Internet Interfaces: Provider Access To Confidential Patient Information

A Survey of 11 Jurisdictions

Angel Aponte, Amy Metroka (NYC DoHMH)

Alison Chi (MHRA)

Noam Arzt (HLN Consulting LLC)

Contact: aaponte@health.nyc.gov

Presented at:

Immunization Registry Conference

October 28-30, 2002
Philadelphia, PA

Citywide Immunization Registry

NYC Health

Objectives

- Discuss results of the privacy and confidentiality survey sent to the 27 Web-enabled Immunization Registries on the CDC list
- Convey the lessons learned and implications to NYC's Online Immunization Registry

Background

- NYC CIR Web Online Registry launch: 6/02
- Privacy & Confidentiality Concerns Raised
  - Detection & Prevention of Inappropriate use
  - Definition of Searching/Fishing/Foraging
  - NYC CIR Search Criteria

Method

- Survey developed and sent via E-mail to the 27 Immunization Registries on the CDC list of Web-enabled Programs
- 11 responses collected in E-mail and phone conversations

Survey Questions

- Do your Web-enabled systems allow “fishing?”
- Why do you allow a healthcare provider to make multiple searches (“fish”) for the same patient?
- Do you employ other communications tools, such as a customer service phone number or E-mail into your staff, to assist the provider in finding a patient’s immunization record?

Survey Questions (cont'd)

- What solutions do you employ to view provider search behavior? Do you use any means to detect potentially suspicious searches?
- What is your minimum search criteria (and optional search criteria)?
- What patient information do you give the healthcare provider?
- Do your systems differentiate between a provider, nurse, office manager, etc?

Results: Do you allow "fishing?" Why allow fishing?

- All responding registries allow multiple consecutive searches for the same patient
- All respondents want to maximize use and value of Web Registry application
- Respondents have state laws and confidentiality agreements with providers and report that that preventing "fishing" defeats purpose of a Web Registry

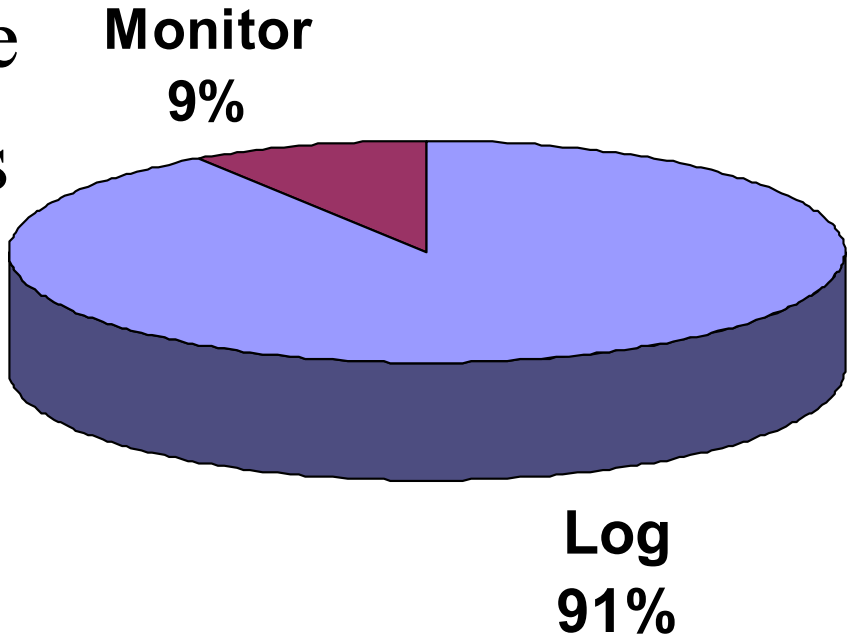
Results: Customer service number or E-mail?

- 10 Registries provide direct customer service

- 1 Registry does not (but has flexible provider searches; high ease-of-use, low support)

Results: How to detect inappropriate searches?

- 10 Registries log Web Registry usage
- 1 Registry monitors registry usage and will add logging soon



Discussion: What do most respondents log?

