Agenda

- Tennessee Public Health Landscape
- How did we get here... little history
- Public Health – 10 essential services
- Public Health use of EMR/EHR
- Public Health IT environment
- Public Health uses of Open Source
Tennessee Public Health Landscape

- 95 counties
  - 6 Metropolitan County Health Departments
    - Sullivan
    - Knox
    - Hamilton
    - Davidson
    - Jackson/Madison
    - Shelby
  - 89 rural counties form 7 rural regions
7 Rural Regions oversee 89 counties

- Every county has a health department
- State/county partnership
- County funding supports
  - Facilities & maintenance
  - Staff
  - Supplemental services
Tennessee Core Public Health Services

- **Community-based:**
  - Health Education
  - Epi/Outbreak Investigations
  - CSS Care Coordination
  - Tendercare
  - Preventive Dental
  - Emergency Preparedness

- **Clinic-based:**
  - WIC/Nutrition
  - Immunizations
  - Family Planning
  - STD Services
  - Well Child Checks

- **Other:**
  - Voter Registration
  - Birth/Death Certificates
  - Certifications (Presumptive Eligibility)
  - Interpreter Services
Tennessee
Optional Public Health Services

- Community-based:
  - Health Promotion
  - Home Visitation
    - HUGS
    - Healthy Start

- Clinic-based:
  - Dental
  - Primary Care
  - Prenatal Care
Tennessee
Rural Regions

- Pharmacy distribution
- IBM AS400 systems
  - Patient Tracking Billing and Information System (PTBMIS)
- Some services offered at regional level
  - Tuberculosis Clinic
  - Childrens’ Special Services Clinics
  - HIV/AIDS clinics
Tennessee Regional and Local Health

Services in all 95 counties
- Immunizations
- EPSD&T/ Well child exams
- WIC nutrition services
- Family Planning Services
- STD Control
- TennCare Advocacy

Services in some counties
- Primary Care
- Prenatal Care
- Dental Services

Regional Office & Metro Services
- Epi/emergency preparedness
- TB control
- Children’s Special Services (CSS)
- School-Based Dental Services
- Community Development
- Health Promotion

Other Grants or Programs
- Tennessee Primary Care Office
  - Safety Net - FQHC, Primary Care, Dental
  - Health Access Program
  - Flex Program
  - Recruitment and Retention (J1-Visa, PIGs, etc.)
How did we get here... little history.

- Patient Tracking Billing and Management Information System (PTBMIS) is a legacy proprietary system – NetSmart, Inc.
  - 25+ years old
  - No EHR
  - No interoperability
  - Evolved as a custom public health system

- Internal and external pressures are driving replacement
  - HIT, HIE, legacy technology, staff retirements, cost of ownership

- Symphony, Inc. contracted study for PTBMIS successor
  - Current services and technologies, future requirements, gap analysis, market assessment and recommendation

- Several options, but VISTA recommended
Public Health - 10 Essential Services

1. **Monitor health status** to identify community health problems
   - Community health status reports
   - Syndromic surveillance

2. **Diagnose and investigate** health problems and health hazards in the community
   - Public Health case investigations
   - Communicable disease surveillance
3. **Inform, educate**, and empower people about health issues

4. **Mobilize community partnerships** to identify and solve health problems

5. **Develop policies and plans** that support individual and community health efforts

6. **Enforce laws and regulations** that protect health and ensure safety
7. ** Link people to needed personal health services and provision **health care when otherwise unavailable**
   - Immunization programs and Registry
   - Family Planning, WIC, Children Special Services, etc.
   - Primary care clinics

8. Assure a competent public health and personal health care **workforce**
Public Health - 10 Essential Services

9. **Evaluate effectiveness, accessibility, and quality** of personal and population-based health services
   – County Health Assessments

10. **Research** for new insights and innovative solutions to health problems
Public Health - 10 Essential Services

The four most impacted by HIT:

1. **Monitor health status** to identify community health problems

9. **Evaluate effectiveness, accessibility, and quality of personal and population-based health services**

These use data from other healthcare organizations.
Public Health - 10 Essential Services

The four most impacted by HIT:

2. **Diagnose and investigate** health problems and health hazards in the community.
All surveillance activities and many other programs are directed at dx and investigation. Interoperability with other computer systems is becoming more and more important.

7. **Link people to needed personal health services and provision** health care when otherwise unavailable.
When public health acts as the primary care provider, we need an EMR/HER, just as any other provider.
Public Health needs EMR/EHR

- Tennessee Department of Health (TDH) delivers traditional public health services, including primary care, to nearly 1 in 6 Tennesseans in ALL 95 counties.
- TDH is the medical home for approximately 82,000 uninsured patients with annual visits over 200,000.
- TDH needs to share medical record information electronically in public health emergencies, i.e. recent meningitis outbreak and influenza investigations.
- TDH can make use of EMR/EHR for quality reporting functions such as eMeasure.
- Electronic clinical reminders and triggers can signal providers that an event is potentially of public interest.
Public Health environment

- Public health has unique opportunities to use Open Source
  - Broad variety of public health organizations
    - Environment, size, scope of responsibility
  - Small number of public health organizations
    - With many channels of communication
    - 57 states and large cities
    - 3,144 counties
    - ASTHO, APHA, WHO, APHL
- Similar procurement and funding requirements
- Common services delivered to citizens
Public Health uses of Open Source

- CDC solutions
  - NBS – NEDSS Base System – electronic disease surveillance system
  - PHIN-MS – public health information network messaging system
- Communicable surveillance systems such as PRISM developed by Florida
- Women, Infants and Children – USDA agency managed systems
Summary

- Tennessee is implementing VistA
  - EHR initially with an eye towards other modules as applicable
- Public Health has unique needs from EHRs
- Public Health makes use of EHRs in other healthcare organizations
- We feel the nature of public health lends itself well to open source strategies