Access vs. Excess to Antimicrobial under the Universal Health Coverage Systems in Thailand

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Country Profile: Thailand (2014)

- Population: 65.7 million
- GNI (2013): $US 5,570 (UMIC)
- Health status:
  - U5MR: 14/1,000 LBs
  - MMR: 48/100,000 LBs
- ANC & hospital delivery: 99%
- Doctor+nurse/midwife: 3.0/1,000 pop.
- UHC in 2002 with comprehensive package and almost no co-payment
- Gov’t health spending: 14 % TGS
- Total Health Expenditure (2012):
  - < 5-6 % GDP [< $US 320/cap]
  - Out of pocket: 14% of THE
AMR burden

Thailand (Pumart 2011)
- 64 millions
- 38,000 deaths
- 0.6% of GDP

Global context
- At present, 700,000 deaths globally due to AMR.
- Failure to tackle AMR will lead to 10 million deaths/year and cost US$ 100 trillion by 2050.
- The highest impact will be found in Asia and Africa, 4.7 and 4.2 million deaths, respectively. (O’Neill J, 2014)
Access to Antimicrobials under UHC

• Universal right of access to all antimicrobials in the National Essential Drug Lists (more than 800 items of drugs)

• Free at point of services without co-payment

• Tax supports to provider by capitation systems so provider shoulder the financial burden of prescribing antimicrobials not the patients – reducing excessive use but also access??
Challenges to Access

• Inclusion of New and high price antimicrobials in the NEDL – based on evidence on Health Technology Assessment – serious price negotiation, e.g. third line ARVs, new antivirals for Hepatitis C

• Providers’ hesitation to prescribe certain high price antimicrobials due to financial burden – centralized purchasing and VMI systems
Antibiotic consumption

- **Human sector:** Antibiotic consumption is on the rise worldwide, with a 36% increase between 2000 and 2010.
- **Animal sector:** the global consumption of antimicrobials will increase by 67%, from 63,000 tons to 105,000 tons.

**Thailand context (2014)**

- Total drug consumption: 6,000 million USD
- >20% are antimicrobials and 50% are antibiotics
Excessive use of antimicrobials

- Use in private pharmacies, clinics and hospitals based on out of pocket fee for services payment – escape from the long queue in the UHC systems
- The culture of doctors ‘prescribe’ and ‘dispense’ and the pharmacist ‘dispense and prescribe’ – strong financial incentives
- The Know-do gap, e.g., URI, Diarrhea, simple wounds, prophylaxis
- Use as growth stimulators in animal feeds
Toward restricting antibiotic sale
Top-down & Bottom-up

• **Top-down approach**
  – Subcommittee on antimicrobial reclassification
    • Antimicrobials for animal use
    • Antimicrobial for human use

• **Bottom-up approach**
  – Antibiotic Smart Use (ASU) (2007 – present)
  – ASU-kids 2014 (QSNICH – Children hospital)
  – Antibiotic Awareness Day in Thailand 2013 (DSMDC/CSO)
  – Rational Drug Use Hospital project (2015 – present)
Antibiotic Smart Use (ASU)

• **Ultimate goal:** To create new social norms on rational use of antibiotics
  – Use 3 diseases: URI, acute diarrhea and simple wound as a pioneering case

• ASU was introduced in 2007 by FDA under a seed fund from WHO.

• ASU practice was adopted in many settings
  – Teaching hospitals
  – Children hospital (ASU-kids)
  – Provincial / district / sub-district hospitals,
  – Pharmacies
  – Communities & Schools
  – Medical / Pharmacy schools
Phase I: Test interventions to change prescribing behavior in 10 district hospitals and 87 health centers in Saraburi province. (2007-8) (Quasi-exp. with control group) (WHO)

Phase II: Test feasibility of scaling up program in 44 hospitals and 627 health centers in 3 provinces (large, medium and small provinces) and 2 hospital networks (public and private hospitals) (2008-9)

Phase III: Toward sustainability via policy advocacy, network strengthening and development of new social norms (2010-present)

P4P by NHSO
• In 2009-2011, ASU is accepted as a process indicator for P4P
• In 2012, the NHSO change ASU into the output/outcome indicator.
Rate of antibiotic prescription in URI (2012 – 2015)

Data sources: OP VISIT = 344,054,775 VISIT; DIAG_URI = 25,299,389 VISIT; ATB USED = 12,373,774 VISIT
Source: National Health Security Office (Trithape Fongthong, 2015)
Rate of antibiotic prescription in acute diarrhea (2012 – 2015)

Data sources: OP VISIT = 344,054,775 VISIT; DIAG_AGE = 5,619,001 VISIT; ATB USED = 2,398,638 VISIT
Source: National Health Security Office (Trithape Fongthong, 2015)