

Introduction

The initiative of the WAAAR against Antimicrobial Resistance, focusing on protecting human health

On Dec 2, 2011, the NGO called **ACdeBMR** (l'Alliance Contre le développement des Bactéries Multi-Résistantes, the Alliance against the Development of Multi-Drug Resistant Bacteria) was created to support, develop and help bring about national and international plans against antibiotic resistance. The name 'ACdeBMR, is a pun in French from its pronunciation, which is similar to **Assez de BMR**, meaning: *Enough with Multi-Drug-Resistant Bacteria*, or: *Too Many MDR-B*! Subsequently, as its action expended internationally it adopted the English "World Alliance Against Antibiotic Resistance" (WAAAR)¹.

At core, a group created to do lobbying and advocacy for efficient multi-pronged action against the development of "MDR-B", the WAAAR main, central (and rather unique) mobilization is to propose that "the concept of antibiotic" should be on the list of the intangible cultural heritage, as defined by UNESCO.

All initiatives ought to be channeled on the idea of 'preserving' antibiotics.

The action plan and initiatives of the WAAAR Alliance are in agreement with the EU's 2011 Action Plan against the rising threats from antimicrobial resistance² as well as specifically the Third Health Programme 2014-2020 funding health initiatives³.

Background - Case Study:

Antibiotics are the most central part of post WWII modern health system as we know it. Without antibiotics, no surgery is possible, without antibiotics, no cancer treatment. Without antibiotics, a simple bicycle fall can mean death. Yet, **humanity is dilapidating this precious resource**, through overuse and inappropriate use, either in human health, or, even worse, to fatten animals for meat, and has been doing so for decades, not listening to those scientists and conscientious physicians, such as WAAAR founder and president Dr Jean Carlet, pulling alarm bells. Effectively, antibiotics continue to be used needlessly and recklessly. In the summer of 2013, Dr Margaret Chan, WHO Director General-announced: "We have entered the post-antibiotics era".

Governments have been slow to respond even though all knowledgeable medical authorities know the danger is mounting. While the first Resolution on antibiotic resistance would pass the United Nations World Health Assembly, in 2001, and WHO drafted a major report on the issue, "it took another 14 years for Member States to adopt a plan of Action" (WHA of May 2015), said Dr Mario Raviglione, Executive Director of the WHO Global Tuberculosis Program. The November 2011 launch of the EU program of action in Brussels clearly acknowledged that while the problem had been recognized globally and in the EU in particular: "Ongoing efforts are not sufficient"⁵.

This even though actions and strategic plans had been acted on at EU level over the years: "In the field of human medicine, the 2001 Community Strategy against AMR2 called for EU actions against AMR in the fields of surveillance, research, prevention and international cooperation. This led to the adoption of EU wide recommendations and guidelines against AMR."

And, very importantly, the historic 2006 EU decision to ban use of antibiotics as growth promoters in husbandry, a decision in urgent need of adoption in the rest of the world, judging from the scare on the spread of last resort antibiotic Colistin (polymyxin E) via the food chain in the EU, as reported in the European Medicines Agency (EMA) report⁶.

The weaknesses in the battle against antibiotic resistance have remained:

- ➤ Weak infection prevention and control (IPC) in the majority of health settings (WHO study in 2015, reported that as many as 23 countries in the WHO EURO region of 53 member states, did not have functioning IPC systems⁷). The situation is worse in low income countries or poor regions in emerging countries. **The resilience of health systems to the surge of AMR infections is therefore weak** while health settings are 'amplifiers' of AMR spread. The G7 Health Ministers meeting in Berlin (Oct 2015) placed IPC highest on the AMR agenda.
- ➤ The release of antibiotic containing waste in the environment, and of antibiotic-resistant bacteria containing waste from husbandry, continues. There is an urgent need for legislation and use of technologies to prevent this release into water and soil, the places from which emerge bacterial genes of resistance to antibiotics.
- ► Use of diagnostic tools is low, and antibiotics are still prescribed needlessly by doctors, pharmacists, over the counter shops, hospitals, while patients request them wrong-headedly.
- The information education campaign on the concept of antimicrobial resistance have yet to overcome **misconceptions in the lay public** as identified by the excellent Wellcome trust study⁸.

People believe that the term 'resistance' applies not to bacteria but to the antibiotic or to the individual patient and many believe that if they don't take antibiotics or have proper diet, their body cannot become 'resistant' (sic) and therefore AMR is of no concern to them.

