

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

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- 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

A world map with a red pushpin on Thailand. A semi-transparent box is overlaid on the map, containing text about Thailand's 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



Thailand context (2014)

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

- **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

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

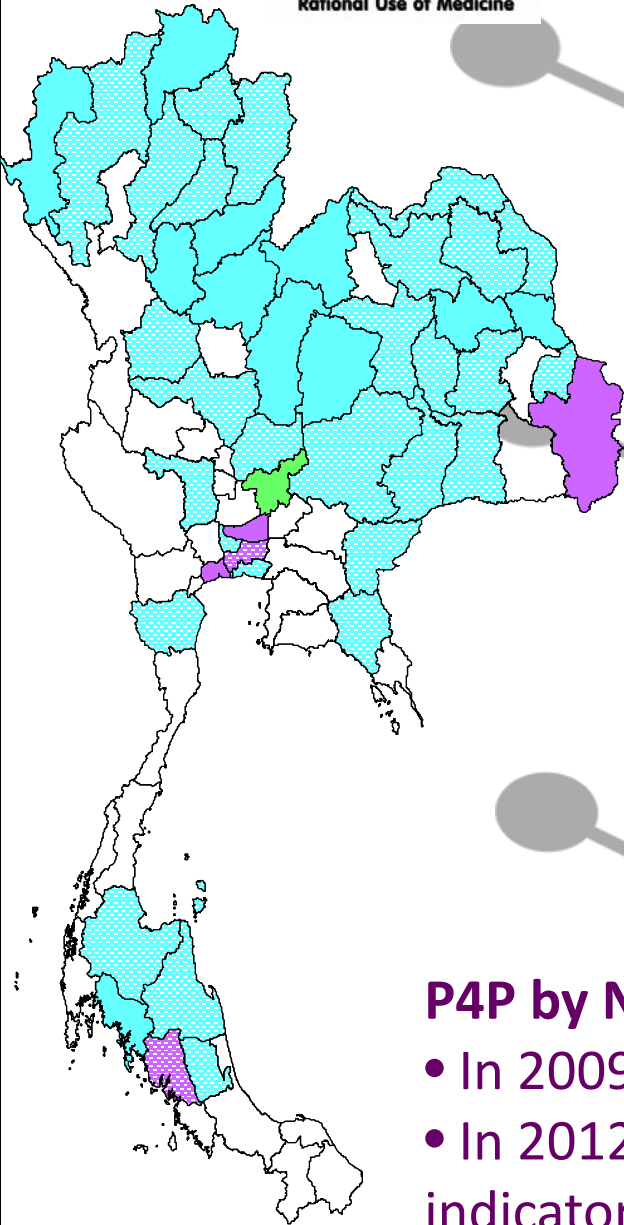
Toward restricting antibiotic sale

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)

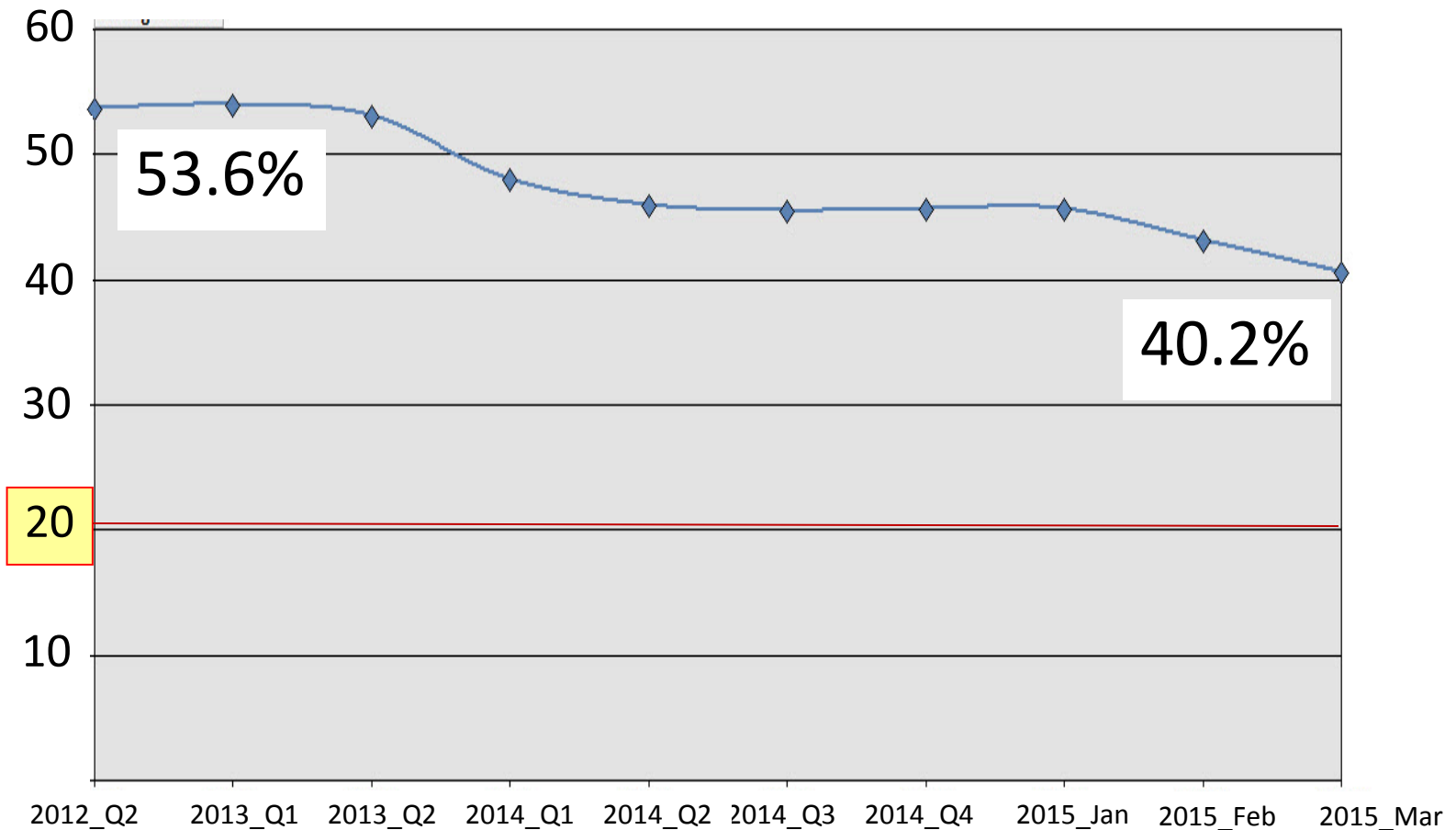
Phase II: Test feasibility of scaling up program in 44 hospitals and 627 health centers in 3 provinces (large, medium and small provinces) and 2 hospital networks (public and private hospitals) (2008-9)

