VISTA/CPRS As the Core of a Public Health Information System

Using Existing Strengths and Flexibility for Public Benefit

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What Is the TDH Need?

- 6.7M Tennesseans in 95 counties
- Primary prevention and primary care services
- Maternal and child health services
- Medical care associated with emergencies
  - e.g. Gatlinburg fires
- Home visiting, care management and navigation services
- Public Health laboratory services (NBS, molecular diagnostics, biosafety, Southeast Regional reference lab)
- Federal programs change requirements frequently

Where Did We Start?

- Legacy scheduling, tracking, and billing system
- Stretched to manage some clinical information
- "Roll and scroll" used for 25 years
- Excellent relationship with primary vendor
- ... but one source for all changes, each with approval process by TDH and vendor
- Pace of change slow
- *"Safety Net" primary care began for >150K in 2006*

How Did We Choose VISTA/CPRS?

- External consultant group recommended VISTA
- OSHERA became a reality, vxVistA available
- Maximum flexibility
- Enterprise architecture for 2M people
- Funding was difficult to obtain and very limited
  - *Need a high value EHR system!*
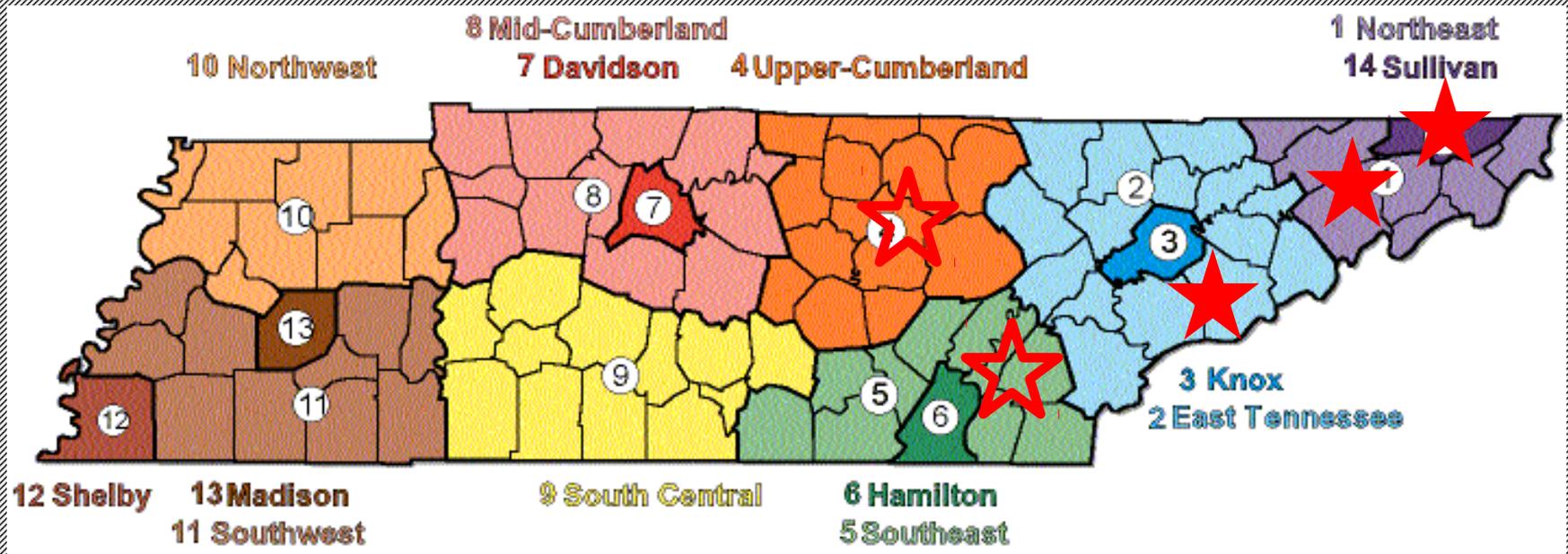
A Slow Start, Then Rapid Progress

- Decision to base EPI on vxVistA 2013
- Secured state investment in FY14
- Procurement process in FY14
- Activated contract with DSS in Sept 2014
- First health department "Go Live" Oct 2015
- First region finished implementing Dec 2016
- Second region (twice as large) by Apr 2017
- First Metro "Go Live" in May 2017

How are we organized?

