



Considerations for the Effective Implementation of National Action Plans on Antimicrobial Resistance

By Mirza Alas* and Viviana Muñoz Tellez**

National action plans (NAPs) on antimicrobial resistance (AMR) are important tools to set out the national strategic priority areas for action, as well as to understand the challenges that need to be tackled in the specific context to overcome the problem. The process for developing the NAPs is as important as the resulting plan of action, as it requires consultation and agreement among multiple government agencies and wide range of constituents that must be involved in the AMR response in human and animal health, as well as in the environment and the food chain.

Developing countries are establishing and implementing NAPs on AMR, yet they face many difficulties in doing so effectively.¹ There is a lack of awareness, expertise, funds, technical equipment, personnel and political will to take the range of actions required to effectively combat AMR. These are serious obstacles to the implementation of AMR action plans. Developing countries also face a number of challenges within the health sector but also across other areas (e.g. climate change, unemployment and poverty) that com-

pete with AMR for resources. AMR is a complex issue and therefore it is challenging to advocate for action by showing its direct impact. Additionally, AMR tends to be less visible than other specific health issues such as disease outbreaks and epidemics. In the competition for limited funds and personnel, it is difficult for AMR to obtain the resources and attention it deserves.

In order for developing countries to give higher priority to AMR they will need more support to increase their capacity to develop and implement inter-sectoral national action plans to combat AMR.

These are some of the messages that the South Centre has transmitted to the United Nations Inter-Agency Coordination Group (IACG) on antimicrobial resistance (AMR) in the context of its public consultation on NAPs towards shaping its recommendations that will be submitted to the United Nations Secretary-General in the second half of 2019.² These are based on experiences shared by policy makers and other stakeholders, in particular in the East Asian region.

Abstract

Effective design and implementation of national action plans (NAPs) is critical for the response to the growing challenge of antimicrobial resistance (AMR). This policy brief describes the messages that the South Centre has transmitted to the United Nations Inter-Agency Coordination Group (IACG) on AMR in the context of its public consultation, towards shaping its recommendations that will be submitted to the United Nations Secretary-General in the second half of 2019.

Il est capital de concevoir et de mettre en œuvre des plans d'action nationaux efficaces pour s'attaquer à la résistance aux antimicrobiens (RAM) qui prend de plus en plus d'ampleur. Le présent rapport présente les observations que le Centre Sud a transmis au groupe de coordination inter-institutions sur la résistance aux antimicrobiens (IACG) dans le cadre des consultations publiques qu'il a menées avant de faire ses recommandations au Secrétaire général de l'Organisation des Nations Unies au deuxième semestre 2019.

Concebir e implementar planes de acción nacionales eficaces es esencial para hacer frente a la creciente amenaza de la resistencia a los antimicrobianos. En este Informe sobre políticas se presentan las observaciones que el Centro del Sur transmitió al Grupo de coordinación interinstitucional de las Naciones Unidas sobre la resistencia a los antimicrobianos (IAGC) en el marco de la consulta pública que el Grupo ha efectuado a fin de formular las recomendaciones que presentará al Secretario General de las Naciones Unidas en el segundo semestre de 2019.

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I. AMR should be incorporated into broader global agendas

The integration of the AMR problem into broader global, regional and local policy agendas across the human, animal and environmental sectors is essential for a comprehensive response. AMR would need to be integrated into existing health programmes, including child and maternal health, TB and HIV programmes, as well as agendas on sustainable agriculture and environment.

In order to encourage the monitoring of progress on AMR targets, they should be included in the reporting on national progress towards achievement of Sustainable Development goals, including Goal 2: zero hunger, Goal 3: Good Health and Well-Being, Goal 6: Clean Water and Sanitation. This would encourage continued political attention to AMR at the national level.

Moreover, the achievement of Universal Health Coverage (UHC) and its sustainability would be under threat if AMR is not adequately addressed as part of a broader health systems issue. Countries should be encouraged to strengthen their primary care as part of a broader development agenda and integrate measures to combat AMR. In this regard the World Health Organization (WHO) is correctly positioning AMR as part of UHC.

