

## Quantitative survey for informatics needs assessment

Final survey instrument—2009-11-16

### Demographics

- 1.1 Thank you for agreeing to take part in the National Association of County and City Health Officials (NACCHO) informatics needs assessment. Your answers will guarantee that an LHD voice is heard in the national discussion about health information technology. Raising the profile of LHD informatics needs nationally ensures that you and other LHDs will be included when funding and resource decisions are made.

Informatics does not always require expensive technology, but is any means of collecting, storing, and analyzing data relevant to public health practice. Essentially informatics can be considered a chief component of knowledge management and public health decision support processes.

Even if you do not feel that your LHD does not have a lot to do with informatics please complete the survey. Your answers will help NACCHO identify areas in which to develop tools, resources and investment.

The survey will take between 15 and 40 minutes to complete, depending on the level of informatics at your LHD. You can save your progress and come back at a later time, or complete some parts and have other staff members complete the others.

- 1.2 What is the name of your local health department (LHD)?
- 1.3 In what state is your local health department located?
- 1.4 Please enter the name(s) and position(s) of the person(s) completing this survey. (space for multiple people)

### Physical infrastructure

- 2.1 Does your local health department (LHD) have access to high-speed internet (broadband, which is defined by the FCC as download speeds of at least 768 kbits/s)?
- Yes, available to all programs/services
  - Yes, available to some programs/services
  - No
  - Don't know
- 2.2 Who controls the following for your LHD? If control is shared, check all that apply.

	Your LHD (within each department or program)	Your LHD (through a central department)	City/county IT department	State health agency	Someone else (specify who)
Hardware allocation and acquisition					
Software selection					
Software support					
Data management					
IT system security					

2.3 Do you feel that the staff members in your LHD have an adequate level of physical infrastructure to do their jobs? Physical infrastructure may include computers, cell phones, transportation, office space, storage areas, etc.

- All staff
- Most staff
- A few staff
- No staff
- Don't know

2.4 What additional infrastructure is required? *[Open ended]*

### Skills and capacity available to the organization

3.1 Definitions for some of the terms used below

- Geographic information systems: Software used to perform spatial analysis and produce visualizations such as maps.
- Business process analysis (BPA): A systematic process by which an LHD maps out the tasks performed to meet specific public health objectives.
- Business process redesign (BPR): Rethinking the way tasks are carried out to increase their efficiency and effectiveness.
- Requirements for information system development: Once BPA and BPR have been completed, LHDs can describe what an information system must be able to do to support those tasks.
- Super user: A person who provides low-level technical support to other staff, and perhaps has the ability to modify/customize an information system.

3.2 Please indicate who does the following for your LHD (check all that apply)?

	Staff within your LHD (within each department)	Staff in your LHD (through a central department)	Staff in another government department in your jurisdiction	The state health department	An affiliated university or community college	Contractors or consultants	Other (please specify)	Not conducted at LHD
Extracts data from information systems (e.g. through reports)								
Uses and interprets quantitative data								
Uses and interprets qualitative data								
Uses statistical or other analytical software								
Uses geographic information systems								
Conducts business process analysis and redesign								
Develops requirements for informatics system development								
Provides project management								
Acts as 'super users' for your information systems								
Maintains (modifies content) a web site								

### Public health informatics workforce development needs

4.1 Please identify the top three areas for GENERAL staff development and rank them from 1 (top priority) to 3: Basic computing skills

- Basic computing skills
- Using word processing, spreadsheet and presentation software (e.g. Microsoft Office)

- Project management
- Using and interpreting quantitative data
- Using and interpreting qualitative data
- Using statistical or other analytical software
- Designing and running reports from information systems
- Using geographical information systems
- Conducting business process analysis and redesign
- Developing requirements for informatics system development
- Acting as a 'super user' for your informatics systems
- Maintaining a web site
- Using clinical data to improve quality of care
- Other (please specify)

4.2 Please identify the top three areas for IT/INFORMATICS staff development and rank them from 1 (top priority) to 3. If your LHD does not have separate IT or informatics staff please leave this question blank.