What strategy might spur governments to act, what initiatives could beef up a financially stranded WHO AMR group? The WAAAR developed a step wise three pronged approach to generate massive awareness and response.

Action proposed

The WAAAR has focused its action on intense lobbying and creation of a large network to provoke awareness among all stakeholders and apply pressure on authorities, at home and abroad, to engage in appropriate action to limit the surge and spread of multi-drug resistant pathogens.

While its primary focus was on <u>antibiotic</u> resistance (as in the Expert STAG meetings at the WHO where it was decided that 'antimicrobial' meant 'antibiotics' for the discussion⁹), our initiatives also expanded to cover prevention of Ebola (as with the G7 resolution) as well as protection from AMR in the context of AIDS.

The program proposed has been wide and comprehensive:

The WAAAR advocated the following:

- ➤ Request for UNESCO to include the "concept of antibiotic" in the list of the intangible cultural heritage
- > Cautious, controlled and surveyed approaches to the use of antibiotics:
- ➤ in hospitals, long term care facilities and primary care.
- in husbandry, agriculture and veterinary setting; Ban of the use of antibiotics in animals as growth promoters or for prophylaxis.
- ➤ Tracking of antimicrobial use and resistance at institution and country level (CDCs) with comparative statistics published at least every 12 months.
- ➤ Restricting certain key antibiotics to human therapeutic use (e.g, carbapenems), and limiting the use of critically important antibiotics in animals.
- Developing new and using available rapid and accurate diagnostic tests to rapidly select. appropriate, targeted antibiotics, and limit the length of therapy.
- ▶ Developing a user fee for antibiotic prescription in veterinary practice 10 .

- > Informational and educational efforts for change.
- ► Large information and awareness campaigns directed to the public on the proper use of antibiotics.
- ► Education and training programs for health care professionals (schools and continuous medical education) on the proper use of antibiotics, including indications, dosing and duration of therapy.

> Prevention

- ➤ Relentless efforts to prevent cross-transmission of MDR organisms (MDROs), in particular via hand hygiene, standard precautions, and isolation procedures.
- ➤ Progressive elimination of the "over the counter" sales of antibiotics.
- ➤ Control of sanitary conditions around the world, in particular related to water safety and used water management.
- ➤ *Use of available vaccines and development of new anti-bacterial vaccines.*
- > Basic and applied research, and drug development
- ➤ Increased support to basic and applied research efforts in human and veterinary medicine.
- ➤ Incentives to stimulate research of new drugs via fast track developments of new antibiotics.
- ➤ New economic business models to support the cost of innovation while safeguarding public health interests.
- ➤ Development of non-antibiotic compounds directed at specific bacterial physiological targets.



1. The Paris Declaration

The main initiative has been three-pronged:

From the beginning of 2012 to 2014, the WAAAR Alliance focused its work on creating a ground swell among health professionals and patients group to develop awareness and motivate authorities to act, through the consensus building of **the Paris Declaration**

Lobbying will include multiple meetings with health departments leaders in France, advocacy will bring patients group on board to raise maximum publicity on "Le Bon Usage", (The Proper Use) meaning antibiotics must be preserved and treated with extreme care. Over 40 articles in scientific publications and lay press, in France and internationally, dozens of oral and poster presentations in international scientific congresses, or civil society world event yearly (such as MSF¹¹ and Davos¹²) and the organizing of seminars for decision makers in UN and other high level fora.



The PARIS declaration

Jean Carlet MD for the members of the World Alliance Against Antibiotic Resistance (WAAAR) March 2014

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The growing numbers of antibiotic resistant bacteria pose a major ecological threat. This alarming increase in bacterial resistance, combined with an almost complete absence of new antimicrobial drugs, has become one of the main public health problems of our time.

Antibiotics are a unique class of medications, as misuse in one patient may affect efficacy for many others. Antibiotics target bacteria, living organisms that can rapidly evolve and acquire mechanisms that enable them to become resistant rapidly. Emerging resistant bacteria can easily be transmitted to different individuals. Treatment failures because of multidrug resistant (MDR) bacteria, once limited to hospitals, now occur in the community. It is estimated that at a minimum 25000 patients in Europe, and 23000 in the USA die each year from infections caused by resistant bacteria.

Antibiotic resistance is directly related to the volume of antibiotics used. We are using increasing amounts of antibiotics in health care and agriculture, and discharging these active drugs into nature. The environmental impact of antibiotic release is enormous, promoting the development and dissemination of antimicrobial resistance genes.

