



Using State-Local Partnerships to Build the EPHT Infrastructure in Maryland

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COUNTY DATA INITIATIVE

- Background
- Scope and Goal
- Objectives
- Methods
- Results
- Discussion/Recommendations
- Conclusions
- Next Steps



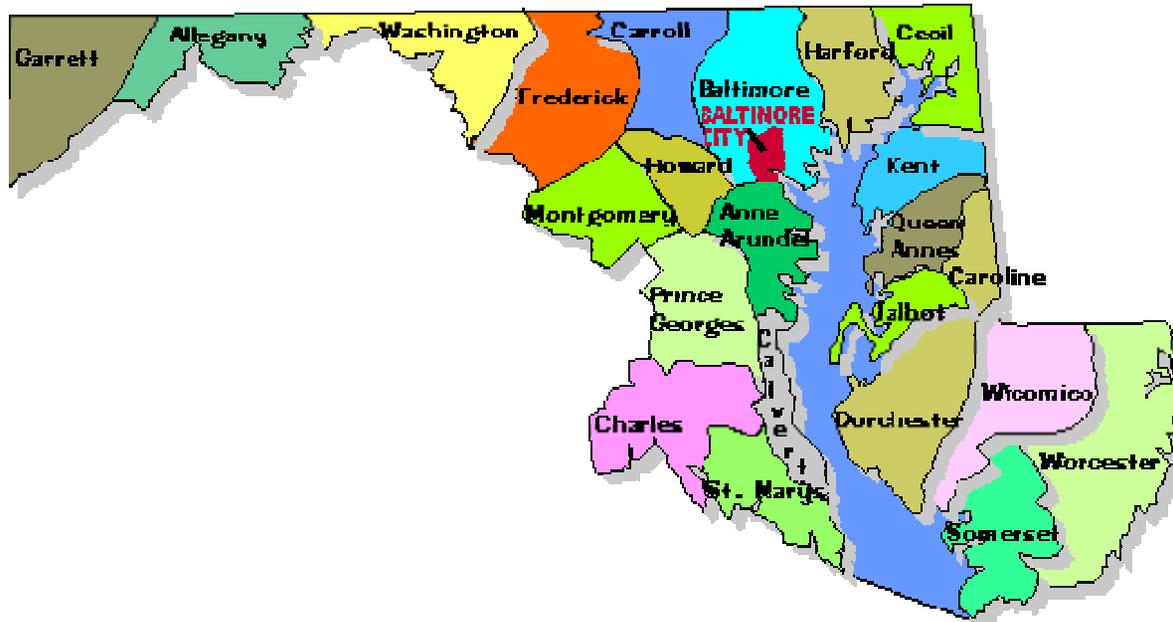
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How can EPHT support Local Health Depts?

- Better interoperability for collecting, comparing, and sharing data among jurisdictions
- Increased efficiency in planning, enforcement
- Improved timeliness of response
- Improved information for policy development
- Improved information to consumers

BACKGROUND

- 24 local health departments (LHDs) in MD
- Each is different and works independently.





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BACKGROUND (Cont.)

- MD EPHT Data Users Survey: Local EH practice is very different from “EPHT”.
- Health laboratory plans to acquire LIMS.
- LHDs want help in “going electronic”.
- Other potential partners (private testing labs, other state agencies) are unknown quantities.
- Hopkins study recommended a coordinated state-wide approach to technological advances.

SCOPE AND GOAL

- Scope: Build capacity and strengthen relationships between state and local partners for EPHT.
- Goal: Plan and implement a *real-time* web-based network for automated data flow into MDE & EPHT from local partners.



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OBJECTIVES

- To create partnerships with LHDs and other key players
- To document “core data elements” and current workflow in EH units
- To recommend IT standards consistent with EPHT for use by LHDs
- To obtain funding to build the network



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METHODS

- Decide where to start!
- Define and recruit local partners.
- Conduct on-site workflow & needs analyses.
- Survey private labs for capacity & cooperation.
- Assemble network team.
- *Involve partners at every stage.*



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METHODS (Cont.)

- Document data workflow with site visits:
 - Interview sanitarians and data entry personnel
 - Shadow sanitarians during field data collection
 - Document steps in their process of data collection and storage
 - Produce flow charts and narrative descriptions
 - Obtain input and make recommendations for improvement.
 - Develop different scenarios for using shared data.
 - Determine the least invasive way to get from current status to “electronic” operation.



