**Slide 1**

Thank you Chair and good morning ladies and gentlemen,

First of all, I would like to thank the Royal Government of Thailand and all organizers for inviting me to share the country experiences in containment of antimicrobial resistance in Thailand.

**Slide 2**

I divide my presentation into four parts starting from a brief background on AMR burden, and situation of antibiotic consumption in Thailand. This is to be followed by containment measures and their results, and then conclusions, challenges and the way forward.

**Slide 3**

I would like to start with the magnitude of AMR burden in Thailand.
The study on health burden from AMR shows that in 2010 there were approximately 88,000 cases of AMR infection in the country. The number of death cases due to AMR infections was estimated at around 38,000 cases in 2010.

On economic perspective, it was estimated that costs of antibiotic use for AMR treatment was around 200 million USD in 2010, and the indirect costs due to AMR such as productivity loss were around 1 billion USD.

**Slide 4**

This slide shows the important list of antimicrobial resistant bacteria in Thailand. This includes
- ESBL producing enterobacter such as Klebsiella Pnuemonia and E.coli,
- Acinetobacter and Pseudomonas Aeruginosa in hospital settings,
- Multi-drug resistant Staphylococcus e.g. MRSA
- Carbapenem resistant Enterobacter,
- Vancomycin-resistant enterococci
- MDR- and XDR-TB

**Slide 5**

When we look at the magnitude of antibiotic consumption in Thailand, data from the National Drug Accounts and Thai FDA show that in 2009 and 2012 Thai people consumed antibiotics around 370 and 570 million USD respectively. The costs of antibiotic use were more than 10% of total drug consumption of

the country.  The three most popular antibiotic consumption in Thailand are: Penicillins, Cephalosporins, and Carbapenems.

**Slide 6**

AMR containment measures in Thailand are quite fragmented and complex. We use multi-level approaches at Global, Regional, National and local levels to tackle the AMR problems.

Also, the measures we used comprise multi-facet approaches ranging from education measures, regulation, financial incentives, and management approaches.  Also we employ multi-sectoral involvement approach which include the involvement of human and animal and non-human sectors.

**Slide 7**

When we explore different levels of the policies, we can see the Global and Regional policies on AMR which include the GHSA, GAP on AMR, Jaipur Declaration from WHO Regional Office of SEAR, ASEAN Post-2015 which AMR is one the health development agenda post 2015.

For the National policies related to AMR, currently we have two platforms of the national policies.  These are
  • The National Drug Policy and Strategies 2012-2016
  • The National Strategies on EID 2013-2016

**Slide 8**

On implementation of the AMR containment in Thailand,
  • AMR surveillance system has been set up under the responsibility of Department of Medical Science,
  • National program on Nosocomial Infection Control under the responsibility of the National Committee in Bamrat Naradoon Hospital,
  • Antibiotic regulation done by Thai FDA:
    ○ Antibiotic reclassification
    ○ Prohibition of using antibiotics as growth promoter in the livestock,
  • Using financial incentives and administrative measures: P4P policy on NHSO, Hospital Accreditation, Pharmacy Accreditation.
  • Education - revisions on curriculum of health personals,  including doctors, pharmacists, and also veterinarians.
  • Collaboration efforts are made among 10 committees, and 8 subcommittees and various Departments in MOPH.

**Slide 9**
At the program and project level,
We implement
- Antibiotic Smart Use (ASU) project,
- AMR containment program under HSRI,
- RDU hospital project in Chulalongkorn University hospital,
- Public campaign and network strengthening by civil society

The targets of implementation include hospitals, clinics, pharmacists and communities.

**Slide 10**
Now let's move to the results from the implementation of the regional and national policy on AMR containment.  We found that population-based data are quite limited.  The available data are only the monitoring data on the rates of antibiotic prescription in OP services for URI and acute diarrhea.
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**Slide 11**
This slide shows an example of provision of financial incentives to public hospitals

**Slide 12**

**Slide 13**

**Slide 14**