

**For information
on 17 July 2017**

Legislative Council Panel on Health Services

Hong Kong Strategy and Action Plan on Antimicrobial Resistance

PURPOSE

This paper briefs Members on the progress in tackling the threat of antimicrobial resistance (“AMR”) since the announcement of the 2016 Policy Address, in particular the launching of the “Hong Kong Strategy and Action Plan on AMR (2017-2022)” (“Action Plan”).

BACKGROUND

2. The AMR problem is one of the emerging health issues across the globe, including Hong Kong. The World Health Organization (“WHO”) and WHO Regional Office for Western Pacific respectively issued the “Global Action Plan on AMR” (“Global Action Plan”) and the “Action Agenda for AMR in Western Pacific Region” (“Action Agenda”) in 2015. Both the Global Action Plan and the Action Agenda emphasise the importance of adopting the “One Health” framework in formulating and implementing strategies to combat AMR.

Establishment of the High Level Steering Committee and Expert Committee on AMR

3. In recognition of the major threat posed by AMR to global public health, the Government announced in the 2016 Policy Address to set up a High Level Steering Committee on AMR (“HLSC”) to formulate strategies and action plans. Chaired by the Secretary for Food and Health, the HLSC comprises representatives from relevant Government departments, public and private hospitals, healthcare organisations, academia and relevant professional bodies. The terms of reference and the membership list of the HLSC are at **Annex A**.

4. The HLSC held its first meeting on 27 June 2016 at which it endorsed the setting up of an Expert Committee on AMR (“Expert Committee”),

chaired by Prof. YUEN Kwok Yung, to provide science-based advice to assist in the formulation of territory-wide action plan against AMR under the “One Health” framework. Since its establishment in October 2016, the Expert Committee has met two times and submitted its recommendations to combat AMR in Hong Kong to the HLSC.

5. The following strategic areas, which are in accordance with the objectives of WHO’s Global Action Plan, have been enumerated by the Expert Committee in its recommendations —

- Establish surveillance on AMR and antimicrobial use;
- Optimise antimicrobial use;
- Reduce incidence of infection;
- Improve awareness and understanding of AMR; and
- Increase investment in research and development.

ACTION PLAN

6. Taking into consideration the recommendations of the Expert Committee and having regard to the “One Health” framework which takes into account human, animal and environment health, the HLSC has formulated a holistic Action Plan which was endorsed in principle by Members at the 2nd meeting of the HLSC on 29 May 2017. The Action Plan was formally launched on 10 July 2017.

Goals and outline of actions

7. The Action Plan was developed around the following goals not only to provide guidance to public health and veterinary partners, but also to coordinate efforts from all sectors of the community. The six goals are as follows —

- Adopt the principles of WHO’s Global Action Plan as the main strategies to tackle AMR in Hong Kong;
- Develop territory-wide network across different sectors to strengthen surveillance on AMR and antimicrobial use;
- Promote appropriate therapeutic use of antimicrobials in humans and animals under the overseeing of health and veterinary professionals and discourage misuse and overuse;
- Encourage collaboration among different stakeholders, including

private sector, to enhance awareness of AMR;

- Promote research for innovations on medicines, diagnostics and related interventions and to understand drivers of resistance including operational research in local context; and
- Participate in global collaborative research activities.

8. To achieve the set goals, six key areas, with a total of 19 objectives, have been identified with an aim to slowing the emergence of AMR and preventing its spread. The actions are outlined at **Annex B** while the full version of Action Plan is accessible at the website of Centre for Health Protection (http://www.chp.gov.hk/files/pdf/amr_action_plan_eng.pdf).

WAY FORWARD

9. To take forward the Action Plan, the Government will continue to engage professionals, non-governmental organizations and other community stakeholders to seek their views and encourage participation. In order to engage all sectors of the community for their involvement and joint-up actions, the Action Plan will be publicised through various means, such as publications, media and briefings.

10. Mid-term and final reviews on the actions proposed in the Action Plan will be conducted within the five-year period by the HLSC. New actions will be added as needed and existing actions may be modified or removed depending on progress or changes to the development of AMR problem.

