

Public Health Professionals' Preparedness and Challenges in Implementing the Certified Electronic Health Records (EHR) for the Meaningful Use (MU) in Georgia- A Comparative Case Study

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INTRODUCTION

- Primary objective - to assess the readiness and challenges of public health professionals in implementing the Certified Electronic Health Records Technology for the MU in Health Districts of Georgia.
- Aim: to observe the status of the public health information systems' installation and subsequent linking of the system with the State Health Department, Eligible Practitioners (EPs), Eligible Hospitals (EHs) and Critical Access Hospitals (CAHs)

METHODS

- Three Georgia Health Districts volunteered to participate in the case studies.
- The case study guiding questions were pretested before conducting the in-depth interviews which were face to face or through telephone.
- These interviews were transcribed and contents were rechecked to reduce overlap and redundancy of codes.
- Collapsed codes were arranged into themes: technical infrastructure and readiness; process readiness and required reporting; and leadership in policy and governance.
- The qualitative software N-Vivo was used to code qualitative data.

RESULTS

Case Study-1 Health District-A	Case Study-2 Health District B	Case Study-3 Health District C
<p>Technical Infrastructure and Readiness</p> <ul style="list-style-type: none"> Visual Health Net V-11 (M&M Inc.) Certified EHR Other solo databases Fear of change Use of different versions and databases The financial inability Users' training The technical support Time 	<p>Technical Infrastructure and Readiness</p> <ul style="list-style-type: none"> Visual Health Net V-10 & 11 (M&M Inc.) Certified EHR Other solo databases Fear of change Use of different versions of the same system The financial inability Users' training The technical support Time 	<p>Technical Infrastructure and Readiness</p> <ul style="list-style-type: none"> AEGIS v 10.3 Not compatible to upgrade Not compatible to become a certified EMR for MU Other solo databases Fear of change The financial inability Users' training The technical support Time
<p>Process Readiness and Required Reporting</p> <ul style="list-style-type: none"> Slow bandwidth, T1 lines Old HL7 Messaging v- 2.3.1 Some system do not have HL7 Firewall + Security + No linkage with the state system, Data is checked for the quality purposes Features lacking- unification of the systems, camera, signature pad, bar code readings 	<p>Process Readiness and Required Reporting</p> <ul style="list-style-type: none"> Slow bandwidth, T1 lines, Broadband, cables Old HL7 Messaging v- 2.3.1 Some system do not have HL7 Firewall + Security + No linkage with the state system, Data is checked for the quality purposes Features lacking- unification of the systems, camera, signature pad, bar code readings 	<p>Process Readiness and Required Reporting</p> <ul style="list-style-type: none"> Slow bandwidth, Old HL7 Messaging v- 2.3.1 some system do not have HL7 Firewall + Security + No linkage with the state system, Data is checked for the quality purposes Features lacking- unification of the systems, camera, signature pad, bar code readings
<p>Leadership, Policy making and Governance</p> <ul style="list-style-type: none"> GRITS- Linked SENDSS- Not linked LAB- not linked Will use reserved funds to upgrade the system, Will use local resources to train the staff 	<p>Leadership, Policy making and Governance</p> <ul style="list-style-type: none"> GRITS- Linked SENDSS- Not linked LAB- not linked Will use reserved funds to upgrade the system, Will use local resources to train the staff 	<p>Leadership, Policy making and Governance</p> <ul style="list-style-type: none"> GRITS- linked SENDSS- Not linked LAB- not linked Do not have money Local resources to train the staff

Cross Case Synthesis

Health District (HD)	Health District A	Health District B	Health District C
Current EHR system, Ryan White HIV/AIDS clinic	Visual Health Net, v. 11 with few public health modules,	Visual Health Net v. 10 with few public health modules, VHS certified v 11 in Ryan White Clinic	AEGIS v.10.3, Care ware in in Ryan White Clinic
Certified	Certified	Certified	Not certified
Funding	Biggest barrier	Biggest barrier	Biggest barrier
Bandwidth	Slow	Slow	Slow
Linkage with State Health System- GRITS	GRITS Interface is developed Data flows directly to GRITS when entered in VHS	GRITS Data flows directly to GRITS when entered in VHS	GRITS Data flows directly to GRITS when entered in VHS
Linkage with State Health System- SendSS	Not linked directly, Data do not flow directly to GRITS when entered in VHS, Login protected by the state, Interface is being developed by the state, Reports are faxed to the state health department	Not linked directly, Data do not flow directly to GRITS when entered into the VHS, Login protected by the state, Interface is being developed by the state, Reports are faxed to the state health department	Not linked directly, Data do not flow directly to GRITS when entered in VHS, Login protected by the state, Interface is being developed by the state, Reports are faxed to the state health department
Linkage with State Health System- Labs	Interface is being developed by the state, District labs enter data into their own system District receives data logging to a common platform	Interface is being developed by the state, District labs enter data into their own system District receives data logging to a common platform	Interface is being developed by the state, District labs enter data into their own system, District receives data logging to a common platform
Tech support	Local IT department	Local IT department	Local IT department
Training	Local IT department Vendor support	Local IT department Vendor support	Local IT department Vendor support
Recent updates after Dec 2013	System upgrades-yes Version 11.2	System upgrades-yes Version 11.2	System upgrades-no No Change

Challenges



CONCLUSIONS

- Challenges
 - Fear of change from paper to electronic
 - Lack of financial support to system upgrades
 - Time-consuming transfers from paper to electronic medical records
 - Differences in databases and versions of electronic system,
 - Users' training of the users
 - Technical support
 - Bandwidth is an issue
- Immunization Registry (GRITS-linked to the state health department).
- State Electronic Notifiable Disease Surveillance System (SendSS) and the Electronic Lab Reporting (ELR) -not linked for data entry directly into the systems.
- Health district leadership recommends:
 - MU processes is expensive
 - Requires funding, manpower and support from the State Health Department and Federal agencies.
 - Needs integration of disparate systems into a single EHR system which could enhance public health.

REFERENCE

Shah, G.H., Rogers V. & Holley V. (2011). Local Health Departments' (LHDs) Meaningful Use Readiness, General Informatics Capacity, Needs, and Barriers. Oral presentation at CDC Public Health Informatics Annual Conference -- Engaging, Empowering, Evolving Together. August 21-August 24, 2011, Hyatt Regency, Atlanta, Georgia.

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