Introduction and impact of PCV13 on carriage and pneumonia, in Lao PDR

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Situation analysis

- Population
  - 6.7m
  - 180,000 live births pa
  - 30% urban, 70% rural
- LIC, GNI $1260
- High child mortality: IMR 68/1000 lbs; U5MR 73/1000 lbs
- EPI coverage: DTP3 87% and MR 82%
  - ~70% EPI delivered by mobile teams
Pneumococcal disease

- Low documented IPD rates
  - 2003-9* at one major urban hospital: 35 pneumococci
    - Of ~11,000 blood cultures: 0.2% Spn
    - Of 353 CSF: 5.4% Spn
    - Pneumococci commonest CSF bacteria in U5s
    - Most common STs: ST1 (n=6), then STs 5, 6A/B/C, 14, & 23F
- Pneumonia is one of the main paediatric problems & estimated to cause 19% of all U5 deaths
  - Central hospitals: 15% very severe; CFR unknown
  - Districts: 10% very severe; 7-9% sent home to die
  - CFR higher in district and provinces
  - Likely that pneumococcus is a major cause

PCV13 introduction

- PCV13 introduced with GAVI Alliance support
  - 3+0 EPI schedule; no catch-up
  - November 2013, Vientiane Capital and Vientiane province
  - 2014: nationwide

- Reasons to introduce
  - Respiratory infection is the first leading cause of morbidity and mortality among children under five
  - Access to antibiotic is still limited in many remote communities, worst in raining seasons
  - Community demand for vaccine is good, since families often see their children experience the symptoms
PCV13 evaluation

- No studies documenting PCV impact in Asia
- In April 2013 request to WHO for support for evaluation

Dilemma-no baseline data, imminent vaccine introduction
What is the impact of PCV13 on childhood pneumonia and circulating pneumococcal serotypes in Lao PDR?
Collaborators

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