11. The HLSC and all participating bureaux, departments and organizations will continue to keep abreast of international and local development such that the Action Plan and its related work can be updated over time and adapted to suit local needs.

12. Members are invited to note the progress in tackling the AMR in Hong Kong and the launch of Action Plan.

Food and Health Bureau
July 2017

High Level Steering Committee on Antimicrobial Resistance

Terms of Reference

1. To provide governance and leadership on antimicrobial resistance (“AMR”);
2. To develop and coordinate comprehensive, multi-sectoral policies to combat AMR;
3. To monitor and oversee the development and implementation of a territory wide action plan for current and future work related to AMR; and
4. To monitor that actions are within a congruent “One Health” framework.

Membership

Chairman

Secretary for Food and Health

Non-official members

Ms CHAN So Kuen, Sabrina

Prof. HUI Shu Cheong, David

Prof. LEE Wing Yan, Vivian

Prof. YUEN Kwok Yung

Institutional members

Hong Kong Academy of Medicine

Hong Kong Dental Association

Hong Kong Medical Association

Hong Kong Private Hospitals Association

Hong Kong Veterinary Association

Hospital Authority

Consumer Council

Ex-officio members

Permanent Secretary for Food and Health (Food)

Permanent Secretary for Food and Health (Health)

Director of Health

Director of Agriculture, Fisheries and Conservation

Director of Food and Environmental Hygiene

Controller, Centre for Health Protection

Controller, Centre for Food Safety

Outline of Hong Kong Strategy and Action Plan on AMR

Key area 1: Strengthen knowledge through surveillance and research

Objective 1 – Set up AMR surveillance system under One Health for Hong Kong

Strategic interventions	Activities	Lead action party	Target(s) and Timeframe
1.1 Establish a coordination structure for One Health surveillance on AMR	1.1.1 Setup a ‘Working Group on AMR One Health Surveillance’ to coordinate and plan on collection and dissemination of AMR/ antimicrobial use data	- DH - AFCD - CFS	Commence by 2017
1.2 Strengthen AMR surveillance in healthcare settings	1.2.1 Harmonise AMR surveillance reporting criteria with reference to GLASS of WHO	- DH - HA	Set criteria by 2017
	1.2.2 Develop surveillance at laboratory level for in- and out-patient service providers	- DH - HA	Commence data collection from HA by 2018
1.3 Develop AMR surveillance programme in animals	1.3.1 Commission a consultancy study to devise a plan for the surveillance on AMR microorganisms in food animal production farms	- AFCD - DH	Commission by 2018
	1.3.2 Conduct surveillance studies on AMR in imported day-old chicks and breeding pigs	- AFCD	Commence by 2017
	1.3.3 Carry out surveillance on AMR in food animal production farms	- AFCD	Commence by 2019
1.4 Develop AMR surveillance programme on food	1.4.1 Conduct pilot survey to guide development of a surveillance system on food	- CFS - DH	Develop preliminary survey protocol by 2018
1.5 Set up a centralised platform for AMR surveillance data on human, animal, food and environment	1.5.1 Link data related to AMR surveillance and monitoring across different sectors	- DH - AFCD - CFS	Develop preliminary protocol by 2018

Objective 2 - Build laboratory capacity to support surveillance activities in both human and animal sectors

2.1 Strengthen laboratory support in AMR surveillance	2.1.1 Identify Public Health Laboratory under DH as a local reference laboratory on AMR to advise the Administration and to support local medical laboratories	- DH	On-going
2.2 Standardise laboratory antimicrobial susceptibility testing method for AMR surveillance	2.2.1 Promulgate adoption of international standards and guidelines for AST such as CLSI or EUCAST	- DH - HA	Commence by 2018
2.3 Support establishment of quality assurance programme and promote introduction in medical laboratories	2.3.1 Coordinate with laboratories to conduct quality assurance programme for continuous improvement of standards of laboratories in Hong Kong	- DH	Commence by 2018