We must change this and adopt proactive strategies, much like those used to save endangered species. To preserve the efficacy of antibiotics and to stabilize antibiotic susceptible bacterial ecosystems should be a global goal.

Safeguarding antibiotics will require a concerted effort by patients and prescribers. The primary goal of WAAAR is to raise awareness about the urgency and magnitude of the threat, and to catalyze an international dialogue to find effective responses. The Alliance is dedicated to lobbying actively for antibiotic preservation and to raising awareness among antibiotic prescribers, politicians and policy-makers, patient safety and advocacy groups, pharmaceutical industry, international health organizations, and general population. Individual actions, no matter how well intended, are doomed to failure unless we can create an international dialogue, a common sense of purpose and broad consensus on how best to proceed.

Basically, the creative part of the Paris Declaration undertaking was that human beings are much more amenable to change if they have been involved than if merely told 'what to do'. By working through the difficult undertaking of elaborating a consensus among doctors, researchers, patients representatives hospital managers, throughout the EU, and with notable participation from other parts of the world (the United States Centers for Disease Control and Prevention, CDC, signed on the Paris Declaration, for example), the WAAAR Alliance weaved a large and wide movement of well formed opinion, with members and signatories not only agreeing on the objectives, but agreeing on the "how to", the actions agenda to obrain results.



Dr Jean Carlet,

President and Founder of the WAAAR Alliance, 69 year old, trained in internal medicine, was head of the ICU in Hospital St Joseph in Paris for 25 years, had been nominated by France's minister of health as the president of a special task force for antibiotic preservation, in 2015.

2. AMR CONTROL Publication

In the fall of 2014, the WAAAR Alliance added the task of mobilizing the non-health sector. Its work focused on capturing the attention of decision makers, investors, development banks, ministry of finance, decision makers in the agricultural sector— and not just health ministers— on the need for action. At that time, the UN based WAAAR offices were approached with a proposal by a United Kingdom publishing house to put together a publication for decision makers on AMR control. What was the underlying methodology to put together the successful AMR

Control 2015?

The WAAAR Alliance editors drew on its global network to put together the highest possible expert quality articles to present to decision makers, in one swoop, a sharp, succinct, yet comprehensive overview, with contributions from the United Kingdom (Dame Sally Davies), the WHO at Assistant Director General level.

the Norwegian Institute for Public Health, or China's main laboratory, India's tuberculosis program, and so forth. When we told WHO AMR Coordination that we would be putting together a 2016 new edition of AMR Control, they were in disbelief. AMR Control 2015 was a reference book for any medical library and decision maker, how could we possibly envision a new publication?

With no large institutional support, the WAAAR Alliance was bringing together a major tool for investors, for bankers, for all decision makers, to act decisively on AMR.



WAAAR Deputy General Secretary Garance Upham presents AMR Control 2015 to the Minister of Health of Bangladesh at the International Conference on AIDS in Asia-Pacific, March 12, Dhaka, Bangladesh, where she organized a seminar with USAID on AMR in HIV care, sponsored by the inter-governmental South-South organization PPD (Partners in Population and Development)

Engage with patients, and insist on Infection Prevention and Control (IPC)

Among the distinctive features of the WAAAR, has been the engagement to work with patients, their organizations and expertise, in every area, with a great effort to promote IPC nationally and internationally.

In a close alliance with a major patients organization Le LIEN¹³, and Patients for Patient Safety of the WHO, the WAAAR has been organizing national scientific (and parliamentary) events on the issue of IPC, as well as collaborating to focus on AMR in events such as ICPIC¹⁴ or ICAN, whose leaders are members of the WAAAR.

Internationally with civil society initiatives (with the inter-governmental organization, Partners in Population and Development and USAID in ICAAP12- International Conference on AIDS in Asia Pacific, Dhaka, Bangladesh, seminar on **AMR and IPC for HIV care**), and in the United Nations themselves: WHA 2015 with the WHO, the United States, Sierra Leone, and South African governments "From Ebola to AMR: the crucial importance of IPC"

The **AMR Control 2016** book includes an entire dossier on **infection control** (with WHO and world experts) reviewing hand hygiene, WHO's launch of the Safe Injection Campaign, hospital cleaning and disinfection, along with USAID's expert advice on AMR transmission and risks in HIV care, and the Global TB Program, all of which fits with the 2015 **G7 Health Ministers' meeting in Berlin**¹⁵ calling for action to prevent health systems from being "amplifiers" of AMR, transmitting antibiotic resistant bacterial infection from one patient to health care givers, from one patient to other patients.

