

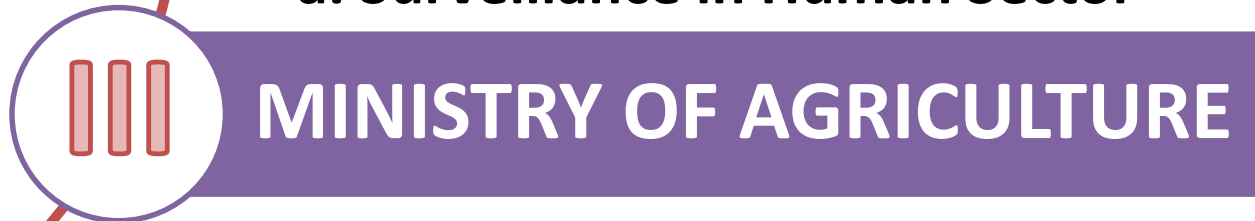


INDONESIA EXPERIENCE ON IMPLEMENTATION OF SURVEILLANCE PROGRAM IN FOODBORNE AMR

OUTLINE



a. Surveillance in Human Sector



a. Surveillance in Live Animal Sector (AMU)

b. Surveillance in Animal Product (AMR)

Introduction, background;

1. Strategic plan of AMU and AMR Controlling Program in human sector has been established since 2005 and launched by ARCC Ministry of Health
2. Ministry of Health has Programs to Controlling AMU and AMR in hospitals, primary health care and community is being implemented
3. Ministry of Agriculture has regulated AMU and AMR control, such as banning on antibiotics growth promoter, and bacteria sentinel resistance path monitoring in animal products
4. MoH and MoA basically have been established strategic programs, surveillance programme, sharing data, but the implementation has not optimally integrated
5. Collaboration between MoH and MoA has been initiated

INDONESIA

INDONESIA
0 km 100 200 300 400 km

Aceh



Papua

34 Provinces, 262 Million People

I. AMR STRATEGIC

5 STRATEGIC OBJECTIVES

raising awareness and understanding of antimicrobial resistance through effective communication, education and training

Strengthen the knowledge and evidence base through surveillance and research

Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures

Optimize the use of antimicrobial medicines in human and animal health

develop the economic case for sustainable investment and to increase investment in new medicines, diagnostic tools, vaccines and other interventions.

Overview of the AMR surveillance concept

information

What
information
needed?

action

What action
should be
done?

control

AMR
controlled

The AMR surveillance system is designed as a tool that can help the efforts of Government of Indonesia to understand the AMR problems