Objective 3 - Monitor antimicrobial use in humans and animals

3.1 Establish a coordination structure for antimicrobial use surveillance	3.1.1 Setup a ‘Working Group on AMR One Health Surveillance’ to coordinate and plan on collection and dissemination of AMR/ antimicrobial use data	- DH - AFCD - CFS	Commence by 2017
	3.1.2 Collect supply data on antibiotics from different sectors using standardised reporting formats	- DH - AFCD	First report by 2017
3.2 Monitor antimicrobial use in humans	3.2.1 Collect antibiotic dispensary data from HA and monitor antibiotic use in public hospitals and clinics	- DH - HA	First report by 2018
	3.2.2 Explore feasibility of using electronic Health Record (eHR) to capture prescription data from private sector	- DH - FHB	Commence by 2017
3.3 Monitor antimicrobial use in animals	3.3.1 Commission a consultancy to devise a plan for monitoring antimicrobial usage in food animals production farms	- AFCD	Commission by 2017
	3.3.2 Strengthen surveillance on antimicrobial use in local food animal production farms through interim measures such as imposing record keeping requirement and surprise inspection	- AFCD	Commence by 2017
	3.3.3 Carry out systematic monitoring of antimicrobial use in food animal production farms	- AFCD	Commence by 2019

Key area 2: Optimise use of antimicrobials in humans and animals

Objective 4 – Strengthen regulation on over-the-counter purchase of prescription-only antimicrobials

Strategic interventions	Activities	Lead action party	Target(s) and Timeframe
4.1 Enhance inspection against authorised sellers of poisons	4.1.1 Conduct special inspection against authorised sellers purchasing large volumes of antimicrobials	- DH	On-going
4.2 Enhanced test purchase of antibiotics against authorised sellers of poisons	4.2.1 Enhance test purchase	- DH	On-going
4.3 Review disciplinary actions against offences related to antimicrobials	4.3.1 Advise PPBHK to consider reviewing the disciplinary action on offences related to antimicrobials	- DH	Commence by 2017
4.4 Solicit support from licensed drug retailers	4.4.1 Refer to Strategic Intervention 13.1	- DH	On-going
4.5 Keep in view the necessity to amend relevant ordinances	4.5.1 Review the effect of strengthened measures against authorised sellers of poisons and review the necessity to amend relevant ordinances	- DH	As and when necessary

Objective 5 - Implement and enhance training in prescribing antimicrobials through Antibiotic Stewardship Programme in human health sector

5.1 Ensure adequate resources for implementation and evaluation of ASP in healthcare settings	5.1.1 Assess resource implication for implementation of ASP	- DH - HA	On-going
5.2 Promote antibiotic prescription according to evidence-based guidelines for doctors and dentists	5.2.1 Continue to review and update the IMPACT guideline regularly for in-patient antibiotic stewardship and promulgate its use	- DH - HA	On-going
	5.2.2 Continue ASP in public hospitals	- DH - HA	On-going
	5.2.3 Advocate ASP in private hospitals	- DH - Private hospitals	On-going
	5.2.4 Formulate and promulgate evidence-based guidelines in primary care setting	- DH - HA - Professional bodies	Produce guideline by 2018

Objective 6 - Monitor compliance with antibiotic prescription guidelines of human health practitioners

6.1 Monitor compliance with antibiotic prescription guidelines of human health practitioners	6.1.1 Encourage evaluation and audit of ASP and establish feedback loop to reflect performance	- DH - HA	On-going
	6.1.2 Conduct surveys to gauge knowledge, understanding and prescription behaviour of human health practitioners	- DH	Commission in 2017 to 19

