Electronic recording and reporting for TB care and control: main advantages and key questions

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Case-based system

- More data
- More quickly
- Better quality
- Detailed analysis
"What system or software should we use?"
Back to basics...

What questions would I, as a systems analyst, ask TB care and control people?
Answer:

Many questions!

IT people need to understand purpose, processes, + ....
Can TB care and control people answer these questions?
What are the available options?

Which is the best option?
Electronic recording and reporting for tuberculosis care and control

http://www.who.int/tb/publications/electronic_recording_reporting/
Concepts & processes in plain language

No detailed technical specifications

Experience from many countries
Software development
Evolution?
Cycle

Analyse (Requirements)

Design

Build

Test

Specify

Buy

Rollout

Maintain

Cycle
Cycle

- Analyse (Requirements)
- Build
- Test
- Rollout

System / components / tweaks
Long-term commitment not a time-limited project
Passion
Key questions

Organization
Scope
Capabilities
Resources
Infrastructure
Definitions and reporting framework for tuberculosis – 2013 revision
Key questions

Scope:

What are the primary objectives?

Who are the users and beneficiaries?
Key questions

Scope:

Which patients will the system cover?

Aim for all notifiable TB patients drug-susceptible & drug-resistant
Key questions

Capabilities:

Who enters data, where and when will data be entered, and how do data flow within the system?
Key questions

Capabilities:

What data quality assurance processes are required?

How is feedback provided to users?

What standard outputs, reports and other analyses are required?
Changes how people work
People engaged with interactive systems as part of daily work, not passive, one-way data entry.
Useful information to make informed decisions
<table>
<thead>
<tr>
<th>Clinical Details</th>
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<tr>
<td>Date of onset of symptoms</td>
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<tr>
<td>01/03/2010</td>
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Source: Health Protection Agency, UK
5. Confirmed cases without DST recorded

6. DST result recorded without type of drug resistance

7. Type of drug resistance recorded without DST

8. Recorded as cured but with last culture or microscopy positive

Source: Management Sciences for Health, Brazil
Alerts

Treatment outcome
- 7 treatment outcome reports due. View
- 43 six month treatment outcome reports possible. View
- 0 twenty four month treatment outcome reports due.

Case transfers
- 0 inbound transfers pending.
- 0 outbound transfers pending.
- 0 rejected outbound transfers pending.

Laboratory isolates
- 0 unmatched laboratory isolates available for matching.

Source: Health Protection Agency, UK
Frank's examples of real-time feedback
Detection of outbreaks
Data are checked, used, analysed and reviewed multiple times and at different levels
Data quality

• Standard operating procedures
• Training, support
• Data audits
• Data management unit?
2011

2013?
Key questions

Scope:

Will the system be a stand-alone system or will it be integrated with other electronic systems?
Data standards

- Region, district codes
- Diagnosis, treatment definitions and codes
- Patient identifiers
eHealth standardization and interoperability

"the electronic transmission of personal or population data [...] requires adherence to standards in health data and technology in order to achieve a secure, timely and accurate exchange of data for health decision-making"
Coming to an MoH near you (maybe):

National eHealth strategy