Presentation on freely available national reportable disease data from Project Tycho, by Dr. Wilbert van Panhuis, Univ. of Pittsburgh

Status of current use cases and accompanying datasets:

• Non-syndromic cluster detection using chief complaints
• Data quality monitoring
• Special event surveillance

Schedule use-case-specific calls?

Strategies for soliciting and refining additional use cases, and for forming and providing shareable benchmark datasets
ISDS Technical Conventions Committee:

Technical Conventions

Committee Leadership
Chair: Howard Burkom, PhD, Johns Hopkins University Applied Physics Laboratory
Board Liaison: Atar Baer, PhD, Public Health - Seattle & King County
Staff Liaison: Tera Reynolds, MPH, ISDS

Mission (Draft)
Facilitate and expedite the development, evaluation, and implementation of technical methods for public health surveillance by

• Collecting, classifying, posting use cases (problem descriptions, requests for assistance) from public health professionals.
• Discussing use cases as needed in open forums to derive well-defined technical problems of

Upcoming Events
Meaningful Use Community Call
on January 13, 2014
BioSense User Group Meeting
Facilitate development of technical methods for public health surveillance by

1. Collecting public health use case problems
2. Conducting open forums for specification:
   Use case => Well-defined technical problem
3. Obtaining/deriving benchmark datasets
4. Documenting problems in template form
5. Disseminating templates to community of solution developers (academia, industry, government)
6. Validating candidate solution methods
7. Sharing and publishing results
ISDS Technical Conventions Committee: Process

Public Health Agency → Biosurveillance Problem/Need → Conventions Committee

Use Case Template Development → Benchmark Data Set Formation

Surveillance Community (ISDS) → Candidate solution methods

Research Community: academia, industry, government, ...

(courtesy of Jeff Johnson San Diego Health Dept.)
1. Second-stage: evaluating/investigating statistical alerts
   – North Carolina Dept. of Health, NCDETECT
2. Data quality and exploratory analysis
   – Marion County Dept. of Health (Indiana)
   – Seattle-King County Dept. of Health (Washington)
3. Scenario-specific analysis
   – Florida Dept. of Health (special event monitoring)
Questions

• How to get involvement inside, also outside ISDS?
• Can simulated data be part of the data-sharing solution?
  – Approval process for datasets for certain uses?
Additional Use Case Ideas

- Focused anomaly detection
- Alert investigation
- Outbreak tracking
- Use cases involving multiple data types:
  - Antimicrobial drug resistance
  - Severe weather effect surveillance
- Combining multiple data sources
  - Syndromic counts or ratios
  - Environmental measurements
  - Absenteeism rates
  - Over-the-counter product sales