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RESULTS

- Start with WATER:
 - Involves all jurisdictions, all levels of govt., all citizens
 - 2/3 Marylanders drink surface water, 1/3 ground water
 - 4.3 million on public water, 900,000 (17%) on private wells
 - 40,000 public drinking water submissions to MDE/year
 - all on paper!



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RESULTS (Cont.)

- Initial water programs:
 - Private drinking water wells
 - Public drinking water
 - Ambient surface water monitoring (BEACHES, STORET)

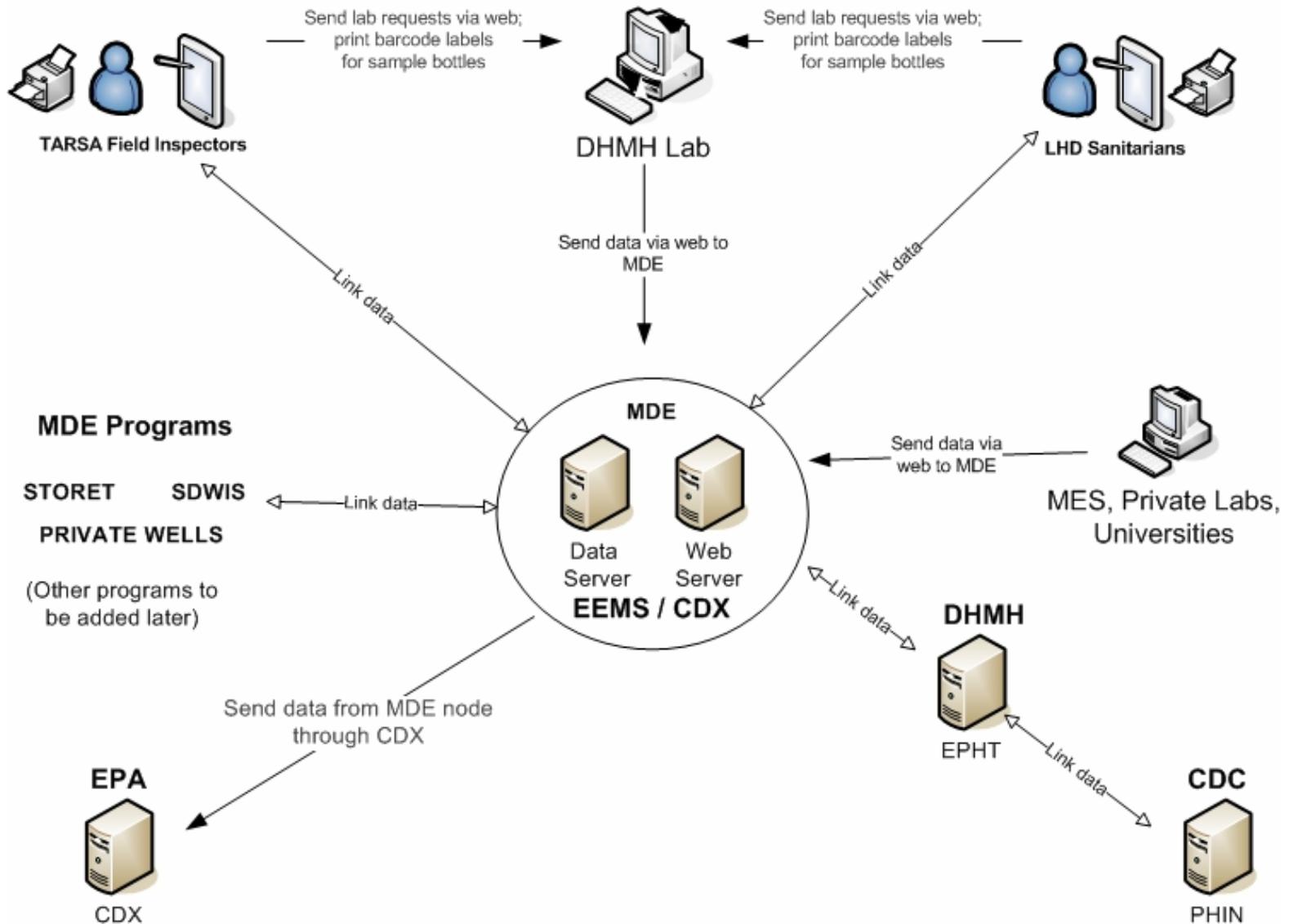


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RESULTS (Cont.)

