

MALAYSIA NATIONAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE (AMR) – ANIMAL HEALTH

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ANTIMICROBIAL RESISTANCE (AMR) IN ANIMAL HEALTH



Antibiotics are used for three primary purposes in livestock production:

Y IS IT IMPORTANT

1.

To promote animal growth

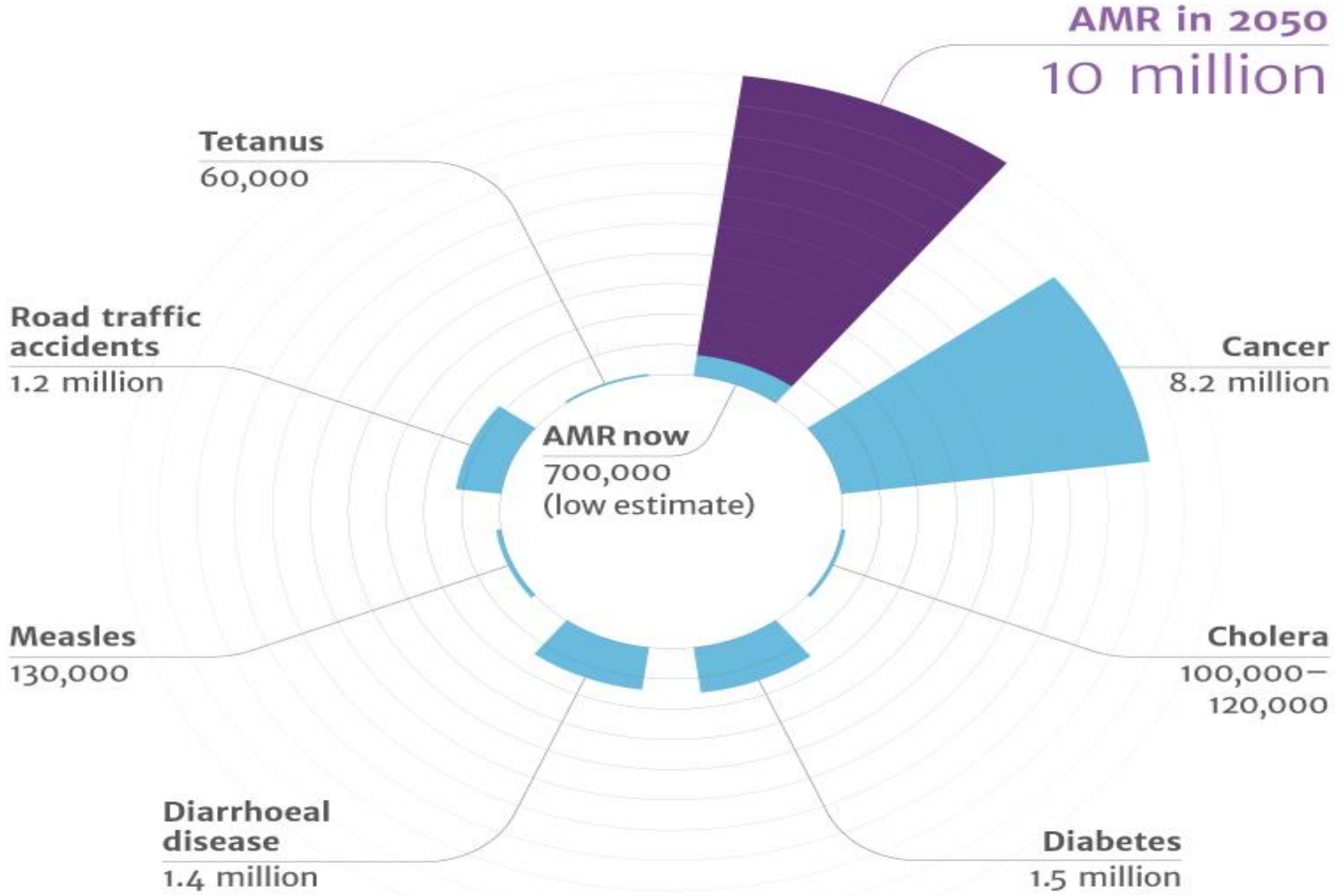
2.

To prevent disease in herds/flocks, and

3.

To treat individual animals with bacterial infections.

