Bringing us all together: Developing a fully integrated National case and incident management system for Wales

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25 April 2018
Background

- IBID in use across Wales since 2013, before this CoSurv
- IBID designed as primarily a surveillance tool, with automatic LIMS uploads daily (all Wales)
- Used by Health Protection Teams and LAs to receive laboratory notifications and log clinical notifications
- Limited case management functionality
- No shared database of case and incident management information available (stored locally by 4 Health Protection Teams)
Is an integrated approach possible?

Advantages in Wales

- Big enough to do it; small enough to do it
- All Microbiology services in Wales share a common LIMS
- History of good collaboration between HPT and LAs
- Existing systems used by NHS and LAs – CoSurv; IBID
- Existing all Wales local authority networks
Is an integrated approach possible?

Informatics

Bringing us all together
Starting off
Setting out our needs and considering our options

• A Business Case was submitted to PHW Executive Team
• Key user requirements for an integrated case and incident management system developed
• Two options to consider:
  1. Develop in-house using expertise within PHW
  2. Purchase an existing software package
• Informal assessment process undertaken within PHW
• Key assessment considerations agreed
Option appraisal
Considerations

- Cost – development vs procurement
- Influence – developer / key partner vs customer
- Timescales – how quick did we need it
- Collaboration – 200+ users require access
  - 4 Health Protection Team offices (PHW)
  - 22 local authorities
- Confidence (pedigree) – PHW Informatics team had done it before
- LIMS linkage (LabExpert)

Outcome – develop the software in-house
Development
Keeping on track

Development began in April 2016 with a commitment to deliver a basic product in April 2017, implementation after this date

• A user requirements document prepared but this was not detailed
• Fortnightly Project Board meetings allowed users to keep up with developers
• Project Board included: HPT, CDSC, LA and Informatics representation
• Flexibility was invaluable
• Name changed to avoid confusion: now Tarian, Welsh for shield
Implementation

• 1 day training sessions (4 locations) provided for staff from all LAs and Health Protection Team offices
  • Expectation that training would then be cascaded within local authorities
• Not possible to roll out gradually as IBID needed to cease
• Tarian went live on Monday 15 May 2017
• New users added as and when confirmation was received that they had been trained in their workplace
• Comprehensive user manual provided and available via a link in the product itself
Features of Tarian

**Oversight**
- Graphical overview of last 21 days
- Data point access to case details
- All partners see the same information, live

**Workload management**
- Worklists allow for management of workload
- Prioritisation of tasks associated with case

**Case management**
- Shared PHW / LA record
- Records and files linked
- Task sets created to prompt public health action

**Incident management**
- Shared PHW / LA record
- Reported and open incident data available for surveillance
- Cases can be linked to incident record

Bringing us all together
Exporting data
Data for surveillance

• Surveillance / case management questionnaires can be generated through XML extensions
• Data exported from Tarian for analysis / visualisation using other packages
  • Flat files generated daily for CDSC
  • User defined data exports in excel
Learning points

• Keep it simple – don’t overload screens; use clear icons
• Don’t ask too much of it – enable data export to other platforms/packages (eg. Tableau, R, STATA)
• Only worry about what is important – all users will never enter data the same way, identify critical fields and concentrate on these
• Consider the late adopters – don’t adopt the pace of the early or late adopters, find a middle path and be supportive of those that are struggling
• You can’t please everyone all the time – so don’t try!
What’s next in Tarian?
Future development opportunities

- Continued support from PHW Informatics Team
- Change Advisory Board operating to engage with all partners
- Improve ‘agile’ working
- Cloud based surveillance questionnaires
- Schema can be developed for other topics:
  - Neonatal hepatitis B scheme
  - Environmental Public Health
What’s next more broadly?  
Microbiology developments

- Molecular testing for enteric pathogens – PCR testing at Public Health Wales laboratories:
  - Starting May 2018 in Aberystwyth
  - Resource implications?
  - Not always clear cut...when is a VTEC...STEC...E coli O157
  - Work in progress and all LAs need to be engaged
My thanks go to…

Colleagues in the Health Protection Team, CDSC and local authorities who supported and contributed towards development. Unfortunately too many to name them all, but...

Ray Henry for having the confidence to start us off; Mark Thomas, Chris Ollier, Edward Davies, Andrew Olden and others from the Informatics Team for having to ability to get us there!

Chris Johnson and Jane Salmon for taking Tarian forward