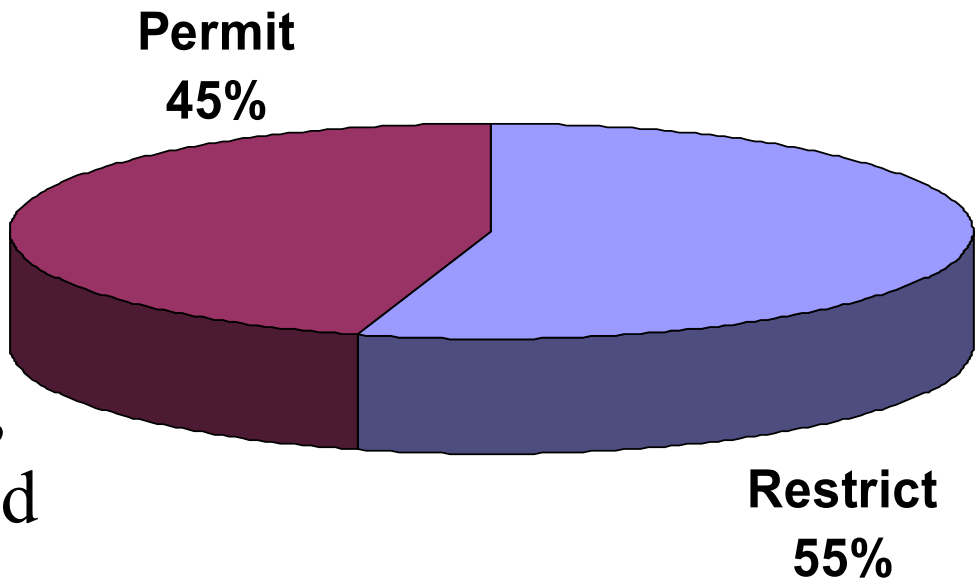
- Entry/exit
- Search activity
- Successful and failed searches
- Record access/Information disseminated
- Information added
- Granularity: user, facility, aggregates, associate date & time
- Why not log everything?

Discussion: Logging (lessons learned in NYC)?

- Goal: Analyze Web usage data (e.g. successful and failed searches) and gather statistics
- Granularity: User ID, facility, & aggregates
- Identify failed search outliers
- Requirement: Use Database for logging
- Pitfall: Flat files make analysis impossible

Results: What are your minimum and optional search criteria?

- 6 Registries are "restrictive." Exact match on 3+ fields
- 5 Registries are "permissive." Flexible/fuzzy match, partial fields, excluded fields



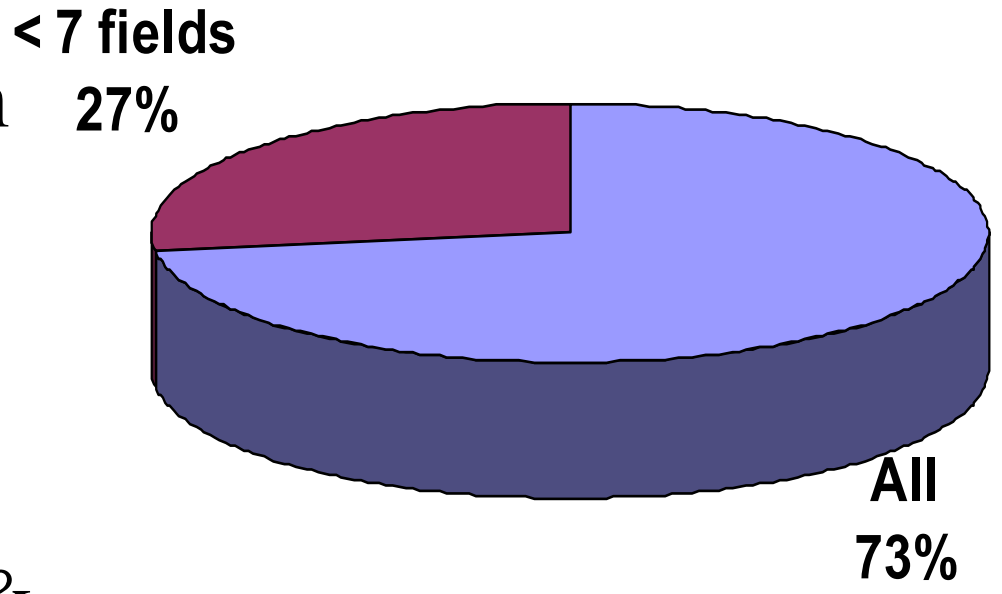
Citywide Immunization Registry

Discussion: Restrictive vs. Permissive Searches

- Tradeoff: Confidentiality/Usability?
- Registries want high application value and use
- Restrictions generally reflect jurisdictional privacy/confidentiality laws and policies
- Goal: Help provider find patient