From Review on antimicrobial resistance (2016) Jim O'Nei



DVS Preliminary study (Malaysia condition/situation)

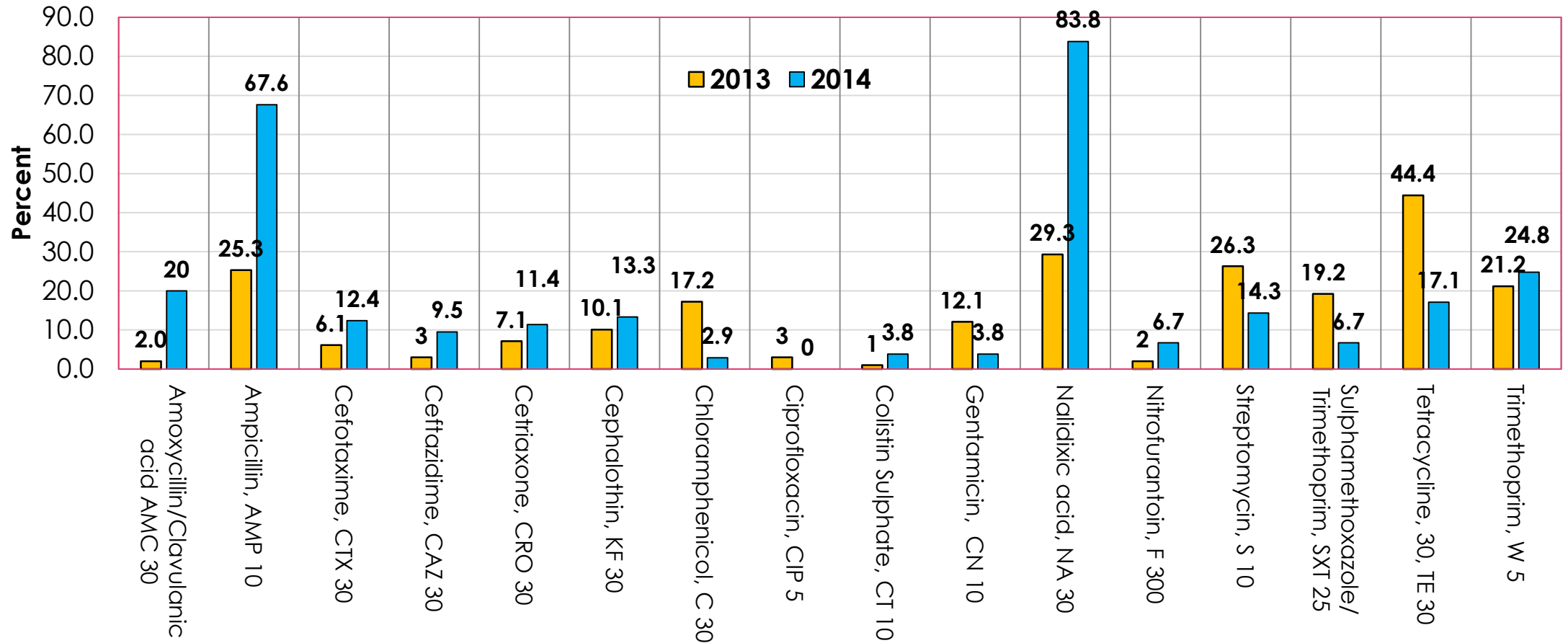
- ▶ In 2012, the DVS preliminary study on antimicrobial resistance in domestic chicken showed thirty eight (38) isolates from difference species of **Salmonella** taken from cloacal swab for antimicrobial susceptibility test found 13.5% tetracycline resistant Salmonella, 5.4% Polymixin B and erythromycin resistant Salmonella and 2.7% chloramphenicol, penicillin G and trimethoprim resistant Salmonella

ANTIMICROBIAL SUSCEPTIBILITY OF SALMONELLA ISOLATES IN DOMESTIC CHICKEN

Drug	Chloramphenicol	Erythromycin	Neomycin	Polymixin B	Penicillin G	Streptomycin	Tetracycline	Trimethoprim
resistant	2.7	5.4	0	5.4	2.7	0	13.5	2.7
Less sensitive	0	89.2	5.4	5.4	62.1	13.5	5.4	0
sensitive	97.3	5.4	94.6	89.2	35.2	86.5	81.8	97.3

Source: Hamid, Akma Ngah 2012, Country Report: Malaysia, presented at FAO International Workshop on the Use of Antimicrobial in Livestock Production and Antimicrobial Resistance in the Asia Pacific Region, 22-23 October 2012, Negombo, Sri Langka

Antimicrobial resistance profiles of *Salmonella* spp. recovered from chicken meat by year



PUBLIC AWARENESS AND EDUCATION STRENGTHS

- Lack of accurate and relevant information
- Lack/less educational program /curriculum