II. MINISTRY OF HEALTH

a. Surveillance in Human Sector

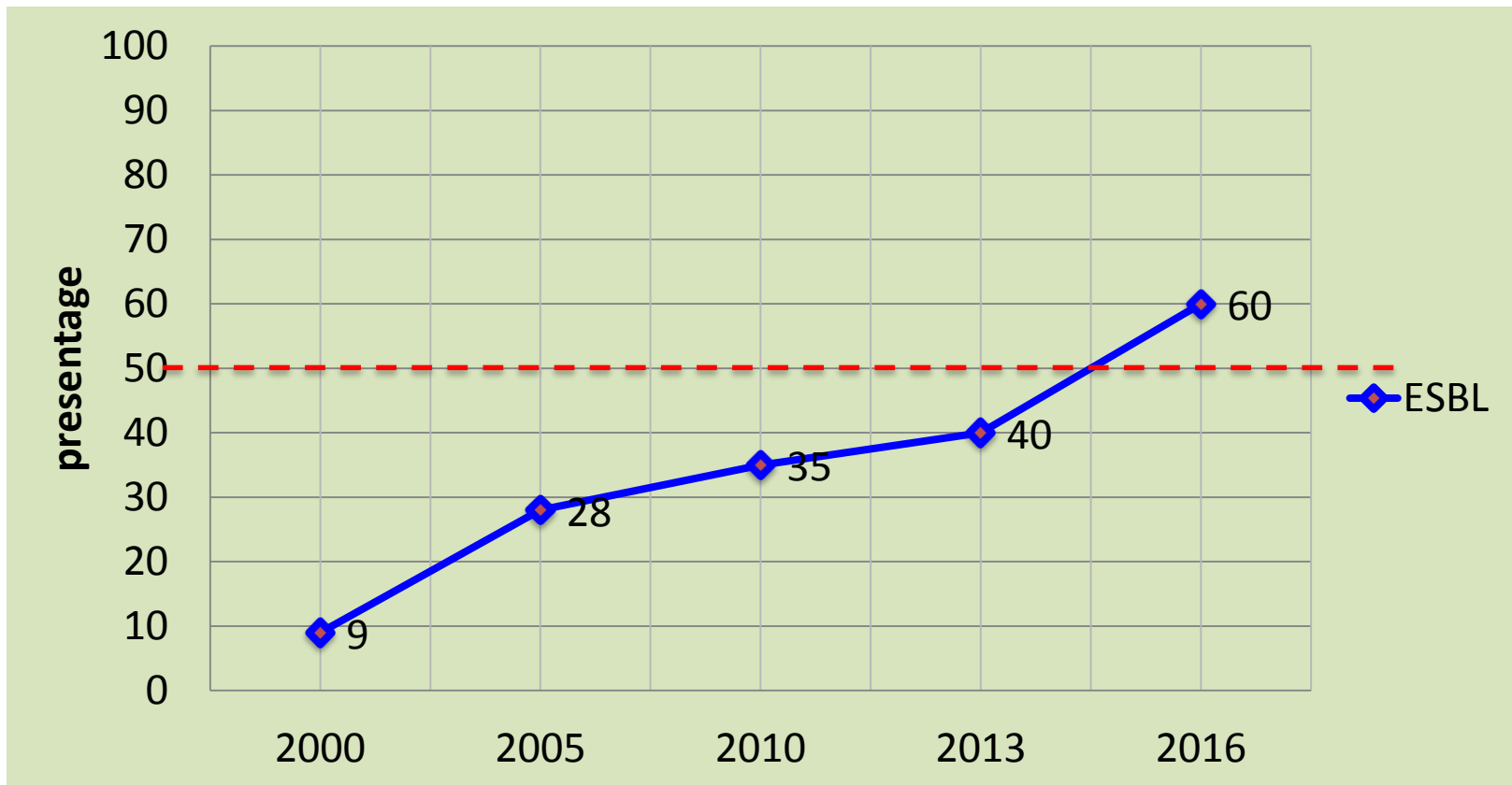
SURVEILLANCE in HUMAN SECTOR

1 AMR and AMU Surveillance 2016

The results of 8 selected hospitals study showed a significant increase in the prevalence of E.coli and K.pneumonia (ESBL +) by 60% (45% -89%)

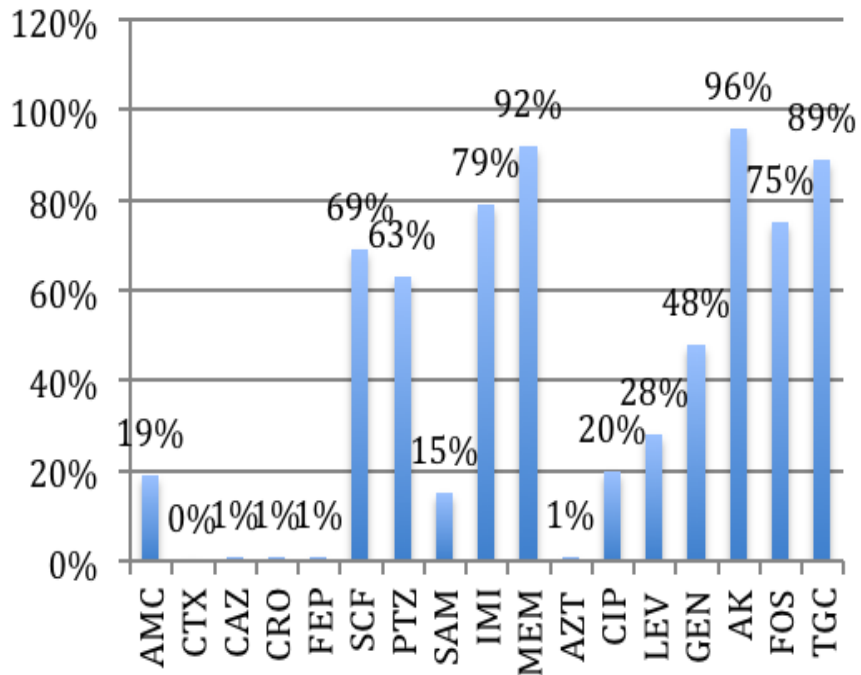
2 20% increase over 3 years indicates a more serious AMR problematic