II. Member States need support to build AMR activities into national strategies

Member states will need support in a number of key areas particularly technical and financial support for implementation. Furthermore, countries will need support to expand nationally to all areas (including remote and rural areas), infection prevention and control (IPC), water, sanitation, and hygiene (WASH) as key interventions on AMR. A recent study in the *Lancet* has found that improvements in sanitation, IPC, access to clean water, governance and public expenditure on healthcare are critically important in tackling AMR particularly in developing countries.³ Additionally, in order to understand the threat of AMR in the local context, building surveillance capacity will be urgently needed.

Countries will also need support to formulate and implement a comprehensive national policy for rational and appropriate use of antimicrobials. These policies would include regulations on marketing practices by companies in the human and animal health sectors which would support appropriate use and address perverse incentives to sales personnel, to medical and veterinary personnel that are linked to high volume of antibiotic sales.

The WHO guidelines on antibiotic use in animals⁴ are an important and useful reference that countries can implement from the human health perspective. This should be supplemented by the guidelines jointly issued by the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO) and the World Organization for Animal Health (OIE). Developing countries will also need support in implementing measures to reduce the routine use of antibiotics in animal production and transition into more sustainable production systems.

An international fund, or a number of funds, should be established to assist developing countries to meet the costs of addressing AMR, without overly straining their public health budgets since this could skew their priorities and reduce their ability to tackle other critical public health challenges.⁵

III. National AMR responses must be coordinated across sectors

Coordination among the different government sectors at the country level is one of the main challenges that developing countries face in implementing NAPs. Therefore, supporting countries to set up national inter-ministerial committees that involve the agriculture and health sectors for implementation of NAPs could help break the silos. Integrating the environmental ministry at the national level would also help to make sure that this aspect is also addressed. This committee may be hosted at the Ministry of Health to ensure that there is a clear lead. Inter-sectoral expert working groups can also be established to carry out coordinated work. Part of the support to establish these national committees and working groups could be delivered through technical assistance provided by the tripartite (WHO-FAO-OIE) at regional/national levels. At the same time, commitment is needed to make the committees functional. International recognition of efforts and good examples of countries that have established functional inter-sectoral coordination and collaboration on AMR could serve as a positive incentive to help maintain momentum. The recent joint publication by the tripartite offers useful reflections on this topic drawn from country lessons on how to establish and sustain the multisectoral collaboration needed to develop and implement NAPs.⁶

In the paper WHO identifies lessons learned from country experiences including the need for high political commitment and leadership as critical drivers of the AMR agenda as well as the need to mobilize resources to achieve action. The report clearly states that “progress will not happen without someone in government at the right level, with the right decision-making authority, to drive action on AMR.”⁷ and it also points out that “there is no one-size-fits-all approach to AMR governance: countries must establish structures and

mechanisms to suit their own situations.”⁸ These findings clearly resonate with concerns that have been expressed by developing countries and that would need to be addressed in order to ensure appropriate action in combating AMR.

IV. Step up global support for national AMR programmes

Part of the support for full integration of an AMR agenda should include technology transfer and the provision of technical equipment including diagnostics and know how to developing countries on grant or concessional terms. Also, there is a need to ensure that there will be strong international cooperation for building capacity of developing countries to address AMR.

At the global level, support can be provided in different ways, for example through guidelines and regulations for medical personnel, hospitals and clinics on the appropriate use of antibiotics, and on relations with industry sales representatives. Countries will also benefit by having access to therapeutic guidelines that could help provide guidance on treatment particularly for resource-poor settings with limited access to appropriate laboratory and diagnostics tools.

Continual sharing of information between countries will add to encouragement and partnership in sharing the responsibility for the control of AMR and the implementation of antimicrobial stewardship.

In terms of support for surveillance, in contexts where no data is currently kept, priority must be directed at supporting the maintenance of records at all levels; patient records including all necessary patient diagnosis and treatment details; laboratory records of all necessary details of tests and results. Without these data, surveillance is not possible and stewardship is also not possible.