- Basic computing skills
- Using word processing, spreadsheet and presentation software (e.g. Microsoft Office)
- Project management
- Using and interpreting quantitative data
- Using and interpreting qualitative data
- Using statistical or other analytical software
- Designing and running reports from information systems
- Using geographical information systems
- Conducting business process analysis and redesign
- Developing requirements for informatics system development
- Acting as a 'super user' for your informatics systems
- Maintaining a web site
- Using clinical data to improve quality of care
- Other (please specify)

4.3 What are some of the barriers to public health informatics workforce training that your LHD has encountered in the last 12 months (check all that apply)?

- Lack of knowledge about available course
- Cost of training
- Restrictions on spending grant funding
- Distance to the training

- Time away from other duties
- Lack of staff interest
- Not a priority for the agency
- Other trainings took precedence
- LHD does not provide training/workforce development support
- Choose to rely on external resources
- Other (please specify)

### Electronic Health Records

5.1 Does your LHD provide either of the following types of clinical healthcare services (check all that apply)?

- Primary care
- Dentistry
- Neither *[respondents will skip ahead to next subsection]*

*[All the questions below will have space for primary care and dentistry, depending on the answer above]*

5.2 Does your LHD and/or affiliated clinic currently use an electronic practice management system (for tasks such as electronic billing, appointments etc.)?

- Yes *[skip to 5.4]*
- No
- Don't know

5.3 Does your LHD expect to implement an electronic practice management system?

- No plans to implement a system
- Within the next 6 months
- Between 6 and 12 months from now
- Between 1 and 2 years from now
- More than 2 years from now

5.4 Does your LHD use an electronic health record (for tasks not covered by a practice management system, such as clinical notes, e-prescribing, laboratory results and imaging)?

- Yes, all electronic *[skip to 5.10]*
- Yes, part electronic, part paper *[skip to 5.10]*
- No, only paper
- Don't know *[skip to 5.10]*

5.5 Does your LHD plan to implement an electronic health record?

- Yes
- No *[skip to 5.10 or 6.1, depending on the answer to 5.4]*
- Don't know

5.6 What stage of development are you at (check the most appropriate)?

- Planning
- Seeking funds
- Request for proposal
- Vendor selection
- Implementation

5.7 What domains will your electronic health record cover (check all that apply)?

- Patient demographics
- Computerized orders for prescriptions
- Computerized orders for tests
- Electronic receipt of laboratory tests
- Imaging results
- Clinical notes
- Clinical decision support
- Public health reporting

5.8 When do you expect your electronic health record to be implemented?

- Within the next 6 months
- Between 6 and 12 months from now
- More than a year from now

5.9 How would you characterize the electronic health record's development?

- Out of the box solution
- Out of the box with some customization
- Completely new development (also called bespoke development)
- Don't know

5.10 How long has your LHD been using its EHR?

- Fewer than 6 months
- Between 6 and 12 months
- More than a year

5.11 What domains does your electronic health record cover (check all that apply)?

- Patient demographics
- Computerized orders for prescriptions
- Computerized orders for tests
- Electronic receipt of laboratory tests
- Imaging results
- Clinical notes
- Clinical decision support
- Public health reporting

5.12 What is the name of the vendor that supplied your electronic health record (enter 'Don't know' if you are not sure)?

- *[Text box]*

5.13 How would you characterize the electronic health record's development?

- Out of the box solution
- Out of the box with some customization
- Completely new development (also called bespoke development)
- Don't know

5.14 Is the electronic health record certified by the Certification Commission for Health Information Technology?

- Yes
- No
- Don't know

5.15 What are some of the challenges you face now that you have implemented the EHR (check all that apply)?

- Workforce training
- Ongoing maintenance costs
- Privacy and security of health data
- Managing staff expectations
- Reporting on the data
- Interoperability

### *Surveillance system*

6.1 Does your LHD use an electronic syndromic surveillance system (regardless of whether the LHD or some other entity (e.g., the state health department) developed it)?

