A report of the National Antimicrobial Resistance Forum
Tuesday, 17 November 2015

Purpose

On 17 November 2015, approximately 170 representatives from across the human health, animal health and agriculture sectors, as well as government representatives and researchers, met in Canberra to discuss a cross-sectoral collaborative approach to implementation of the National AMR Strategy. The National AMR Forum (the Forum) was jointly convened by the Australian Government Department of Health and Department of Agriculture and Water Resources.

It should be noted that the summary of discussions at the Forum below, reflect the views of participants and do not necessarily represent the views of the government.

Background

The World Health Organization describes antimicrobial resistance (AMR) as one of the biggest threats to global health today and warns that without urgent action we are heading for a post-antibiotic era in which common infections and minor injuries can once again kill.

While AMR occurs naturally, globally the misuse of antibiotics in humans and animals is accelerating the process. AMR presents a serious challenge in all sectors where antimicrobials are used, including in human health, animal health, agriculture and agricultural trade, farming and aquaculture and food production.

In June 2015, the Australian Government released its First National Antimicrobial Resistance Strategy 2015-19 (the National AMR Strategy). The National AMR Strategy provides the framework for a coordinated, cross-sectoral response to AMR and identifies broad areas for action in relation to: antimicrobial stewardship; surveillance; infection prevention and control; communication and education; research and development; international partnerships; and governance.

The National AMR Strategy calls on stakeholders from across all sectors to support a collaborative effort to change those practices that have contributed to the development of AMR and implement new initiatives to reduce inappropriate antibiotic usage and resistance.
Presentations

The following presentations were provided on the day:

- **Professor Chris Del Mar**: addressing prospects for the reduction in antibiotic use in primary health care;
- **Dr Stephen Page**: focussing on key priorities and issues relating to AMR from the perspective of animal health practitioners and stakeholders; and
- **Dr Karin Thursky**: an overview of the work of the National Centre for Antimicrobial Stewardship.

The above presentations are available on request, please email amr@health.gov.au.

Working group discussions

Participants were provided with a copy of the ‘Overview of Antimicrobial Resistance related activities’ document in advance of the Forum to help guide discussion during the working group sessions (please email amr@health.gov.au if you would like a copy). Participants were seated at tables which had been allocated specific Objectives of the National AMR Strategy and were asked to discuss a number of questions in relation to the development of an implementation plan for the National AMR Strategy, including:

- **Which activities are core to an effective national response to AMR and will be able to demonstrate progress against the Objectives of the National AMR Strategy?**
  - Out of the many activities included in this document, which activities must be continued or further developed to effectively address antimicrobial resistance in Australia?
  - Are there any activities or resources that are being developed on a state/territory or sector level that could be shared across states or sectors?

- **What are the major gaps in our response to AMR in Australia?**
  - Is there anything your organisation could do to fill those gaps?
  - Are there any opportunities for your organisation to collaborate with other organisations to strengthen activities in the plan?
  - Of the state-based or smaller scale pilot projects, which ones do you consider could or should be up-scaled to strengthen our national response to AMR?

- **How do we determine what successful implementation of the National AMR Strategy is and what will the evidence of this be?**

Analysis of the collected papers from tables identified a large number of potential priorities for each of the seven Objectives of the National AMR Strategy. This information will be used to inform the development of the implementation plan and will assist in setting future priorities. Summarised below are the main recurring themes under each Objective where participants felt effort should be focussed.
Objective One: *Increase awareness and understanding of antimicrobial resistance, its implications and actions to combat it, through effective communication, education and training.*

- Develop a tailored, focused AMR education strategy including materials targeted to Indigenous Australians, Culturally and Linguistically Diverse groups, food producers and pet owners.
- Introduce undergraduate training on AMR, antibiotic use and antimicrobial stewardship for veterinary, nursing and medical students supported by mandatory continued professional development activities throughout the practitioner’s career.
- Agree on core components of curriculum and then look to accrediting or credentialing agencies to enable implementation.
- Obtain a better understanding of what influences consumer decision making across different groups and translate this into materials and resources for consumers and prescribers.
- Develop a coordinated, audience appropriate, healthcare system-wide and community-wide approach to education, communication and awareness programs on AMR, infection prevention and control and appropriate use of antibiotics.
- Develop a central One Health AMR repository (website) to host AMR information, reports and resources, including links to Australian and international initiatives.