PREVALENSI ESBL *producing* *E coli* & *K pneumoniae* 2000-2016

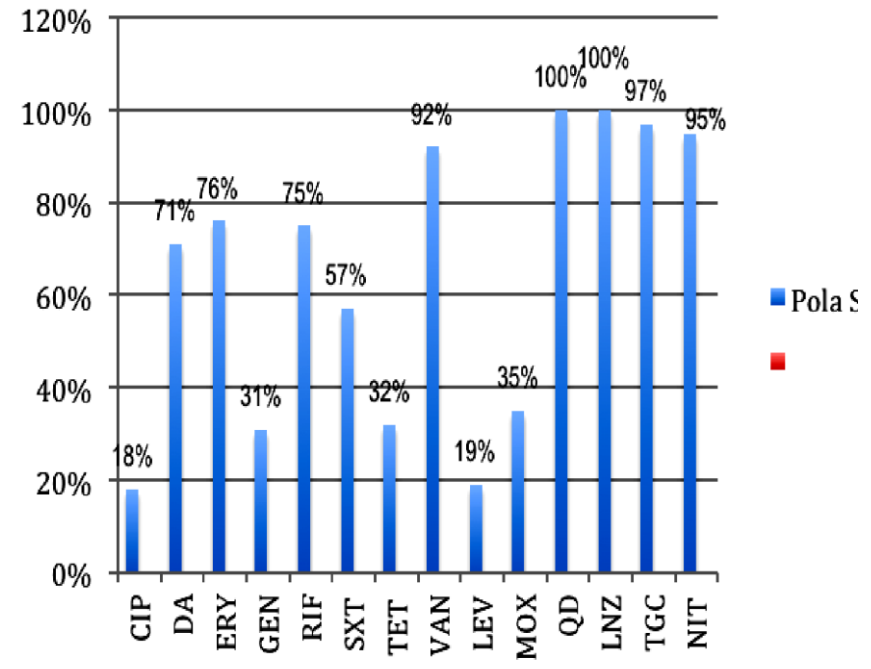


ANTIBIOTICS SENSITIVITY PATTERN OF AMR IN INDONESIA - 2016

ESBL



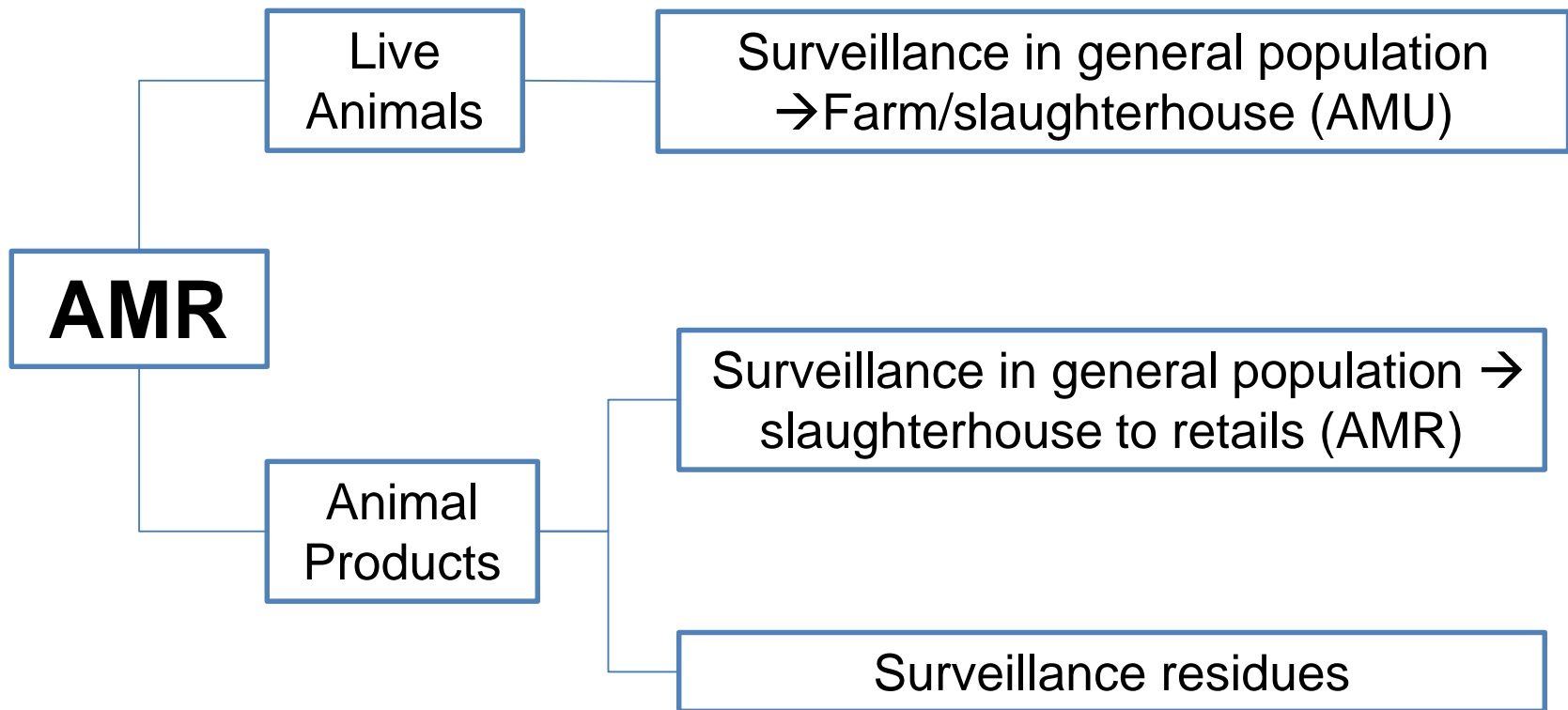
MRSA



III. MINISTRY OF AGRICULTURE

- a. Surveillance in Live Animals Sector (AMU)**
- b. Surveillance in Animal Products (AMR)**