- Yes
- No *[skip to 7.1]*



Water wells (licensing and/or testing)							
Lead testing							
Environmental health tracking							

*[If the respondent indicates that the activity is not conducted at the LHD that option will not carry through to 7.2 and 7.3]*

7.2 For each of the following activities, please indicate how data are STORED/ACCESSED (check all that apply):

Activity	Paper records	Standalone spreadsheet or database	Local data warehouse	In a web-based database	A shared database (other than web)	Other	Activity not conducted by the LHD
Immunization records							
Individual reportable diseases							
Syndromic surveillance							
Outbreak management							
Vital records							
Laboratory reporting							
Home visits by public health nurses							
Restaurant inspections							
Water wells (licensing and/or testing)							
Lead testing							
Environmental health tracking							

7.3 For each of the following activities, please indicate how data are SENT/EXCHANGED (check all that apply):

Activity	Mailed	Faxed	Emailed	Others have access to the database (either locally or through the web)	Through a health information exchange	Other	Activity not conducted by the LHD
Health alerts							
Immunization records							
Individual reportable diseases							
Syndromic surveillance							
Outbreak management							

Vital records							
Home visits by public health nurses							
Laboratory reporting							
Restaurant inspections							
Water wells (licensing and/or testing)							
Lead testing							
Environmental health tracking							

7.4 Does your LHD use standardized data fields, terminology and data definitions?

- Yes, all systems do
- Yes, some systems do
- No
- Don't know

7.5 If "Yes, all systems do" or "Yes, some systems do": What sort of standards does your LHD use (check all that apply)?

- Internal to the LHD
- Local standards
- State standards
- National standards

7.6 Are your LHD's informatics systems compatible enough with each other to allow the electronic exchange of data?

- All can share data
- Some can share data
- None can share data
- Don't know

*Other barriers to developing systems*

8.1 Please rank the top 3 barriers that exists/existed to your LHD implementing informatics systems (rank from 1 (biggest barrier) to 3: *[The answers will appear in a random order]*)

	Rank
No knowledge about the systems available	
Little support from senior leadership	
Little support from governing body (e.g. board of health)	
No champion/initiator in the LHD	

Little support from staff	
Insufficient funding	
No-one with the technical skills to support the system	
Lack of project management staff to manage project implementation	
Not perceived as a need for the LHD	
Other (please fill in)	

### *Stimulus funding*

9.1 The American Recovery and Reinvestment Act (ARRA, also call the stimulus bill) contains large amounts of new funding for health information technology and infrastructure that will support this technology (e.g., grants to increase broadband coverage). Most of the health information technology provisions are bundled into what is called the Health Information Technology for Economic and Clinical Health (HITECH) Act.

9.2 Does your LHD plan to seek out HIT funds or other assistance from the ARRA?

- Yes *[skip to 9.4]*
- No *[answer 9.3 then skip 9.4]*
- Don't know

9.3 Please list the reasons for not intending to seek stimulus funds for health information technology (check all that apply):

- Not currently aware of the opportunities
- Do not think LHD qualifies for funding/assistance
- Funds/assistance not available at local level
- Other (please specify)

9.4 What sort of funding/assistance has your LHD pursued (or will pursue in the future)?

- Medicare bonus payments for adopting certified EHRs
- Medicaid bonus payments for adopting certified EHRs
- A portion of the state HIE grants
- Training or technical assistance at a regional extension center
- Broadband grants
- Health Resources and Systems Administration (HRSA) funding for federally qualified health centers
- Other (please specify)

9.5 Providers that wish to receive bonus Medicaid or Medicare payments for adopting electronic health records will be required to demonstrate "meaningful use" of the system from 2011 onwards. Though not finalized, meaningful use will include exchanging data with public health authorities, both state and local. Data exchanged will relate to immunizations, laboratory reporting and surveillance. This exchange of data will take place regardless of whether or not an LHD provides primary care services.

9.6 Does your LHD have in place a plan for working with other providers in your jurisdiction to achieve meaningful use?

- Yes, already working with others
- Yes, plan to work with others
- No *[skip to 9.8]*
- Don't know

9.7 With whom are you working/will you work (check all that apply)?

- Hospitals
- Primary care providers
- Laboratories
- State health departments
- Health information exchanges (or regional health information organizations)
- Others (please specify)

9.8 Another component of the HITECH Act is over \$500 million in grants to states to implement health information exchanges. States are required to produce operational and strategic plans that set out how they will create this infrastructure.