Objective Two: *Implement effective antimicrobial stewardship practices across human health and animal care settings to ensure the appropriate and judicious prescribing, dispensing and administering of antimicrobials.*

- Develop an antimicrobial stewardship framework for livestock including modules for different sized farms and types of farms.
- Work out ways to incentivise good prescribing and antibiotic usage behaviours.
- Continuation of national standards for antimicrobial stewardship for hospitals with consideration given for other sectors.
- Improve the use of antibiotics in animal health, agriculture and aquaculture, including through the development of veterinary prescribing guidelines.
- Create consistency across states and territories by rolling out state developed best practice antimicrobial stewardship programs nationally.

Objective Three: *Develop nationally coordinated One Health surveillance of antimicrobial resistance and antimicrobial usage.*

- Establish a mandated, national (public and private) One Health surveillance system which is standardised and uses best practice principles.
- Increase surveillance of food, including imported food, for antimicrobial residues.
- Increase testing and surveillance of the environment, e.g. quinolones in water ways.
- Improve surveillance of antimicrobial prescribing and use in humans and animals.
• Standardise data to ensure they are comparable between labs and sectors and over time.

Objective Four: **Improve infection prevention and control measures across human health and animal care settings to help prevent infections and the spread of resistance.**

• Expand hand-hygiene programs to veterinarians, schools/childcare, aged care facilities, primary care, food production/processing/service.
• Develop a ‘National Cleaning Standard’ with audits and assessments to measure uptake and compliance for human health and agriculture.
• Maximise coverage of vaccines that address diseases linked to AMR (such as pneumococcal) or which contribute to antibiotic use (such as influenza).
• Establish an alert system for patients with multi-resistant organisms (MROs) that transfer between healthcare settings.
• Ensure readily available, current, and consistent infection prevention and control guidelines are available across all sectors.

Objective Five: **Agree a national research agenda and promote investment in the discovery and development of new products and approaches to prevent, detect and contain antimicrobial resistance.**

• Establish a collaborative One Health approach to research.
• Progress the development of national research priorities.
• Ensure rapid translation of new discoveries into action.
• Conduct further research into point-of-care diagnostics.
• Ensure national coordination and analysis of all research and research outcomes.
• Develop strategies for new therapies (including new antimicrobials, vaccines and alternatives to antibiotics) and new technologies.

Objective Six: **Strengthen international partnerships and collaboration on regional and global efforts to respond to antimicrobial resistance.**

• Obtain and share data about AMR globally and regionally and aim for consistency.
• Reflect AMR related issues in Free Trade Agreements.
• Increase global collaboration on AMR activities, including seeking country alliances.
• Map all the agency and NGO involvement in AMR in our region and governance across all levels.
• Expand the use of therapeutic guidelines into developing countries.
• Consider what we can learn from other countries.
Objective Seven: Establish and support clear governance arrangements at the local, jurisdictional, national and international levels to ensure leadership, engagement and accountability for actions to combat antimicrobial resistance.

- Review listings of antibiotics on the Pharmaceutical Benefits Scheme (PBS).
- Disallow private prescriptions for antibiotics in human health.
- Develop true One Health expertise.
- Ensure national consistency of regulations for agricultural and veterinary use of antimicrobials.

Measuring success of the National AMR Strategy

- Measure success of the National AMR Strategy by collecting baseline data for priority organisms, and measure reduction in usage of antibiotics, prevalence of resistant infections and number of prescriptions.
- Measure unintended consequences, such as a potential swing towards underuse of antibiotics resulting in morbidity and mortality.

Plenary Forum Session Outcomes

An opportunity for general comment and discussion was put to the floor during this Item. Conversation was broad, and some select examples of comments made are outlined below.