Objective 7 - Ensure proper use of antimicrobials in animals

7.1 Strengthen support to food animal production and veterinary sectors	7.1.1 Facilitate and support development of projects for the provision of veterinary services to food animal production farms by non-government veterinary sector	- AFCD	Commence by 2017
	7.1.2 Formulate tailor-made farm-specific disease management plans	- AFCD	Commence by 2018
	7.1.3 Assist farmers in sourcing vaccines and veterinary medications for disease prevention and management	- AFCD	Commence by 2018
	7.1.4 Arrange training activities for non-government veterinarians to build up their capacity for providing veterinary services to local food animal production farms	- AFCD	Commence by 2018
7.2 Promote proper antimicrobial use according to evidence and local epidemiology	7.2.1 Develop guidelines and code of practice on the proper use of antimicrobials and use of critically important antimicrobials in animal disease management in accordance with prevailing international guidelines	- AFCD	Commence by 2018
	7.2.2 Organise education and publicity programmes for food animal farmers and veterinarians on the proper use of antimicrobials	- AFCD	On-going
7.3 Enhance regulation of antimicrobial use in food animals	7.3.1 Implement 'veterinary prescription-only medication supply' policy and tightly regulate the use of critically important antimicrobials in animal husbandry	- AFCD	Commence by 2019
	7.3.2 Review relevant legislation on exemption of using antimicrobials in animal feeds	- AFCD - DH	Commence by 2017

Key area 3: Reduce incidence of infection through effective sanitation, hygiene and preventive measures

Objective 8 - Strengthen infection prevention and control measures in healthcare settings

Strategic interventions	Activities	Lead action party	Target(s) and Timeframe
8.1 Secure resources for implementing infection control programmes in hospitals	8.1.1 Assess resource implication for implementation of the infection control programmes	- DH - HA	On-going
8.2 Enhance infection control infrastructure in hospitals	8.2.1 Review ward design according to international guidelines and recommendations in planning new hospitals	- DH - HA	On-going
8.3 Promote hand hygiene in healthcare settings	8.3.1 Review and strengthen hand hygiene programmes to improve compliance by healthcare workers	- DH - HA	On-going

Objective 9 - Strengthen infection control training for healthcare workers

9.1 Strengthen infection control training among healthcare workers	9.1.1 Continue to provide infection control training with refresher information to new intakes of healthcare workers	- DH - HA	On-going
	9.1.2 Raise awareness and solicit healthcare workers' support to patient engagement programme on reminding healthcare workers to perform hand hygiene	- DH - HA	Engage healthcare workers by 2018 Pilot by 2019

Objective 10 - Develop and strengthen infection prevention and control programmes in veterinary settings and along food supply chain

10.1 Develop infection prevention and control policies and strategies	10.1.1 Devise tailor-made farm-specific disease management plan for the purpose of disease prevention, management of disease spread and minimise the usage of antibiotics	- AFCD	Commence by 2018
	10.1.2 Consider relocation and consolidation of livestock farms if necessary	- AFCD	As and when necessary
10.2 Identify risk and potential control points for AMR containment along food supply chain	10.2.1 Commission a consultancy to assess the significance of food animal production in contributing to AMR and formulate suitable measures to address the AMR issues associated with food animal production	- AFCD	Commence by 2020
	10.2.2 Review overseas studies to identify potential control points to contain AMR	- AFCD - CFS - FEHD	Commence by 2018
10.3 Strengthen infection control training and education for workers along food supply chain	10.3.1 Provide regular education seminars on biosecurity, disease control and prevention and farm management to farmers and their workers	- AFCD	On-going
	10.3.2 Include AMR in training courses under the Hygiene Manager and Supervisor Scheme	- FEHD	On-going

Objective 11 - Enhance vaccination uptake

11.1 Promote vaccinations contributing to prevention of antimicrobial resistant infections	11.1.1 Encourage uptake of seasonal influenza and pneumococcal vaccine	- DH - HA	On-going
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Key area 4: Improve awareness and understanding of antimicrobial resistance through effective communication, education and training

Objective 12 - Raise awareness of AMR among general public, students and target population