9.9 Does your LHD have plans to engage with the state health department on how to implement the HIE grants?

- Yes, already working with the state health department
- Yes, plan to work with the state health department
- No
- Don't know

9.10 Please list the reasons for not engaging with the state health department on the HIE grants:

- Not aware of the grants
- No opportunities provided by the state
- Not a priority for the LHD
- Other (please specify)

### Health information exchange

10.1 With which of the following entities does your LHD regularly send or receive data electronically (i.e., not by fax or as an email attachment) (check all that apply for entities with which data is currently being exchanged AND those that will be exchanged with within the next 6 months)?

- Other LHDs in the area
- State health departments
- CDC (directly, rather than through the state health department)
- Hospitals



regional health information organizations)										
Other jurisdiction government departments (e.g. human services, public safety agencies)										
Universities										
Distribute surveillance system										

10.3 Is there one or more health information exchange (or regional health information organization) operating in your LHD's jurisdiction?

- Yes
- No
- Don't know

10.4 Is your LHD involved with one or more of the health information exchanges?

- Yes
- No *[skip to 11.1]*
- Don't know

10.5 For the next four questions please answer for the health information exchange that your LHD is most involved with.

10.6 Which option best describes the health information exchanges's technical model (select the most appropriate)?

- Federated model (decentralized system of record management, where patient information is only accessed when needed and clinical data is stored only where it's created)
- Centralized model (all patient information is held in a single data repository)
- Co-op model (usually consists of at least one rural hospital that lacks monetary or technological resources sharing overhead and technological resources with other hospitals)
- Single EHR used by all stakeholders

- Hybrid model
- Not yet defined
- Other (please specify)

10.7 Which option best describes the HIE's business model (select the most appropriate response)?

- Independent for-profit
- Independent not-for-profit
- Formed within host agency or fiscal agent
- Not yet defined
- Other (please specify)

10.8 Which organization(s) initiated planning for the health information exchange(s) in your community (select all that apply)?

- Hospital system(s)
- Physician group(s)
- Health plan(s)
- Laboratory (ies)
- State health agency (ies)
- Your local health department
- Other local health departments
- Community organization(s)
- University (ies)
- Foundation(s)
- Other (please specify)

10.9 Which organization(s) leads the health information exchange(s) in your community (select more than one if there are multiple organizations leading the HIE)?

- Hospital system(s)
- Physician group(s)
- Health plan(s)
- Laboratory (ies)
- State health agency (ies)
- Your local health department
- Other local health departments
- Community organization(s)
- University (ies)
- Foundation(s)
- Other (please specify)

### Knowledge management

11.1 How does your LHD use the information it collects from each information system (check all that apply)?

	Electronic health records	Surveillance systems	Immunization systems	Environmental health systems	Geographic information systems	Health information exchange
For immediate public health response						
To identify public health issues that may arise in the future						
For community health assessments						
To influence policy and decision makers						
To develop new programs and grant applications						
To evaluate existing programs or responses						
Other (please specify)						
Not applicable						

11.2 What sort of knowledge management displays does your LHD use (check all that apply)?

- Web-based dashboards
- Local dashboard
- Regular data reports from the informatics system
- Spreadsheets and charts
- Other (please explain)
- None of these

### Web 2.0

12.1 Does your LHD make use of any of the following Web 2.0 technologies (check all that apply)?

- Blogs

- Facebook
- Myspace
- Twitter
- YouTube
- SlideShare
- Others (please specify)
- Don't know

12.2 What are the reasons your LHD uses this technology (check all that apply)?

- To distribute information during public health emergencies (e.g. H1N1)
- To distribute information on a routine basis
- To gather feedback from the community on public health issues
- To reach particular populations that would otherwise be missed
- Others (please specify)
- None of these

### General

13.1 Would you like to identify any additional informatics needs your LHD has?

- *[Open text]*

13.2 Do you have any other comments you would like to make about local public health informatics?

- *[Open text]*

### Confirmation of submission