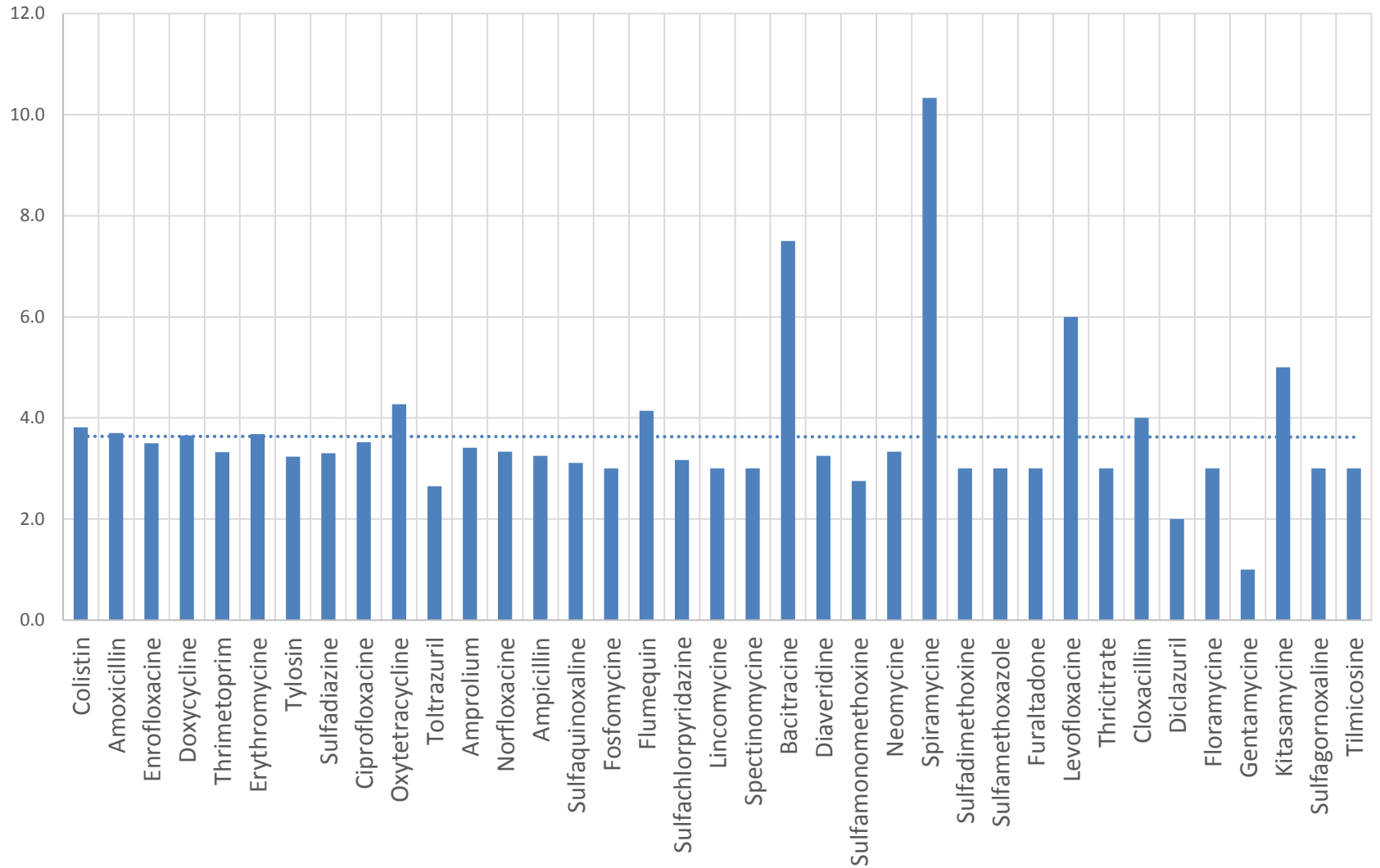
Overview of the AMR surveillance concept



III. MINISTRY OF AGRICULTURE

- a. Surveillance in Live Animals Sector (AMU)
in 3 Provinces**

Duration of Antibiotic Used



III. MINISTRY OF AGRICULTURE

b. Surveillance in Animal Products (AMR)

The existing laboratory for AMR surveillance

Eight Regional Labs BBVET/BVET (DIC)

- Isolation & identification

BPMSPH (NAPACL)