With no financial support other than the small dues of members (unlike other groups in the EU who receive heavy support from the local authorities or universities, such as the remarkable UK based **Review on AMR**), but a committed small team around the President, the WAAAR alliance will work wonders in a very short period of its existence, between its creation at the end of 2011, until today.

3. AMR-TIMES e-Newsletter

- In 2016, the WAAAR initiated an international monthly E-newsletter **AMR TIMES**, in English, French, then, starting at the WHA 2016 in Arabic, and soon in other EU languages as well, notably Spanish and Portuguese, with a view to enlarge awareness of AMR by providing news briefs on the issue. With more support, it is envisioned that within the next couple of months, the AMR TIMES Newsletter would become an E-journal. AMR TIMES aims to bring to its readers the latest news, articles, reports regarding Antimicrobial resistance (AMR), as well as exclusive interviews with key players in AMR related policies. Through AMR TIMES, we aim to advocate for best practices and strategies to fight AMR, by spreading the available, and/or exclusive information to our subscribers keeping them with the progress of the fight on AMR. The majority of AMR TIMES subscribers are Ministry of health officials from different countries, EU members, researchers, professors, as well as members of NGOs fighting AMR. In just 4 months, the number of subscribers of AMR TIMES, has increased from 755 to 1594, with more subscribers every day.

Meanwhile major scientific societies have distributed AMR-TIMES to thousands of their members, such as the BSAC (British Society for Antimicrobial Chemotherapy¹⁶), the SPILF French Infectious Diseases Society (**SPILF**), to name a few.

The Themes covered by AMR Times mirror those Theme groups established by the AMR Secretariat at the WHO:

- Government engagements and national action plans
- Communication and advocacy
- Infection control and healthcare outbreaks
- R&D, innovation and Clinical trials
- Surveillance and Monitoring
- Stewardship, rational drug use and pharmaceutical policies
- Diagnostic tools, equipment and laboratory tests
- Environment, Food, Water and Waste management
- One health
- Vaccines and means of deployment
- Economics and regulatory mechanisms
- e-Health, ambulatory technologies and care
- Global Security and AMR
- IHR and national health systems

This initiative on the part of the WAAAR provides European added value in the form of "PROMO-TION OF BEST PRACTICE in all participating Member States in order for EU citizens to benefit from the state of the art best practices", it also involves "Networking" as an important tool disseminating best practices to Member States. Finally it takes into consideration the "social, cultural and political context" by publishing in non-English languages in the EU, by a wide distribution of key information to all stakeholders: public, animal and human health professionals and non-health decision makers.

Final remarks on the plan of action

The three steps initiative "targeting the general public, patients, healthcare workers or international organizations – as well as decision makers at the highest level involves:

- 1.Advocacy
- 2.Awareness-raising
- 3.Education/training

It is in agreement with the 2011 EU plan "Development of education and training for healthcare workers on all aspects of AMR^{17} ".

RESULTS W_ZOUTCOME

- Effectively, within the span of 4 and a half years, and with no institutional financial support, WAAAR has been able to:
- ➤ Draft and launch The Paris Declaration, which mobilized gathered about a thousand health professionals, patients activists and experts from the world over. A major manifesto on AMR, The Paris Declaration was signed and reproduced by many scientific societies, with several hundred international press hits.
- ➤ Motivate the French authorities to act on stewardship and pass a decree mandating 'referent doctors' on antibiotic prescriptions in all hospital structures in 2013¹⁸. Achieve the major outcome of getting the French MoH to commit itself to take a major new step in the fight against AMR with the creation of a National Task Force for the Preservation of Antibiotics in 2015, which was chaired and put together by WAAAR President Dr. Jean Carlet, and included experts members of the WAAAR leadership. The report was considered a reference by the WHO Coordination on AMR and may be used by the other EU Member States as a model. It covers all aspects of AMR: One Health, Stewardship, Infection Prevention and Control, Economic impact, Patient Safety, and the need for Innovation¹⁹.

- An English version of the French National Task Force report is being eyed by European states who are less advanced in drafting national AMR plans, while now an inspiration throughout French-speaking Africa. Following the World Health Assembly vote on the Global Plan of Action on AMR, the WHO asked to use it as a model
- ➤ Demonstrate the need and feasibility of IPC training in collaboration with patients organizations, as well as organize IPC high-level events in United Nations and other inter-governmental fora.
- ➤ Succeed in putting together one of the best reference book on AMR Control with expert opinion from throughout the EU and beyond, and thus contribute to the capacity of Member States to follow through on the AMR Global Plan of Action.
- ➤ Launch a multi-language news service, a monthly newsletter, AMR TIMES to inform all stakeholders on AMR in French, English, and less frequently in Arabic. Versions in Spanish and Portuguese soon to come, with a small but growing team of volunteers and student interns (notably three Ph.D. candidates on AMR) from different countries and with different languages and other capacities.