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

P4P by NHSO

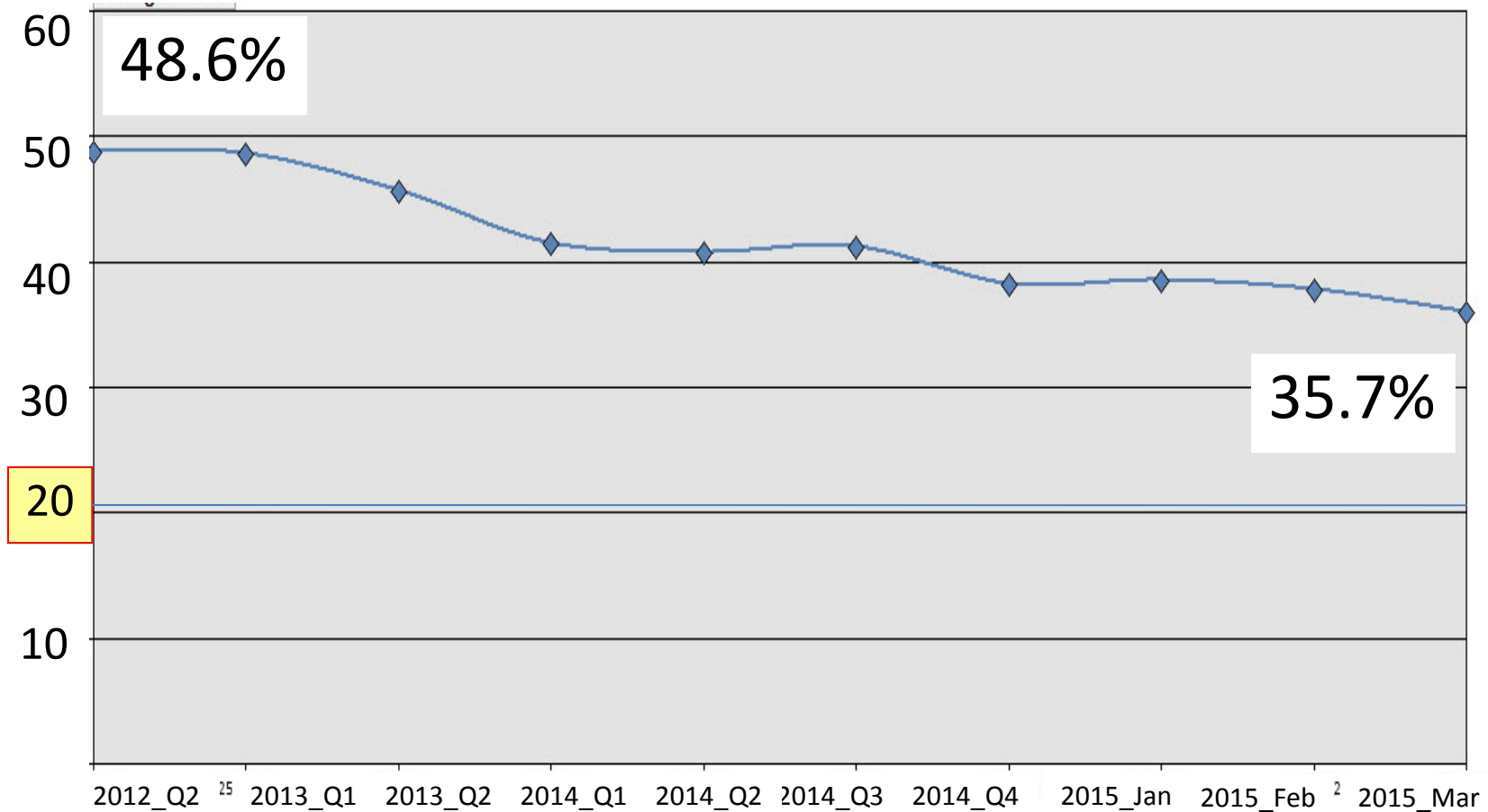
- In 2009-2011, ASU is accepted as a process indicator for P4P
- In 2012, the NHSO change ASU into the output/outcome indicator.

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)