Characteristics of Local Health Departments Associated with Their Implementation of Electronic Health Records and Other Informatics System

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Characterizing the Informatics Capacities and Needs of Local Health Departments in a Post-Affordable Care Act Landscape

*Presentation at Keeneland, 2015*

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Overview for today’s talk

• Explore variation in the use of data and information systems in Local Health Departments

• Characterize barriers and facilitators to implementation

• Describe practitioner perspectives on the future of informatics
Background

• Tremendous heterogeneity exists in LHDs’ informatics capacities and uses in the United States
  – Impacts of federalism, program-specific funding streams

• Previous presentation focused on a cross-sectional view of the state of informatics in LHDs

• This presentation will explore certain themes more deeply
  – Variation in systems
  – Barriers and challenges
  – Information systems of the future
Methods

• Key informant interview of 50 LHD staff
  – Purposive variation selection based on geography and informatics capacities as identified in the NACCHO Profile

• Hour-long semi-structured interviews were recorded, transcribed, verified, and coded thematically and independently by two researchers
  – Interviews were iteratively coded and recoded to maximize inter-coder consistency

• Data were managed and analyzed in nVivo 10
Results

- With exception of communicable disease surveillance, very little consistency in purpose or type of information systems
  - Smaller jurisdictions frequently mentioned their assessment/surveillance being Excel or sometimes Access documents (unless supported by various disease-specific systems)
  - More sophisticated systems include web-based or cloud access
  - Siloed programs have generated a multitude of systems that are not interoperable
  - Electronic Health Records are the most common, sophisticated systems in use by health departments of varying sizes
LHDs are responsible for a variety of systems

Examples include:

- BRFSS
- Communicable disease data
- Data collected from grant funded studies
- Data from health clinics
- Data on health services
- Emergency preparedness
- Environmental information
- Food safety and outbreaks
- Health equity and health disparities
- HIV AIDS Ryan White
- Hospitalization data systems
- Land Use and Planning
- MCH information
- Mental health information system
- Online health impact assessment
- Patient characteristics data
- Provider notification
- Qualitative data
- Registries
- School Absenteeism
- STI or STD information systems
- Vital records
- WIC
- YRBS
Challenge of interoperability

“The first problem is that because they’re so separate, our Access database I think is antiquated, I don’t think it’s used hardly at all. We’re using it to just to count out numbers to give to the Board of Health… I think the better database pulls out data directly from the State Department of Public Health and a lot of the towns and districts of health have switched over and they’re withdrawing information from that database. But again because we – in this state each town or district, we are so small in some ways that we are like a little silo and we’re not really connected to other surrounding communities.”
Electronic Health Records: Implementation Status

• Adoption of EHRs for clinical purposes was low yet encouraging:
  – No activity (24)
  – Have implemented (16)
    • Almost implemented (3)
  – Have investigated/Planning to implement (6).
Challenges/barriers to implementation (if implemented)

- Cost or financial resources (10)
- Resistance to change (9)
- Interoperability (7)
- IT related issues during implementation (5)
- Lack of training for usefulness and use of EHRS (5)
- Ability to use the system (4)
- Champion not available (2)
- Lack of staff (2)
- Partners do not have electronic data (2)
- Privacy concerns (2)
- Vendor Solutions not appropriate (2)
- Hard to implement for all programs (1)
- Internet not reliable (1)
Challenges/barriers to implementation (if implemented)

Examples:

- “I think for most of the vendors if we had an infinite amount of money that we devote to them, they could design something that would be flexible enough for our needs. But without having infinite amount of money …”

- “Just the lack of funding. People wanted things and then they change their mind and wanted more and we didn't have money to add the additional functionality. We have to wait for a grant cycle and make sure it works within what a granter wants to do. So we weren't able to get something that do e-clinic works that cost million of dollars, we had to get a much less robust system because public health doesn't have the funding that a hospital or provider does and public health …didn't get Meaningful Use money that came out of the ARRA grant.”
Challenges/barriers to implementation (if implemented)

Examples:

- “**Training** is generally free, but that could be a barrier also, making sure people are able to get to training.”
- “One [barrier] was basically **staff hesitancy** to do it and the work load involved with getting it setup and building some of the levels.”
- “Well, internally our barriers have been we had a staff of public health nurses who have been here for 20 years, so that has been a challenge for them to use electronic health records.”
Why no implementation

Reason for not implementing (30)

- Money or funding (13)
- No clinical services (11)
- Staff capacity (7)
- Priority is low (4)
- Resistance to or fear of change (3)
Why no implementation (2)

Examples:

• “So definitely **money**, funding and I would say basically I think our leadership had to understand how to incorporate an electronic health record in the public health system.”

