Public Health PBRN
Monthly Virtual Meeting
July 18, 2013
Research-in-Progress Presentation by
Georgia PBRN
Health Informatics Capacity and Meaningful Use Readiness of Georgia’s Health
Districts: Preliminary Findings
Gulzar H. Shah, William Livingood and Russell Toal

If you are dialed into the conference line on the telephone 877-394-0659 code 7754838037#, please turn off your computer speakers. Please mute your telephone until the Q&A. If your telephone does not have a mute button, press *6 to mute and #6 to unmute.
Outline

• Descriptive analysis of DHDs’ Health Informatics Capacity and Meaningful Use Readiness:
  o Meaningful Use certified EHRs
    o Barriers to such use
  o DHD involvement with development of Health Information Exchange (HIE)
  o Processes to make health informatics a strategic priority
  o Use of information systems
  o Involvement with Regional Extension Center (REC)
  o Resource Needs
Gaps in Evidence

- Yasnoff et al. (2000) defined public health informatics as “the systematic application of information and computer science and technology to public health practice, research, and learning.”
- The adoption of IT/IS has increasingly become central for diverse public health activities.
  - The affective application of IT/IS has the power to transform traditional public health activities, like disease surveillance.
Gaps in Evidence

• A few studies on health informatics have been conducted at national level, with the study design not allowing GA-specific assessment of health informatics.

• One GA-specific study by the Georgia Department of Community Health on health districts assessed the DHDs’ readiness to participate in HIE, but many other aspects of informatics were not assessed.

• This study compliments the findings from that recent study.
Georgia

- 159 counties
- Population range: 1,863 – 1,014,932

- **Green highlight - Districts participating in GA PH PBRN studies**
Data Sources

- GA PBRN conducted a survey of all health districts in GA.
  - Brief instrument administered to all district health departments (DHD) using web-based survey software—Qualtrics
  
  - An email was sent with request to identify staff involved in use of information systems, IT development, or data report/use.
  
  - Survey administered to all identified staff, with request to forward the link to additional relevant staff

- Two case studies were also conducted (not reported here)
Results
Characteristics of Respondents

- Total of 36 individuals responded to the survey
- 30 useable responses received
- 26 responded to most questions
- 13 out of 18 District Health Departments (DHD)
- Survey completed by multiple staff per DHD

Position of Respondents:
- 9 District Health Directors
- 6 Financial or other Non-Clinical Program Directors
- 8 IT Directors, Supervisors, or Managers
- 7 Public Health Nurses or Clinical/Disease Coordinators
Main findings

Good news/bad news situation re EHRs
- Only a few GA Health Districts are currently able to make use of Meaningful Use-certified EHRs
- Future ability for use is fairly promising: 1 in 3 will have ability to fully utilize Meaningful Use-certified EHRs

Health districts played active role in shaping the statewide information systems
- More than half of the respondents played a role or were involved in development of state or regional EHRs
- In GA county/local health departments are all part of a DHD
Main findings

Informatics as Strategic Priority:
• Respondents reported having concrete processes in place to make health informatics a strategic priority:
  o Assigned dedicated resources
  o Made it explicit part of the strategic plan
  o Part of the QI efforts
  o Part of accreditation efforts

Use of Information Systems
• Level of use of information systems was very encouraging, (clinical records management; accounting and finance; billing; HRM; and QI)

Barriers
• Lack of funding and staff
• Uncertainty about Meaningful Use requirements

Resource needs
• Financial, technical, infrastructural, workforce
Is your health department currently able to submit or receive data through Meaningful Use-certified electronic health record system? (N=22; Missing =8)
Future Ability for Meaningful Use

Percent indicating they anticipate their DHD will be able to fully utilize a Meaningful Use-certified electronic health record system (N=22; Missing =8)

- Don’t know our current readiness (e.g., it is vendor dependent) 31.8%
- Depends on the readiness of source systems 13.6%
- No 9.1%
- Yes, in 24 months or at a later time 18.2%
- Yes, in 12 to 23 months 13.6%
- Yes, in less than 12 months 13.6%
Barriers for DHDs to submit or receive electronic health data required for Meaningful Use?