General comments and suggestions about Australia’s response to AMR:

- **AMR should be declared a National Health Priority Area (NHPA):** this would highlight the importance of the issue and assist in defining the work priorities across many areas, including research.
- **Need to clearly understand the AMR starting position** through effective surveillance and research. Before we can effectively address AMR in Australia we need to better understand the extent of AMR and antibiotic use across sectors.
- **Need to learn from what has been done internationally** and adapt effective interventions for the Australian context.
- **Need to recognise the federated nature of our governing structures** and determine how best to involve States and Territories and coordinate governance arrangements across government agencies during the implementation of the National AMR Strategy.
- **Need to establish a unifying and coordinating ‘supra-departmental’ body** that, as the lead agency, it would oversee the implementation of the National AMR Strategy over time and across jurisdictions and be accountable for progress and results produced.
- **Need to be careful about possible implications of cutting back regulation** (domestically and under free trade agreements) on AMR. Regulation and restriction are very important to improving antibiotic usage.
General comments and suggestions about the development of an implementation plan for the National Strategy:

- Need to ensure the implementation plan is **cohesive and focussed on identified priorities**.
- Successful implementation will rely on a **structured monitoring and evaluation framework**.
- **Animal health and agriculture initiatives, including livestock and wildlife, have been underrepresented** in the ‘Overview of Antimicrobial Resistance related activities’. This should be a consideration during the development of an implementation plan.
- **Cost benefit analysis, risk assessment and risk communication** should be used to decide what activities the government should fund under the National AMR Strategy.

General comments and suggestions about the activities that should be included in an implementation plan for the National AMR Strategy:

- **Identify and review the evidence on behaviours and behavioural context that drive AMR in Australia** and use this evidence to identify appropriate interventions to change behaviours.
- **Determine which messages will resonate with the public** and how these messages can be communicated with reference to other effective public health campaigns such as the campaigns to reduce HIV transmission.
- **Communicate what we want people to do (positive messages) rather than what not to do (negative messages)** and empower consumers with appropriate information and knowledge, given their role as ultimate decision-makers and users.
- **Making AMR an integral part of the general education experience** in primary and secondary schools, under the broader heading of human health, environment and ecology learning; in higher education institutions, at pre-clinical and clinical stages; and in professional associations, as part of ongoing professional development.
- **Include AMR as part of training of students** (in undergraduate and postgraduate) across all facets of human and animal health care.
- **Focus on the continuous education of prescribers**.
- **Need to offer alternatives to antibiotics to curb antibiotic use** for example, provide farmers with an effective alternative solution and they will use it.
- **Continuing the active development of new products and alternative methodologies** and, in parallel, educating professional stakeholders (human and animal health) in the availability, uses and benefits of alternatives to antibiotics.
- **Incentivising interested parties towards the desired, positive (i.e. more AMR-conscious) behaviours**. In the UK incentives resulted in a reduction in GP antibiotic prescribing by 50%.
- **Making antibiotics more expensive**, using pricing and the PBS as the vehicles for change, in a bid to restore the notion of value that should attach to antibiotics, in present-day circumstances where little value attaches to a (generally) low-cost, if not freely-available, drug; or by attending to aspects of the health system that affect the prescriber-driven use of antibiotics.

- **Tackling practices that, insidiously, install antibiotics as an indication of the relative seriousness of an ailment** – for instance in sick leave arrangements that require a doctors’ certificate that is subsequently seen to carry more weight if it carries with it a prescription for antibiotics.

- **Need to consider incentives for institutions and practices** that implement stewardship programmes as they can be expensive.

**Next Steps**

The Departments of Health and Agriculture and Water Resources will work with the Australian Strategic and Technical Advisory Group (ASTAG) on AMR to review the outcomes of the Forum and consider the scope and format of an implementation plan for the National AMR Strategy; agree priorities and gaps; and discuss targets and indicators for measuring progress. The draft will be reviewed by the ASTAG, stakeholders and the AMR Prevention and Containment Steering Committee before submission to the Minister for Health and Minister for Agriculture and Water Resources by June 2016.

**Conclusion**

The Departments of Health and Agriculture and Water Resources would like to take this opportunity to thank the individuals and organisations who participated in the National AMR Forum and for their dedication to this very important issue. The information and recommendations flowing from the discussions which took place at the National Forum will be used to inform the development of an implementation plan for the National AMR Strategy.

The Australian Government looks forward to working collaboratively across sectors to progress this important work to respond to the threat of AMR.