The international community should provide technical and financial support to developing countries for capacity building and financing of the comprehensive range of activities to address AMR at national levels, including prevention of infections, appropriate use of antibiotics, improvement of practices in hospitals and clinics, new regulations on marketing, prescription and dispensing of medicines and their enforcement, interventions to control antibiotic use in agriculture and animal health, improvement of practices in hospitals and clinics, educating the public, community workers and health professionals, etc.

V. Integrating AMR into national government plans and budgets

The development of a technical tool and a global road map for mobilizing funding for implementation of NAPs that would allow countries to assess their own resource capacities against existing plans and budgets and to access the additional funding that they need. Development partners need to be aware of the specificities of each setting and be flexible in their approach to support NAPs that should count with domestic ownership in the design and implementation as well as targets and monitoring mechanism to ensure success.

Countries should be supported to establish, as part of the implementation of NAPs, an inter-Ministerial committee that ensures a ‘One Health’ approach. Each country depending on the context will identify the priorities for interventions. At the same time, there is need for global guidance on interventions, and the FAO-WHO-OIE collaboration is critical to lead the way on how to ensure that interventions are complementary across the sectors (which for example is not evident to date in the animal health sector). There is also need to have a space for coordination among various agencies providing support or operating at country level which can be supported by regional focal point offices that are of tripartite nature and also involve UNEP.

VI. Identifying priority areas for training, experience sharing and regional cooperation for AMR implementation

Training priorities should be identified as part of a national process for definition of NAPs, based on assessment that is context-specific. The mechanism for transmitting the needs assessment should be through the tripartite and UNEP, either through national or regional focal points. This information could also be made more widely available for other donors, development agencies, civil society organizations and other stakeholders to enhance resources and improve coordination. More resources should be made available to provide training to developing countries in particular least developed countries.

Training platforms can be developed at global, cross-regional, regional, national and community levels. These platforms would need to be sustainably funded and staffed; (may be part of a regional organization or regional representative office of the tripartite), and would identify relevant stakeholders; describe the type of intervention, and indicate the lessons learned as well as the best practices established in a particular context.

Stakeholders at country levels are seeking examples of what works in similar contexts, high-impact, cost-effective, rather than an overall approach that may be impractical in some settings. Digital tools can support information sharing and success stories shared. Civil

society are key stakeholders in this process of dissemination of practices. The tripartite plus UNEP should play a lead role in developing a global platform for this purpose.

It will be important that there is regional ownership, inclusion and identification of national champions that act as focal points for interaction with regional and global platforms. National ownership of NAPs is critical for making regional platforms a supportive tool for their implementation.

VII. Learning from the experience of the South-East Asian region

Sharing of experience among developing countries on efforts to tackle AMR and to implement NAPs should be a priority.

During a South-East Asian regional meeting organized by the South Centre,⁹ a number of important lessons were drawn from the exchange among the policy makers, civil society representatives and academics participating.¹⁰ Some of the key issues raised are summarized below:¹¹

- There has been a lot of progress in making a start in combatting AMR, with countries already formulating their national action plans and having a national AMR committee. However, while some countries have incorporated both the health and agriculture/animal sectors in their AMR committees, others only have the health ministry.
- While the health ministries have embarked on a number of activities such as surveillance and infection control, the agriculture/livestock sector in many countries still need to catch up with regards to actions.
- One encouraging sign is that Indonesia has banned the use of antibiotics as growth promoters in livestock since January 2018, whereas Vietnam imposed a similar ban a few years ago, and in Thailand there has been a ban on antibiotic use as growth promoters in chickens since 2006.
- In most countries, little work has been done on the environmental component of AMR. This is an area requiring much more work.
- While plans and guidelines have been formulated in a number of areas, implementation in most countries is still inadequate. This is because of various factors, depending on the country concerned. The factors include lack of priority and lack of political interest or will; lack of financial and human resources; limited supply of equipment needed for diagnos-

tic work; lack of champions and of a systematic stewardship programme at national or local levels.