- GA health districts did not offer a lot of information on barriers to submit or receive electronic health data required for Meaningful Use.
- We anticipated that an instrument with pre-constructed response categories might provide persuasion.
  - The pattern of response did not support such anticipation.
## Barriers or reasons

<table>
<thead>
<tr>
<th>Barriers and Reasons</th>
<th>No</th>
<th>Yes</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Do not have an EHR or other system to receive electronic information</td>
<td>80</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>b. Lack funding to procure appropriate technologies</td>
<td>73.3</td>
<td>6.7</td>
<td>20</td>
</tr>
<tr>
<td>c. Require technical assistance</td>
<td>80</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>d. Insufficient staff support</td>
<td>80</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>e. Uncertain about Meaningful Use requirements</td>
<td>80</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>f. Other</td>
<td>80</td>
<td>0</td>
<td>20</td>
</tr>
</tbody>
</table>

Percent of respondents with barriers or reasons the District may not be able to submit or receive electronic health data required for Meaningful Use? (N=30)
Has your health district had any input in the development of Health Information Exchange (HIE)? (N=26)
Health informatics a strategic priority

Describe what processes if any are in place to make health informatics a strategic priority for your district (N=26)
Use of information systems

What are some of the ways in which information systems are used by your district? (N=26)
Barriers to Meaningful Use

What barriers if any are you encountering as you prepare for Meaningful Use? (N=26)

- Lack of funding: 84.6%
- Lack of staff: 53.8%
- Uncertainty about Meaningful Use requirements: 30.8%
- Acceptance of HL7 2.5.1 and 2.3.1 electronic lab results: 15.4%
- Other: 19.2%
Nature of involvement with REC

What has been the nature of your involvement with the Regional Extension Center? (select one best response) (N=26)
Health informatics a strategic priority

<table>
<thead>
<tr>
<th>Title of Respondent</th>
<th>Assigned dedicated resources</th>
<th>Explicit part of District Strategic Plan</th>
<th>Part of District quality improvement efforts</th>
<th>Part of District work and plans towards accreditation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Health Director</td>
<td>14%</td>
<td>0%</td>
<td>57%</td>
<td>29%</td>
<td>43%</td>
</tr>
<tr>
<td>Financial or other Non-Clinical Programs Director</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>IT Director, Supervisor, or Manager</td>
<td>50%</td>
<td>38%</td>
<td>88%</td>
<td>88%</td>
<td>0%</td>
</tr>
<tr>
<td>Public Health Nurse or Clinical/Disease Coordinator</td>
<td>17%</td>
<td>0%</td>
<td>17%</td>
<td>50%</td>
<td>33%</td>
</tr>
<tr>
<td>All Respondents</td>
<td>27%</td>
<td>15%</td>
<td>50%</td>
<td>50%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Describe what processes if any are in place to make health informatics a strategic priority for your district. (select all that apply) (N=26)
## Ways in which information systems are used

<table>
<thead>
<tr>
<th>Title of the respondent revised</th>
<th>Clinical records management</th>
<th>Accounting and finance</th>
<th>Billing</th>
<th>Human resources management</th>
<th>Programmatic reporting</th>
<th>Program improvement and quality measurement</th>
<th>Other (please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Health Director</td>
<td>57%</td>
<td>86%</td>
<td>86%</td>
<td>57%</td>
<td>71%</td>
<td>29%</td>
<td>0%</td>
</tr>
<tr>
<td>Financial or other Non-Clinical Programs Director</td>
<td>60%</td>
<td>80%</td>
<td>60%</td>
<td>60%</td>
<td>80%</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>IT Director, Supervisor, or Manager</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>75%</td>
<td>75%</td>
<td>75%</td>
<td>0%</td>
</tr>
<tr>
<td>Public Health Nurse or Clinical/Disease Coordinator</td>
<td>50%</td>
<td>83%</td>
<td>50%</td>
<td>67%</td>
<td>50%</td>
<td>33%</td>
<td>17%</td>
</tr>
<tr>
<td>Total</td>
<td>69%</td>
<td>88%</td>
<td>77%</td>
<td>65%</td>
<td>69%</td>
<td>46%</td>
<td>8%</td>
</tr>
</tbody>
</table>

