Preliminary results of the 2nd National TB Prevalence Survey in Cambodia and its comparison with 2002 survey results

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Background: The 1st national tuberculosis (TB) prevalence survey, Cambodia, which revealed the prevalence rate of 440/100,000 in smear-positive pulmonary (S+) TB and 1,071/100,000 in smear-negative, culture-positive (S-C+) TB among those aged 15 or over, was conducted in 2002, when the DOTS was being decentralized. The notified numbers of S+ TB in the national TB control program (NTP) peaked in 2005, soon after DOTS services became available at all heath centers in Cambodia. The NTP, Cambodia conducted the 2nd national TB prevalence survey in 62 clusters selected by the population proportionate multistage cluster sampling method to examine a trend in prevalence rates of TB between 2002 and 2011.

Methods: 37,413 (92.7%) subjects of 40,373 eligible persons aged 15 or over were screened by chest radiography and symptoms for collecting two sputum specimens. A direct smear of every sputum specimen was examined by fluorescent microscopy and solid media were used for culture. Identification of Mycobacterium tuberculosis was performed by Capilia TB assay. A panel of experts composed of at least two respiratory physicians and/or radiologists decided the final radiological findings.

Results: Out of 37,413 subjects, 98 TB survey cases were identified as S+TB and 223 as S-C+TB, which showed the S+ prevalence rate of 260/100,000 (95%CI: 200-319) (41% reduction compared with that in 2002) and the S-C+ prevalence rate of 590/100,000 (95%CI: 482-699) (45% reduction compared with that in 2002) among those aged 15 or over. Classifying them into two groups based on their symptoms, the S+ prevalence rates were 119/100,000 among the symptomatic (55% reduction compared with that in 2002) and 140/100,000 among the asymptomatic (20% reduction compared with that in 2002). For S-C+ prevalence, a 59% reduction (130/100,000) in S-C+ symptomatic and a 39% (461/100,000) reduction in S-C+ asymptomatic were observed.

Conclusion: A downward trend in TB prevalence rates by 4-5% annually was observed. The DOTS strategy which focuses on people with TB symptoms who seek medical care is effective in reducing symptomatic TB, but is less effective in reducing asymptomatic TB. To more rapidly decrease TB burden, not only symptomatic patients but also asymptomatic patients should be targeted in TB control.
Age Distribution
Prevalent Smear-Positive Cases

Comparison between 2002 and 2011
Prevalence of Smear-Positive Cases

Comparison of prevalence rate between 2002 and 2011
(aged 15 or over, provisional)