- Data Sharing Partners
 - MD Association of County Health Officers Data Committee (general oversight)
 - MD Conference of Local Environmental Health Directors
 - Four LHDs, especially sanitarians and data entry
 - MD EPHT Planning Consortium
 - Health: EPHT, IT, laboratory
 - MDE: EPHT, IT, Data Mgt, Water Programs, field staff
 - Maryland Environmental Service
 - Private and university testing laboratories

Conceptual Design – Electronic Water Data Exchange (Phase I)





Modular Concept

Data Domain	County 1	County 2	..Partner (n)
Water Private Wells Public D.W. Surface Monitoring	x		
Septics			
Data Domain(n)			



Modular Concept

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Water Private Wells Public D.W. Surface Monitoring	x x		
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Modular Concept

Data Domain	County 1	County 2	..Partner (n)
Water			
Private Wells	x		
Public D.W.	x		
Surface Monitoring	x		
Septics			
Data Domain(n)			



Modular Concept

Data Domain	County 1	County 2	..Partner (n)
Water			
Private Wells	x	x	
Public D.W.	x	x	
Surface Monitoring	x	x	
Septics			
Data Domain(n)			



Modular Concept

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Modular Concept

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Modular Concept

Data Domain	County 1	County 2	..Partner (n)
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Private Wells	x	x	x
Public D.W.	x	x	x
Surface Monitoring	x	x	x
Septics	x	x	x
Data Domain(n)	x	x	x



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RESULTS (Cont.)

- Different local data workflow practices
 - Use same forms for state lab requests.
 - Local forms also exist.
 - Data collection, storage, reporting & retention processes vary & are mostly paper-based.
 - Methods of storing data and data standards vary.
 - Some local HD's lack financial and IT resources.
 - Need more effective data QA/QC procedures.



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Results of Private Lab Survey

	n	Percent
Total Respondents	49	-
Electronic now	44	90%
Electronic plans	4/5	98%
Willing/maybe participate	44	90%

Most private laboratories can receive and report tests electronically, and are willing to participate in the new network.



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RESULTS (Cont.)

- Network development team applied for an EPA NEIEN Challenge Grant to automate water data flow from sample collection to data reporting.



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DISCUSSION / RECOMMENDATIONS

- Partners have been easy to recruit.
- New programs and partners should be easy to add once network is built.
- Importance of involving partners early



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CONCLUSIONS

- EPHT has fostered better communication with local partners.
- But local partners don't have the necessary resources for data automation and network integration.
- EPHT may need to find the funding to incorporate more local data.



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CONCLUSIONS (Cont.)

- This is a model collaborative inter-agency effort.
- Local EH practice differs from state and national practice.
- Local *vs.* state responsibilities & data needs differ.



CONCLUSIONS (Cont.)

- *If EPHT is to be useful to local EH practitioners, it must be designed with their needs in mind.*



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“In theory, theory and practice are the same thing...”

...But in practice, they are different.”



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NEXT STEPS

- Decision on EPA Challenge Grant in May, funding would begin Aug-Sept 2005
- Planning & implementation of environmental network Sept 2005 – Aug 2007
- Pursuing other sources of funding to build other pieces of the network
 - Adding new partners
 - Adding new data streams
- Environmental data sharing network will be linked with Maryland EPHT.



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THANKS & ACKNOWLEDGMENTS

- **DHMH:** Diane Matuszak, MD, MPH; John Braggio, MPH, PhD; Jim Thomas; Sam Allen; John Ryan, MD, Parveeza Shaikh; Rashid Malik; Art Thacher; Michael Wajda; Joe Haney; David Sevdalian
- **MDE:** Richard Eskin, PhD; Marie Halka; George Harman; Santha Kurian; Fred Schenerman; Carlton Washburn; William Beatty; William Evans; Nancy Reilman; Jay Prager; Eric Dougherty; Tony Dubler, Drex Ryberg
- **LHDs:** Rodney Glotfelty, MPH; Steve Sherrard; Craig Umbel; Larry Bohn; Paul Orfutt; Carrie Lane; Charlie Zeleski; Aaron Kite-Powell; Susan Kelly, Gary Browning
- **MES:** Jay Janney



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THANKS & ACKNOWLEDGMENTS (Cont.)

- ...And the many private and university testing laboratories and future partners that will make this project possible.



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*“EPHT - It’s about linking
people...*

...as much as linking data.”



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