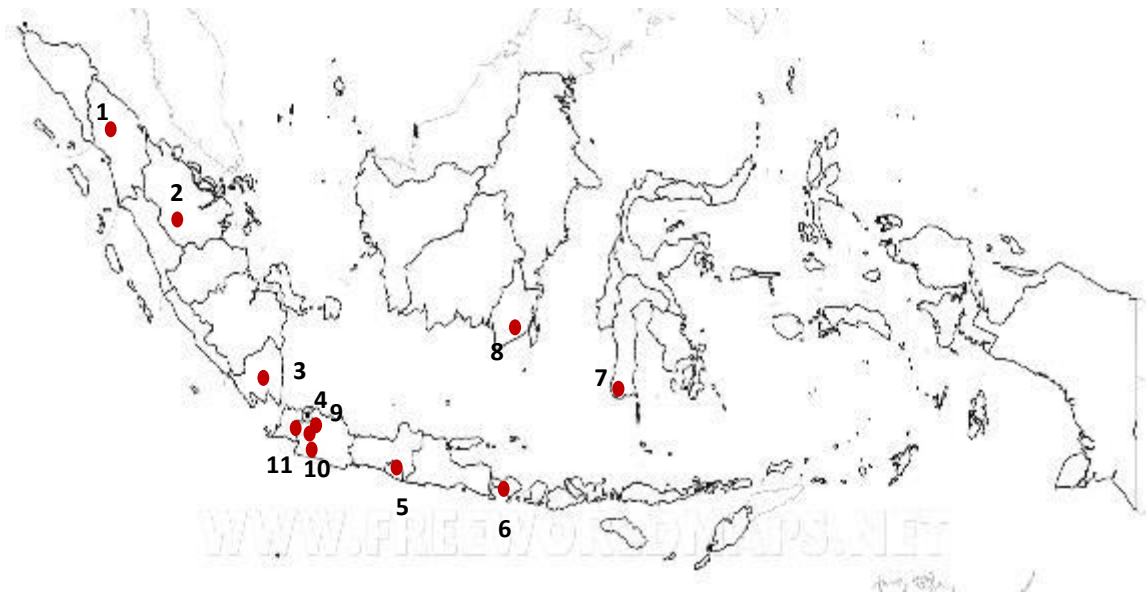
- Susceptibility Test
(phenotype)

BBPMSOH (NVDAL)

- Identification
(genotypic)

BBALITVET (IRCVS)