- There is still inadequate understanding of the AMR issue in the animal sector in many countries. The WHO guidelines on antibiotic use in animals is a useful and important reference as it includes a human health perspective. This should be supplemented by guidelines jointly issued by WHO, FAO and OIE, so as to involve all the relevant international organisations.
- To increase the speed of implementation and of progress, a fund or funds to help developing countries to coordinate their AMR actions and to build their technical and organisational capacity should be made available with sufficient resources.

Conclusion

Developing countries are increasing their efforts to address AMR. Yet there are serious obstacles to the effective implementation of AMR action plans. These include a lack of awareness, expertise, funds, technical equipment, personnel and political will to take the range of actions required to effectively combat AMR. In the competition for attention to other public health priorities, limited funds and personnel, it is difficult for AMR to obtain in developing countries the coordinated action, resources and attention it deserves.

In order for developing countries to give higher priority to AMR they will need to receive more support to increase their capacity to develop and implement intersectoral national action plans to combat AMR.

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Endnotes

¹ By May 2017, 93 countries reported that they had a plan, and a further 51 have plans under development. WHO, FAO and OIE, *Monitoring global progress on addressing antimicrobial resistance: analysis report of the second round of results of AMR country self-assessment survey 2018*, 2018. See <http://apps.who.int/iris/bitstream/handle/10665/273128/9789241514422-eng.pdf?ua=1>.

² The full submission by the South Centre is available as part of the compilation of comments received by the IACG Secretariat on the discussion papers informing the report of the UN Interagency Coordination Group on AMR to the UN Secretary-General, South Centre submission in pages 178-182, http://www.who.int/antimicrobial-resistance/interagency-coordination-group/Comments_on_IACG_discussion_papers_1st_set_270718.pdf?ua=1.

³ Peter Collignon and others, 'Anthropological and Socio-economic Factors Contributing to Global Antimicrobial Resistance: A Univariate and Multivariable Analysis', *The Lancet Planetary Health*, 2.9 (2018), e398-405 <[http://dx.doi.org/10.1016/S2542-5196\(18\)30186-4](http://dx.doi.org/10.1016/S2542-5196(18)30186-4)>.

⁴ The guidelines are available from http://www.who.int/foodsafety/areas_work/antimicrobial-resistance/cia_guidelines/en/.

⁵ Martin Khor, 'The Global Threat of Antimicrobial Resistance and the Challenges and Needs of Developing Countries', in *When Medicines Don't Work Anymore* (Penang, Malaysia, 2018).

⁶ World Health Organization, *Tackling Antimicrobial Resistance (AMR) Together Working Paper 1.0: Multisectoral Coordination* (Geneva, 2018). Available from <http://www.who.int/antimicrobial-resistance/publications/workingpaper1multisectoralcoordinationAMR/en/>.

⁷ Ibid.

⁸ Ibid.

⁹ The South-East Asian regional meeting was organized by the South Centre together with the Third World Network, in Penang, Malaysia in early 2018, with the support of the Ministry of Health of the United Kingdom through the Fleming Fund. The three-day meeting brought together policy makers from health and agriculture ministries and institutions, national and global AMR experts, and civil society organisations from Indonesia, Thailand, Malaysia, the Philippines, Myanmar, Vietnam, Cambodia, Laos, China and India, and Australia.

¹⁰ Further information of the meeting is available at the WHO SEARO website, at http://www.searo.who.int/entity/antimicrobial_resistance/documents/regional-workshop-on-antimicrobial-resistance-march-2018/en/, including the meeting report and selected presentations.

¹¹ Report on Asian Regional Workshop on Antimicrobial Resistance, co-organised by the South Centre and Third World Network, 26-28 March 2018, Penang, Malaysia, available from http://www.searo.who.int/entity/antimicrobial_resistance/amr-asian-workshop-report-2018.pdf?ua=1.

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