SURVEILLANCE AND RESEARCH

- Not much study done
- Testing need to be standardize
- Data recording need to be synchronize and analysed
- Less research linkage of AMR between human and animal

MALAYSIA SITUATIONAL ANALYSIS ON AMR IN ANIMAL HEALTH

INFECTION PREVENTION AND CONTROL

- Strengthen national policies and standard of practice
- Implementation of the standard (OIE)
- Used of holistic approach biosecurity & vaccination

APPROPRIATE USED OF ANTIMICROBIAL

- Prudent used of antimicrobial
- Responsible ownership

CURRENT ACTION

Registration of veterinary biologics and vaccines

Prudent used of antimicrobials. – Seminars, courses, workshop, education

Surveillance and monitoring on antibiotic at farms, abattoirs and processing plants

Encourage participation in VHM, GHAP, GMP, GVHP, MyGAP

FUTURE PLAN FOR AMR IN ANIMAL HEALTH PROGRAM

1

- To have more clearly of baseline data on AMR in animal.

2

- Establishment of National Antimicrobial Resistant Committee with involvement of various agencies

3

- Strengthen on research, surveillance and monitoring programs.

Continued.....

4

- To educate farmers, public, user of drugs (manufactures, importers, veterinarians, clinicians, student) on AMR in animal

6

- Awareness campaign on AMR

7

- Improve facilities and capability of laboratory, diagnosis method base on international standard (OIE)

Continued.....

7

- Implementation of structured action plan through Technical Working Group (TWG)

8

- Establishment of National Antimicrobial Resistant Committee with involvement of various agencies

9

- Request budget 2018 for AMR but subjected to MOF approval

National Antimicrobial Resistant Committee (NARC)

**TWG 1,
NARC:
Public
Awareness
and
Education**

**TWG 2,
NARC:
Surveillance
and
Research**

**TWG 3,
NARC:
Infection
Prevention
& Control**

**TWG 4,
NARC:
Appropriate
Use of
Antibiotic**

**TWG 1, NARC:
Awareness and
Education**

Strategy 4: Provide the public media with accurate and relevant information on AMR.

Strategy 1: Increase national awareness of AMR through public communication programmes in human and animal health.

Strategy 3: Include AMR in school extra-curricular activities in order to promote better understanding and awareness

Strategy 2: Establish AMR as a core component of professional education, training, certification and development for the health and veterinary sectors

TWG 2, NARC: Surveillance and Research

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Strategies	Details
Strategy 1:	Develop a national surveillance system that includes a core set of organisms and antimicrobial medicines from both health care facilities and the community
Strategy 2:	Develop a national surveillance system for antimicrobial resistance that uses standardized tests for identification of resistant microorganisms and operating to agreed quality standards
Strategy 3:	Develop a national surveillance system for antimicrobial resistance that strengthens surveillance in animal health
Strategy 4:	Establish a comprehensive One Health Surveillance System for AMR that promotes participation in regional and global networks and sharing of information

Strategies	Details
Strategy 5	Develop a national surveillance system for antimicrobial resistance that has the capacity to detect and report newly emerged resistance that may constitute a public health emergency of international concern (PHEIC)
Strategy 6	Implement research to promote responsible use of antimicrobial medicines; defining improved practices for preventing infection in human and animal health

TWG 3, NARC: Infection Prevention & Control

Strategy 1:

- **Strengthen educational programme on hygiene and infection prevention and control measures in healthcare settings, animal husbandry and food processing.**

Strategy 2:

- **Strengthen national policies and standards of practice regarding infection prevention and control activities in health facilities.**

Strategy 3

- **To strengthen national surveillance on healthcare associated infections prevalence (Human Health)**

TWG 3, NARC: Infection Prevention & Control

Strategy 4:

- **Strengthen animal health through implementation of the standards published in the OIE**

Strategy 5:

- **Promote vaccination as a method of reducing infections in human and animals.**

TWG 4, NARC: Appropriate Use of Antibiotic

1

Strengthen educational programme on hygiene and infection prevention and control measures in healthcare settings, animal husbandry and food processing.

2

Strengthen national policies and standards of practice regarding infection prevention and control activities in health facilities.

3

To strengthen national surveillance on healthcare associated infections prevalence (Human Health)

Conclusion

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Malaysia in accordance with the OIE Terrestrial Animal Health Code a series of action plans such as;

- creation and harmonization of national antimicrobial resistance surveillance and monitoring programs,
- monitoring of the quantities of antibiotics used in animal husbandry and
- to ensure the proper and prudent use of antibiotic substances.

Thank
you