• “It mostly has to do with, you know, the **cost** of it and how much it would be to implement the program, training, and that sort of thing.”

• **Low priority**: “I think my speculation would be it has just taken a backseat as far as priorities go and it just hasn't reached the top level of priorities here. There has been other things that have usurped the priorities I think that would probably be the best explanation I could give.”
Why no implementation (3)

Examples:

• “The second [reason] to me is that capacity is low ... we have two IT [staff] in my department and fortunately, I have one IT – healthcare IT certified. I wish both of them can get certified, ...and it is harder for me to require them to get certified. ... So the challenge: shortage of staff, shortage of funding to do this.”

For state governed LHDs:

• “We have no control over the decision. We are state entity. So, those decisions are made at the state level. All of us would love to have electronic health records absolutely, but we have no influence or say or in any involvement really in those decisions, which will be made at the state level.”
Impact of the ACA on informatics in LHDs

- No effect (29)
- Motivating EHR use and data exchange (14)
- Doing more on pop health (8)
- Seeking third party payments more (3)
- Training staff for ACA Changes (3)
- Faster Medicaid Eligibility (2)
- Accreditation Requirement (1)
ACA

• “What the Affordable Care Act has done for us with regard to informatics and capacity is we have found that we are required to do more and to use our information more so than we have in the past. We tried to be innovative and tried to do it before. But now instead of it sort of being optional and you know if you did it you were considered like a superstar, if not you know that was okay. That’s no longer the case. And so some of the things that we were doing that were optional are now expected.”
ACA

• “We are not a huge health department, we haven't seen a push or have access to anything to upgrade our systems at all, health information systems and I don’t see that happening anytime in the future for us. And frankly I live in a community that would refuse any dollars associated with the Affordable Care Act…It's just a very conservative – it might be one of the most conservative counties in the country, any sort of grant dollars or any energy or anything spent around the Affordable Care Act is denied by our board of health and further by our county board, it's just not – they all think it's going to be repealed, so any effort to implement anything is [not happening.]”

• “One of the biggest frustrations for public health and the Affordable Care Act is very little money came to public health. It went to community health centers and hospitals and stuff but it didn’t come to public health. So at this point it feels to at least [state] health officers eventually have a lot of new direction to take on and a lot of new tasks that perhaps we need to be doing that we haven’t traditionally done in public health but no money to do it with. It’s pretty frustrating. It’s been pretty frustrating I have to tell you.”
Major barriers to doing more with informatics in LHDs

- Staff training/capacity (33)
- Money (31)
- Dependent on state (13)
- Time (6)
- Small size makes estimates inherently hard (6)
- HIPAA (6)
- Infrastructure (5)

- Data are bad or unavailable (4)
- Leadership and vision (4)
- Bad relationship with IT and turf battles (3)
- Lack of collaboration between state and local agencies (3)
- More requirements (2)
- Lack of vendors (1)
- Lack of collaboration between hospitals and public health agencies (1)
- Resistance to change (1)
Avoidable obstacles?

• “They are all scared of HIPAA and if they believe that when I am asking for HIPAA exempt for public health they will give it to me and it's easier to convince them that if it's a communicable disease. They won't give me patient specific information about congestive heart failure or diabetes. They will give me data in aggregate, like we treated, we hospitalized 2000 diabetics over the last year, they won't give me patient specific records on anything except communicable diseases.

• Interviewer: I see. Aren’t you HIPAA exempt as a public health worker?

• Yes, but I usually have to pull up the law [laughs] and they believe it for communicable disease and—they don’t believe it for diabetes, and things like that, why would you need to know about John Doe’s treatment for diabetes and stuff?”
Discussion

• HITECH and ACA are pushing EHRs forward
  – Experience of LHDs is myriad and varied, not at all universally similar

• Smaller LHDs face financial challenges, but also questions of utility of new systems

• Confluence of money and staff are major barriers
  – Data sharing practices and interest of private providers also huge barrier
Questions?