Strategic interventions	Activities	Lead action party	Target(s) and Timeframe
12.1 Develop and implement targeted evidence-based health promotion programme for specific audience including students and personnel working in healthcare, animal health, food animal production and food hygiene settings	12.1.1 Monitor Knowledge, attitude and practice (KAP) towards AMR and antimicrobial use among general public and target population by survey	- DH - AFCD - CFS	Commission in 2017 to 2019
	12.1.2 Develop and review key messages to raise public awareness and call for action based on KAP results	- DH - AFCD - CFS	On-going
	12.1.3 Support and participate in annual World Antibiotic Awareness campaign and Hand Hygiene Day	- DH	On-going
	12.1.4 Develop and disseminate information on AMR and related topics through existing health promotion channels, healthcare service providers and platforms commonly used by target populations including patients, food animal farmers, private veterinarians and food business operators	- DH - AFCD - CFS - FEHD	On-going
	12.1.5 Provide regular education and training to food animal farmers on antimicrobial use and measures on control of veterinary products	- AFCD	On-going
	12.1.6 Explore the merits and feasibility of labelling of pre-packed antibiotic-free food	- CFS	On-going
12.2 Include AMR and related topics to students	12.2.1 Review high school liberal studies curriculum in relation to AMR	- DH	Commence by 2017
	12.2.2 Develop education materials on AMR and related topics for primary students	- DH	Training of staff in 2017 to 2018, Pilot in 2018. Commence by 2019 with on-going evaluation

Objective 13 - Engage patients in adopting infection control measures and proper use of antibiotics

13.1 Strengthen health information provision	13.1.1 Develop and provide health education materials in hospital wards, clinics and pharmacies	- DH - HA	On-going
	13.1.2 Encourage provision of health information on personal hygiene measures on antibiotic drug prescription bags	- DH - HA	On-going
	13.1.3 Educate patients to use antibiotic appropriately	- DH - HA	Produce guideline for primary care by 2018. Health promotion commence by 2019
13.2 Provide supportive environment to facilitate hand hygiene practices by patients	13.2.1 Continue to provide accessible hand hygiene facilities and products in healthcare settings	- DH - HA	On-going

Objective 14 - Include AMR and related topics in school curricula and continuous training of human health and veterinary professionals

14.1 Include prescribing competencies and infection control practices as core component of professional education and continuous development	14.1.1 Include AMR and related topics in undergraduate curricula for human health and animal health professionals and encourage continuous professional development	- DH - AFCD - Academia	On-going
14.2 Strengthen infection control training for healthcare workers, veterinarians and workers along food supply chain	14.2.1 Refer to Objectives 9 and 10	- DH - HA - AFCD - CFS - FEHD	

Key area 5: Promote research on AMR

Objective 15 – Promote research on innovative technology and medical science

Strategic interventions	Lead action party	Target(s) and Timeframe
15.1 Promote development of novel diagnostics tools to aid diagnosis and treatment of infections and AMR	- DH - Academia	Promote source of funding to stakeholders starting in 2017
15.2 Promote development of novel preventive measures on AMR		
15.3 Promote development of novel antimicrobials or other alternative agents		

Objective 16 – Promote research on behavioural science and psychology

16.1 Promote research on awareness and education regarding AMR, infection prevention and control, and antibiotic stewardship	- DH - Academia	Promote source of funding to stakeholders starting in 2017
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Objective 17 – Promote research on health and economic burden

17.1 Promote research in estimating local health burden of AMR	- DH - Academia	Promote source of funding to stakeholders starting in 2017
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Key area 6: Strengthen partnerships and foster engagement of relevant stakeholders

Objective 18 – Strengthen international partnerships and regional collaboration

Strategic interventions	Activities	Lead action party	Target(s) and Timeframe
18.1 Continue participating in international, regional and country initiatives in implementing the Action Plan on AMR	18.1.1 Host a regional symposium on AMR	- DH - AFCD - CFS - FEHD	Organise symposium by 2018

Objective 19 – Inform public policy and facilitate stakeholder engagement

19.1 Inform public policy and facilitate stakeholder engagement	19.1.1 Organise information sharing session(s) for different stakeholders and target audience	- DH - AFCD - CFS - FEHD	Commence by 2017
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