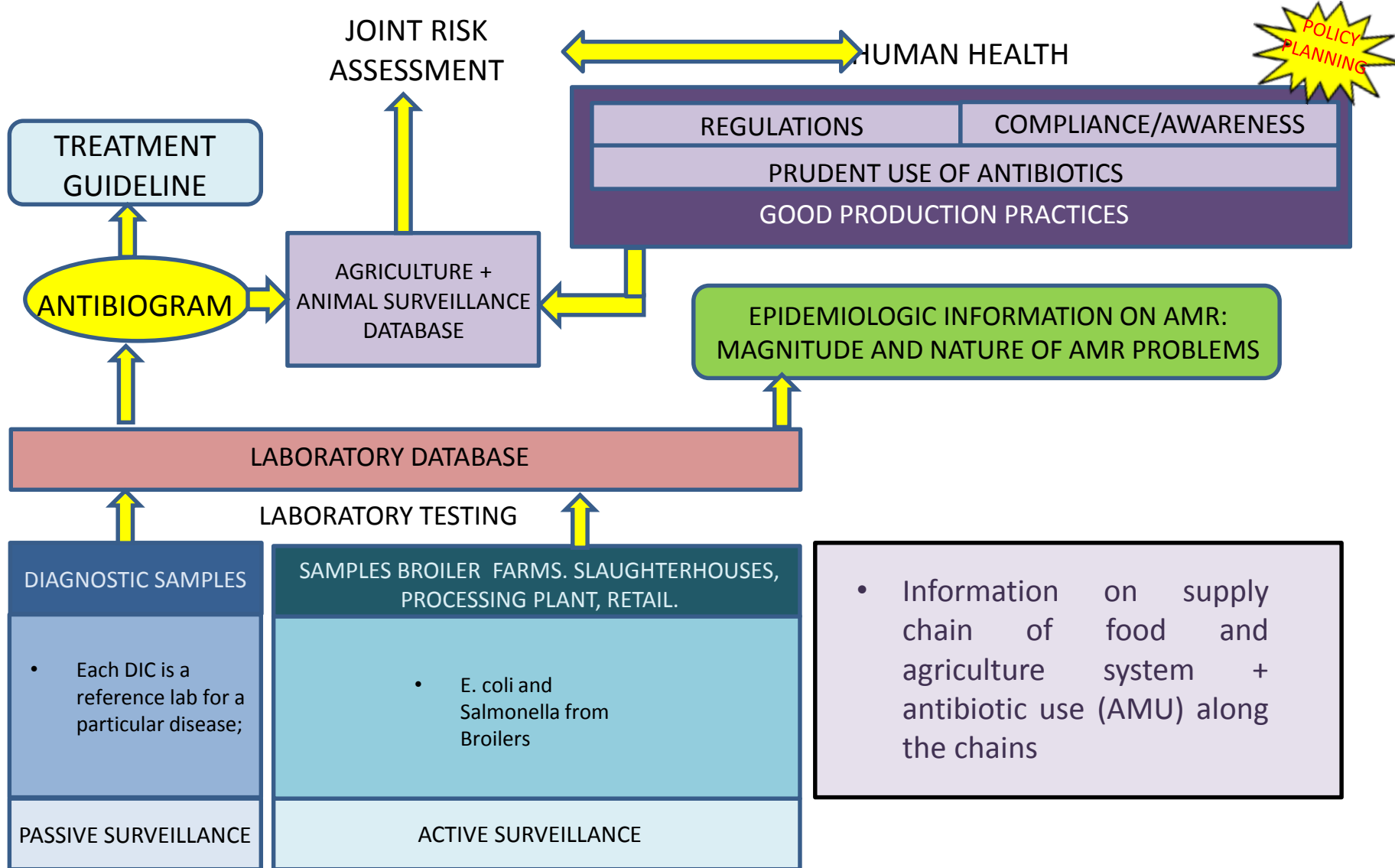
- Sequencing



Legend

1. DIC Medan
2. DIC Bukittinggi
3. DIC Lampung
4. DIC Subang
5. DIC Wates
6. DIC Denpasar
7. DIC Maros
8. DIC Banjarbaru
9. BPMSPH (NAPACL)
10. BBPMSOH (NVDAL)
11. BALITVET (IRCVS)

Development And Implementation Of AMR Surveillance Protocols



The objectives of AMR Surveillance in DGLAHS-MOA in 2017 - 2019

2017	2018	2019
<ul style="list-style-type: none"> - To determine the level of AMR of <i>recovery isolate</i> bacteria from live animal - To determine the level of AMR of <i>recovery isolate</i> bacteria from animal product - Assess the prevalence of antimicrobial resistance of broiler chickens in pilot area with the proper sampling strategy 	<ul style="list-style-type: none"> - To identify the level of AMR prevalence in live animal and animal products 	<ul style="list-style-type: none"> - To identify the level of AMR prevalence in live animal and animal products - To Identify the risk of AMR in animal and human
<ul style="list-style-type: none"> - To identify Antibiotic Residues level in animal Product * 	<ul style="list-style-type: none"> - To identify Antibiotic Residues level in animal Product * 	<ul style="list-style-type: none"> - To identify Antibiotic Residues level in animal Product *

TARGET ANIMAL AND BACTERIA FOR AMR SURVEILLANCE IN 2017 - 2019

Year	Target animal	Target Bacteria
2017	Poultry (Broiler)	<i>Salmonella spp</i> and <i>E. Coli</i>
2018	Poultry (Broiler and layer)	<i>Salmonella spp</i> and <i>E. Coli</i>
2019	Poultry (broiler and layer) and ruminant (dairy cattle)	<i>Salmonella spp, E. Coli</i> and <i>Staphylococcus aureus</i>

AMR Policy Challenges

- Indonesia consist of many islands
- To establish regulation of AMR
- to receive antimicrobials in human medical sector and animal health sector under medical/veterinary prescriptions
- To promote awariness of antimicrobial stewardship and prudent use of antimicrobials
- To control antimicrobials as the growth promoter
- To develop national data collection systems

Future Plan For Strategic and Implementation of NAP

1. Establishing inter ministerial committee on the implementation of Indonesia NAP on AMR to ensure a systematic and comprehensive one health approach.
2. Implementing the Global Antimicrobial Surveillance System (GLASS) on Surveillance of AMR in a one Health Approach
3. Promoting public awareness and community empowerment on AMR through Human and Animal Health Care Providers on local level.
4. Research related to AMR in community, primary health care and hospitals, animal products (poultry meat), and animal feed
5. Multi sectoral budgeting



Thank you