobacco control policies which take the effect of these interventions on health inequalities into consideration.

Methods

This study was conducted by thorough analyses of tobacco smoking data from databases, and reviews of published literature evaluating the effectiveness and cost-effectiveness of different interventions and their effects on health inequalities. The details of the methods are as follows:

Statistical analyses: A descriptive statistical analyses was conducted to present available EU information on tobacco smoking in different socio-demographic groups. Two data sources were employed; the Eurobarometer and the European Health Interview Survey (EHIS) from 2008 to date. Eurobarometer data for 2012 is used to describe the current situation, while the changes over time are described by the data from Eurobarometer from 2005 to date.

Literature reviews: Three literature reviews were conducted. The study titles, abstracts and full texts of the search results were screened for relevance using customised inclusion / exclusion criteria. All included studies were assessed for quality, and data extracted from them.

- Review 1: This summarised the literature on the prevalence of tobacco smoking in socio-demographic groups, and how tobacco smoking contributes to inequality in health, in the EU28 and in Iceland, Norway, USA, Australia and Switzerland. This review was conducted in accordance with standard review methodology and included studies published from 2004-2013.

- Review 2: This included studies of the impact of tobacco control interventions on different socio-demographic groups and the cost-effectiveness of such interventions, as well as their equity impacts. This review was conducted using a pragmatic review methodology that consisted of:
    - a review of the most current systematic reviews of tobacco interventions aimed at reducing health inequalities, augmented by primary studies of interest not included in these reviews; and
    - a systematic review of primary studies of cost-effectiveness of tobacco interventions aimed at reducing health inequalities.

  The identification of the reviews and the complementary studies were guided by a tobacco control research expert, who collected and analysed systematic reviews from the last decade, as well as studies of interest not included in these reviews. Studies published via a Medline search up until February 2014 were also included. The cost-effectiveness of relevant interventions were acquired following a systematic search of relevant databases in February 2013. In addition, some studies were included based on expert advice.

- Review 3: The third literature review provides an overview of other health promotion interventions, implemented in disadvantaged socio-demographic groups, to assess whether they could apply to tobacco control policies. A rapid review of published literature reviews and meta-analyses was conducted for this in accordance with standard methodology. A robust search of relevant databases was carried out and included reviews and meta-analyses published from 2008-July 2013.

Study recommendations: The final component of the study provides conclusions and a set of recommendations for policy development of tobacco control measures.

Results

Trends of tobacco smoking

An analysis of tobacco smoking data among EU socio-demographic groups shows that smoking is still common. Data from 2012 shows that one in every three men and one in every four women in the EU smoked. However, data from 2005 to date revealed that when a comparison is made between male and female smokers, there has been stability in the prevalence of tobacco smoking among females, while the number of smokers has decreased slightly among males.

An examination of smoking prevalence data with respect to age shows that the prevalence of smoking has, in general, decreased with increasing age. Data from 2005-2012 shows that the prevalence of smoking for those aged 65 years and above is between 10-15% in the EU. Prevalence stands at about 25% for those aged 55-65 years and 30-40% among those aged below 55 years. The most pronounced change from 2005-2012 was found in the 15-25 years age group, where 36% were smokers in 2005 but only 29% of members of this age group were smoking in 2012. This might reflect the effectiveness of tobacco control interventions particularly among this age group.

The prevalence of tobacco smoking was found to be highest among those who have the lowest incomes. This income gradient is confirmed for the young and middle-age groups, with the prevalence of smoking reducing in tandem with increasing income.

Differences were found to exist in the prevalence of smoking according to social status. The largest differences in smoking prevalence according to social status were found in people younger than 45 years, and most pronounced among males aged 35-44 years. Fifty seven per cent of the males in this group, who specified that they were of a low social status also indicated that they were smokers, compared to 29% among those who indicated that they were of a high social status.

The literature review confirms these findings. Most studies indicate that the prevalence of tobacco smoking reduces with higher educational attainment. In addition, education is directly related to smoking cessation and inversely related to smoking initiation.

The data also indicates that, although there has been a reduction in smoking prevalence among the general population, this is concentrated in particular socio-demographic groups (typically those with higher socio-economic status). This is consistent with the finding that in some countries, like Spain and Portugal, the income and education gradients in relation to smoking have reversed in recent years. At the end of the last century smoking was more frequent among people with high income and educational attainment.

Among women, the relationship between income and smoking is still ambiguous, with smoking still found to be more frequent among high-income females in Italy, Spain, Portugal and Greece. On the whole, however, while men still smoke more than women, the gender gap is narrowing in the EU.