Results: What patient information is disseminated to providers?

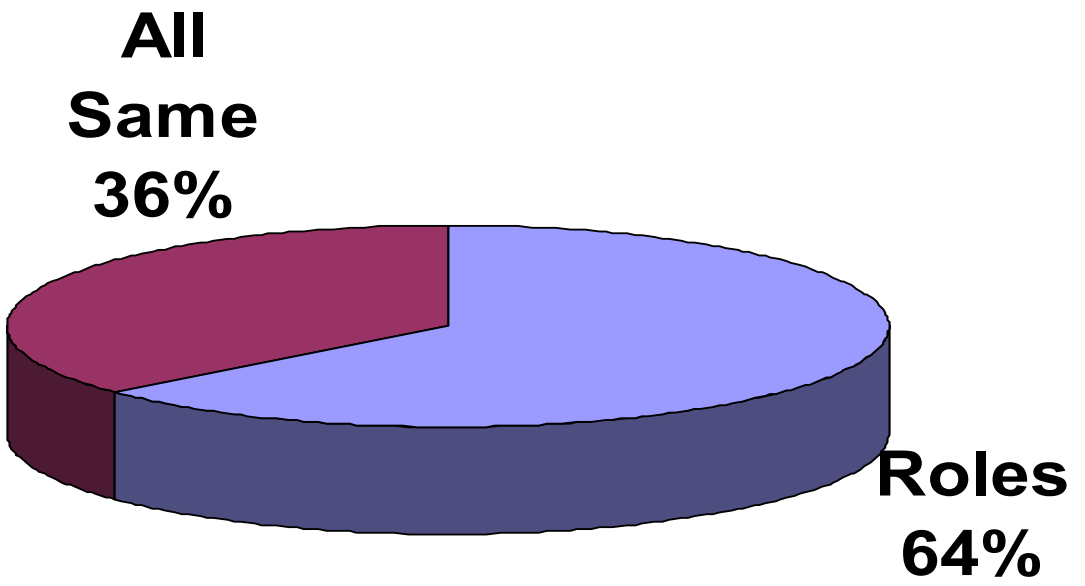
- 8 Registries disseminate all patient information
- 3 Registries disseminate less than 7 fields
- Varies by jurisdiction (laws & policies)



Citywide Immunization Registry

Results: Does your Web registry differentiate user authorization levels?

- 7 Registries use role or privilege-based authorization
- 4 Registries do not



Discussion: Role of authorization in permissive searches and information disseminated?

- Varies by jurisdiction (laws, policies, practices, and technical solutions)
- Authorization often plays role, depending on the user's category
- Goal: Maximize usability, privacy, and confidentiality

Survey Implications: NYC Online Registry Policy Changes

- Planned:
  - Enhanced accounting and analysis of Online Registry use
  - Outreach to failed search outliers by user
  - Addition of role or privilege-based authorization features
- Under Consideration:
  - Disseminating more information
  - Allowing more flexible searches

Summary

- Very Common Web registry privacy practices
  - Allow “fishing”
  - Help Desk
  - Account for usage
  - Authorization levels
- Somewhat common Web registry practices
  - Flexible searches
  - Disseminate all patient information

Conclusions

- The Web registries surveyed have considered privacy issues and take steps to protect confidential information
- Currently, ease of use takes precedence over privacy protections in Internet enabled Immunization registries

Future Work

- Support claim of tradeoff between usability and privacy protections
- Correlate Web registry usage statistics with search criteria
- Propose standard roles & authorization
- Propose standard search flexibility and dissemination of confidential information based on role & authorization