On the AMR challenge today, the WAAAR brings together 730 persons from very different fields and experience, consumers in particular, of 55 different countries and all continents, and its action is endorsed by 145 scientific societies or professional groups, (from the EU and the USA especially).

In summary, the initiatives demonstrate:

Transferability

The initiative demonstrates that civil society can take the initiative, not only provoking government into more action, but be extremely important and supportive of government action, helping to train laymen, from the professional health care worker or patient advocacy group and general public media to the highest level in decision making, notably financial

Sustainability

The entire three-pronged initiative on Advocacy, Lobbying, and Education, was conducted by an NGO relying on dues-paying memberships, without State or other grants. The only other support came from the London publishing house, Global Health Dynamics, which proposed to WAAAR to put together experts contributions in a publication which they would layout, print and publish, called: "AMR Control".

The success of AMR Control 2015²⁰, with introduction and overview from Dame Sally Davies of the United Kingdom and Dr. Jean Carlet, prompted the demand for a 2016 edition.

Many countries experts will again contribute to AMR Control 2016 as was the case in 2015 (Belgium, China, France, Greece, India, The Ivory Coast, Kenya, The Netherlands, Pakistan, South Africa, Switzerland, the United Kingdom, The United States) from the European Medicines Agency, the USAID, the US CDC, and the World Health Organization.

The volunteer team of WAAAR members did disseminate the publications in the course of expert meetings, in many countries including at the United Nations World Health Assembly and at the EB meetings in the WHO.

It has contributed to public awareness and obtained an enthusiastic response. This lead to the launch of the third prong, in March of 2016, with the beginning of the AMR Times E_newsletter, in two EU languages (French and English), with every two months an Arabic edition with our Cairo office, and soon in 2 more languages. AMR Times info on line will expend into a multi EU languages AMR E-Journal, under construction presently.

Innovation and creativity:

The path chosen to proceed was quite unique, in several aspects: mobilization to achieve consensus on The Paris Declaration, the EU wide and beyond media blitz, with 600 reports and media coverage generated.

The first ever concept of a book for highest level decision makers AMR Control, with a view towards bringing together expert opinions on stewardship, surveillance, national plans, environmental protection, food safety, intellectual property rights issues and debates, infection control, handling of AMR in HIV/AIDS programs, as well as different non-antibiotic path for AMR control, all brought together in a 150 pages publications, first in 2015, and now for 2016 (pre-edition was present in the 69th WHA in May 2016), final edition in time for the G20.

In preparation: the launch of an internet based publication which, planned for launch in September, will include coverage of initiatives and scientific studies in several EU languages (the first of its kind) to cover all the themes put forth in the newsletter and overlapping with the WHO AMR Coordination Work Themes.

In Conclusion

New Initiatives and way forward:

With NGO partners such as Safe Observer International, the WAAAR Alliance volunteers are preparing the launch of an E-Journal to further information on good practices, foster access to adequate information, and help the exchange of information within the EU (by a multi-language approach), as well as increase EU's information reach to other non-EU countries, and WHO regions. This will be a natural extension and improvement on the AMR TIMES newsletter.

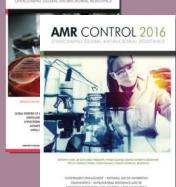
The E-Journal will allow more networking among CSOs, and support in countries activities on training and advocacy, it will allow for increasing feedback and participation from patients groups, professional societies, healthcare workforce and decision makers. Were the WAAAR to be selected for the EU Prize, the grant would go towards the E-Journal to service a larger community in the European Union.

The WAAAR has a significant presence in low and middle-income countries and is solicited to assist LMIC in elaborating better mobilizations and action plans against AMR. A number of seminars are in the planning phase.

A national public training on AMR is planned by the WAAAR during the November antibiotic awareness week in France. WAAAR Alliance is the coordinator of a network with 7 other CSO, and including the Pasteur Institute, which has put together a dossier with the French authorities to make antibiotic resistance a "cause nationale", the issue for the yearly national mobilization, in 2017.

SUMMARY REPORT

AMR CONTROL 2015



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