Results from the pilot of the checklist for TB surveillance standards and benchmarks

China
Overview of surveillance system

Chinese infectious Disease Reporting System (IDRS)
- 39 notifiable infectious diseases to be reported by law
- 100% geographical coverage
- Vertical from national to the lowest level (township)
- Web-based, real time, case based reporting
- the common output automatically

TB Management Information System (TB-MIS)
- Only Report PTB and Extra-PTB by TB dispensaries and some TB special Hospitals
- 100% geographical coverage
- Case-based data available at different level, especially at the national level
- There are automatic checks at data entry, automatic verification reports for data quality, automatically made the mainly NTP outputs (realtime and fixed time)
Overview of surveillance system

Disease Surveillance Point System (DSPs)

- Stratified cluster sample, total 161 sites, cover the whole country
- About 6% population coverage (70 million)
- Less than 10% ill-defined
- Active surveillance for deaths with ill-defined causes
- Use the verbal autopsy (VA) to improve the diagnosis of the death
- Death classification adopted ICD10
Main findings from pilot test (1):

Essential Features - Table 1

• China meets most of the standards/benchmarks

• Problems identified:
  – TB-MIS software updated in 2007 and 2010, training must be done
  – Staff – high turnover, poor qualification, and high workload, particularly at county level
  – The quarterly and annual report only distributed at the provincial level
  – The data could not input TB-MIS timely with the speed of the internet.
Main findings from pilot test (1): Essential Features - Table 1 (cont.)

• S&B mostly well understood and easy to collect

• Standards/benchmarks that could not be adequately assessed
  – Surveillance system output— the national output only to the provincial level, but the provincial output to the prefectural and county level,

• Standards/benchmarks identified to be important but not in the checklist:
  – The different responsibility and role of the M&E staffs, so the standard and benchmark also different

• Standards/benchmarks thought to be unnecessary:
  – None
Main findings from pilot test (2):
System coverage - Table 2

• China meets most of the standards/benchmarks, but for VR(DSPs) only 6% population.

• The notification data meet/be close to standards/benchmarks, but have not the whole country study to collect the sufficient evidence to demonstrate this is true

• Problems identified:
  – Not done the CMR study to verify the low proportion of the undiagnosed cases less than 10% (the draft benchmark)
  – Under-5 mortality at 17.2 > benchmark of <10/1000
Main findings from pilot test (2): System coverage - Table 2 (cont.)

- **Standards/benchmarks that could not be adequately assessed**
  - The VR of coverage the whole population was not yet established, only DSPs (6% coverage) and web-based death report system in hospitals.
  - The lower proportion of the undiagnosed cases less than 10% by CMR is very challenging experience.

- **Standards/benchmarks identified to be important but not in the checklist:**
  - The assessment of under-reporting from all providers less than 10% should have a standard procedure.
  - Time period for these evaluations not clear

- **Standards/benchmarks thought to be unnecessary:**
  - None
Main findings from pilot test (3): Core data items

• China meets almost all the standards

• Problems identified:
  – HIV status only available for some cases
  – Data on whether cases were in prison only available after 2009
  – MDR status mostly restricted to retreatment cases
Main findings from pilot test (3): Core data items (cont.)

• Standards that could not be adequately assessed
  – Monitoring of TB deaths at VR by national levels

• Standards identified to be important but not in the checklist:
  – Collection of microbiological results of the SS+ during the treatment

• Standards thought to be unnecessary:
• TB with concurrent diseases like diabetes and % TB cases that smoke not collected
Main findings from pilot test (4): Data quality and completeness

• China meets some standards
  – E.g. 21 core variables, >95% complete for 20/21 variables, 1 in range 90-95%
  – Internet case-based reporting system with delays usually < 2 months
  – National data internally and externally consistent

• Problems identified:
  – Duplications known to exist and 2009 study showed standard of <5% not met, but have the consulting duplication functional module
  – 1.1% cases have treatment outcomes missing in 2009
  – Apart from documenting % missing values on "essential variables", data quality supervision is done to verify data completeness
  – Insufficient staff to analyse/interpret data, particularly in county level
Main findings from pilot test (4):
Data quality and completeness (cont.)

- **Standards that could not be adequately assessed**
  - Limited assessment of whether lab-confirmed results reported as cases
  - Whether <5% implausible values - will be done
  - Internal consistency will be done
  - External consistency at different level

- **Standards identified to be important but not in the checklist:**
  - The timely of data quality assessment is also important, in China, the information must input less than 24h, the follow-up information must input less than 48h

- **Standards thought to be unnecessary:**
  - none
General comments/Lessons learned

– The surveillance checklist is very comprehensive and useful
– The recording quality of the source document is very important
– To establish a mechanism of data assessment
Recommendations

– The data quality assessment should include the timeliness, completeness and accuracy

– The assessment approach will be different by the data-based and case-based information system

– The checklists should have different assessment methods and contents at different level

– The assessment standard and benchmark should have a range for different countries for the different condition.
Thanks for your attention!