When minority groups are considered, limited evidence was found. They indicate a higher prevalence of smoking among minority groups (such as Roma populations in Europe, caravan travellers in the UK, the native Americans in the USA, and indigenous Australians in Australia), when these groups are compared with the general population.

Contribution of tobacco smoking to health inequalities

A large body of work exists which indicates the contribution of employment and housing to differences in inequalities in health and health outcomes between socio-demographic groups. Findings regarding the impact of tobacco on inequalities in health outcomes were found to be consistent with the evidence regarding smoking prevalence rates among different groups. Consistent evidence from across a range of countries suggests the health inequalities between socio-demographic groups are also related to differences in income, employment status, and educational attainment. Those groups with greater educational attainment and income were found to have a lower contribution from tobacco smoking to their mortality, morbidity and health life expectancy, as compared to groups with lower income and educational attainment.

Studies conducted in North America and in Europe, show that for people in the 35-64 age group, when people of low socio-economic status are compared with their peers in higher social strata, more than half of the difference in mortality risk is accounted for by tobacco smoking.

Impact of tobacco control interventions on health inequalities

The findings of the study show that a number of interventions are effective as tobacco control measures for the general population. However, as the literature review indicates, some of them have a positive health equity impact (thereby reducing health inequalities), some a negative equity impact (thereby increasing health inequalities) while the evidence for the equity impact of others is not conclusive.

This study also found that when interventions are specifically designed and targeted at those groups within which health inequalities exist, their effectiveness, and as a result positive equity value, is much improved. On the other hand, untargeted interventions may actually increase inequalities due to tobacco smoking, despite reducing overall smoking prevalence in the general population.

The main findings of this study with regard to relevant interventions are as follows:

- Increases in the price of tobacco through taxation, have the largest potential for reducing inequalities due to smoking in the general population, with particular impact among low-income groups and young people. There are, however, indications, that substitution effects, such as switching to cheaper brands, might have counter-productive health effects. The higher prevalence of smoking in low-income groups also means that any reduction in health inequalities, derived by the lower smoking rates gained through increasing taxes, may be outweighed in the short term by the financial burden experienced by those smokers who do not quit. As such, the taxes might become increasingly regressive, as the lower income groups would have to pay a larger share of the tax than higher income groups.
- Smoke-free places, as introduced by legislation, have shown some potential to reduce inequalities in smoking. The evidence shows that voluntary smoke-free policies in general have a negative equity impact, as groups within which health inequalities can be found, are relatively disinclined to adopt them. However, when smokers from these groups adopt smoke-free policies, tobacco cessation rates are similar to those found among higher socio-demographic groups.
- Mass media campaigns appear to have a negative or neutral equity impact as, although they are routinely applied to the general population, they are more effective in socio-demographic groups with better socio-economic indices. This study, however, found evidence that mass media campaigns that are emotive,

graphic and / or personal testimony advertisements appear to have more impact on smokers of lower socio-economic status.

▪ Individual interventions to support cessation, such as behavioural support, pharmacotherapy only, internet support and incentives, have either a neutral or negative equity impact when utilised in isolation, i.e. outside of a comprehensive smoking cessation programme.

▪ The provision of high-quality, comprehensive tobacco cessation services to disadvantaged socio-demographic groups, especially when barriers to accessing such services are removed was shown to have a positive equity impact.

▪ In other fields of health promotion, community-based and culturally relevant interventions were reported as effective in reducing health inequalities among disadvantaged groups. This effect was noted, in particular with high-intensity and group-based interventions, situated within the relevant community.

Conclusions

Based on these findings, from the data collection and the literature reviews, it is recommended that:

1. In order to reduce inequalities, any policy framework should include interventions that address needs specific to local populations, and take into consideration the wider social determinants of health.
2. Tobacco control policies, aimed at reducing smoking prevalence and health inequalities, should include a combination of targeted interventions, aimed specifically at the socio-demographic groups that need them.
3. Provision of resources at community level would enable a wider dissemination of community-based and culturally relevant targeted interventions.
4. Barriers to accessing smoking cessation services should be reduced by removing financial, cultural and geographical constraints.
5. Increasing taxation and imposing higher prices on tobacco should be considered, but unwanted substitution effects as well as the regressive nature of the tax need to be taken into account.
6. Marketing campaigns should be designed to have strong impacts on low socio-economic status groups, for instance relying more on television than on printed materials and including strongly emotional messages.
7. There is a need for further research to better understand which interventions narrow rather than widen health inequalities due to smoking, with regard to both prevention of smoking initiation and promotion of smoking cessation.