### What are some of the ways in which information systems are used by your district? (please check all that apply) (N=26)
Open Ended Question

What needs you have which would enable your health district to fully participate in Meaningful Use or health IT in general?
Lack of funding/staff

- Lack of staffing or funding for training was the highest level of concern, with 16 DHD reporting this response.
- Eight DHD staff reported lack of funding to support the upgrades for software, hardware, and the development of interface or IT infrastructure.
  - One person indicated concerns over the infrastructure challenges.
Lack of funding/staff

- Twelve reported requiring funding for implementation
  - A couple of them noted that systems are “incredibly expensive.”
- **Time**: extremely time consuming
- **Staff**: Analytics which are needed for different purposes: operational dashboards, real-time (or near real-time) quality reporting and automated surveillance.
• **Interface Development** at State Lab Level,

• **Centralized data repository** for secure storage and access of the records by all partners.

• Developing **data sharing agreements** with community partners who have electronic records,

• Means of **sharing data** with other provider electronically.
• **Increased bandwidth**: Bandwidth, Increase bandwidth in support of current infrastructure

• **Technical expertise**: coding expertise and support. when the IT system is down, so are the records

• Long term plan to implement, evidence of practical relevance, supremely frustrating

• Lack of “knowledge” about EMR
(5)

- **Technical** coding and support and understanding of how the system can be accessed with it malfunctions.
Limitations

• Small numbers pose limits on analysis options
• Multiple respondents from each DHD
• Response rate (13 out of 18 DHDs)
• Many DHDs had single respondent; perspective of many other relevant staff was not captured
• This may not be representative of situation in other states that are structured differently
Contact Information

Gulzar Shah, PhD, MStat, MS – gshah@georgiasouthern.edu

Additional Contacts for GA PBRN:

William C. Livingood, PhD, wclivingood@georgiasouthern.edu
Dayna Alexander, MSPH, CHES – da01280@georgiasouthern.edu
Angie Peden, MPH – apeden@georgiasouthern.edu
Nandi Marshall, MPH, DrPH, CHES – nmarshall@georgiasouthern.edu
Lynn Woodhouse, EdD, MPH – lwoodhouse@georgiasouthern.edu
Other Meeting Agenda Items

PBRN Research Updates
• DACS Grantees
• Academy Health ARM and IG
• NACCHO

Dissemination Opportunities
• PRC D&I
• Frontiers in PHSSR
• REACT

Funding Opportunities
• Quick Strikes
• Mentored Research Scientist
Grants Administration Update: Reports and Products

Please continue to route all questions on Grant Budgeting, Reporting, and Administration to the Public Health PBRN Coordinating Center.

Please remember to submit any reports and products to the Coordinating Center for approval before sending to RWJF.

Send to PublicHealthPBRN@uky.edu; after approval send to grantreports@rwjf.org

RWJF guidelines for annual, final narrative reports & bibliography:

RWJF guidelines for financial reports:

RWJF guidelines for electronic submission standards for products and reports
http://www.rwjf.org/content/dam/files/rwjf-web-files/GranteeResources/RWJF_ElectronicSubmissions.pdf
Reminders: Upcoming Meetings and Events

• **PCORI Dissemination and Implementation Roundtable**
  July 29, 2013 9:00 am-5:00 pm ET

• **August 15, 2013: Public Health PBRN Monthly Virtual Meeting:**
  Research-in-progress presentation by the Ohio PBRN
For more information contact:

Glen Mays

glen.mays@uky.edu