- 126 sites
- 27 sites currently live
- Decreasing cycle times
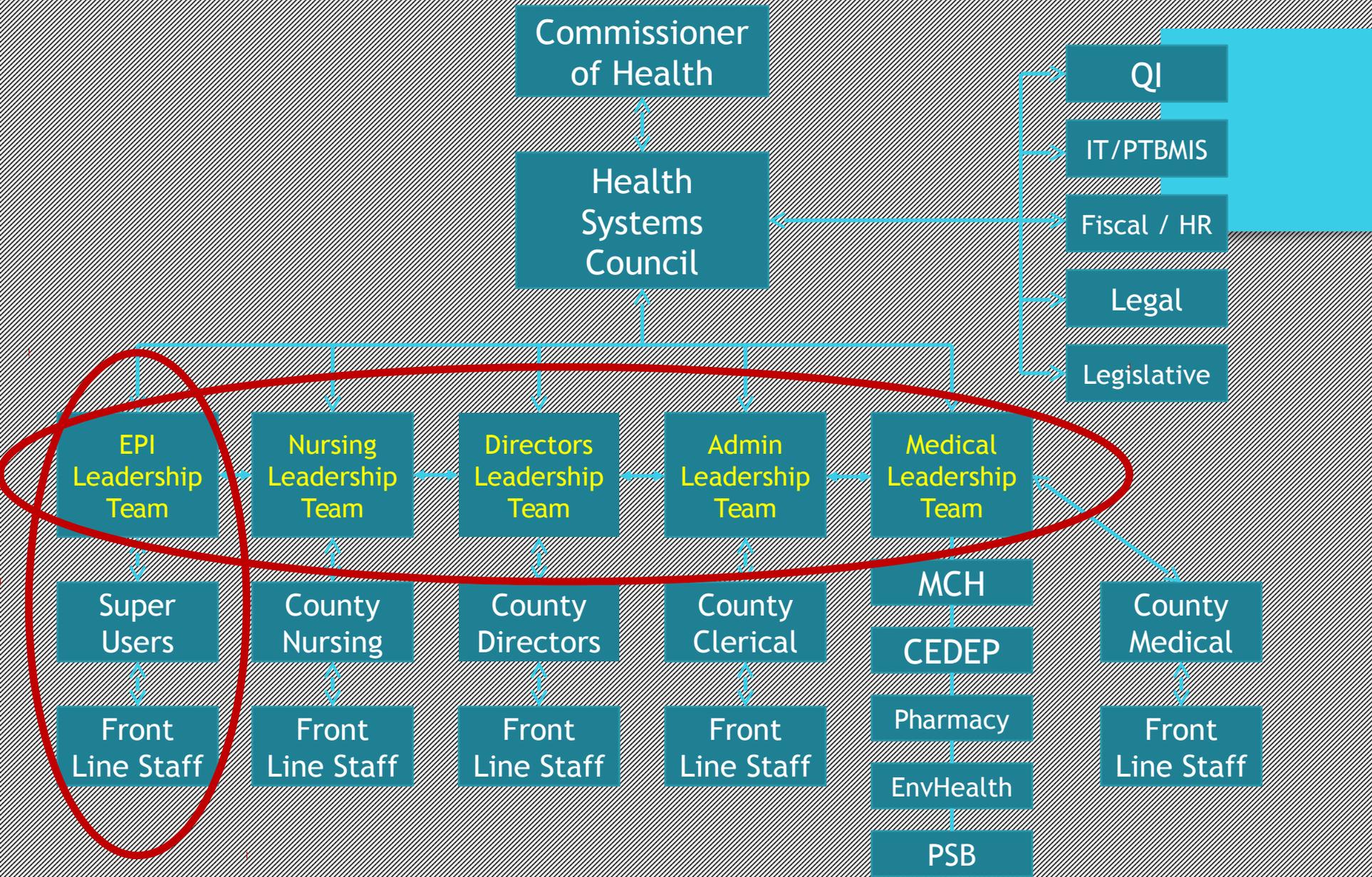
Why Is EPI Working?

- EPI is not *primarily* a technology project
- The EPI team and DSS work *collaboratively*
  - CHS, ITSD, QI, BSD, STS form the state EPI team
  - Good communication and collaboration with DSS
  - Good collaboration also with NetSmart (legacy system)
- TDH asked for help in project management
- No "in house" technical development (Class III)
- Evolved system of oversight
  - Weekly internal leadership meetings
  - Biweekly Steering Committee and DSS leadership meetings
  - Report to Legislature & Finance quarterly
  - On Governor's public dashboard

Why Is EPI Working?

- Careful redesign of paper-based processes to leverage EHR strengths using LEAN tools
  - *These are our process changes – EPI is the means*
- Development of CACs and Super Users
  - Regional and Local Health staff
- EPI Leadership Team
  - Inclusion Super Users in ongoing clinical oversight
  - Inclusion of EPI staff in Leadership Team discussions
  - Identify urgent needs quickly
  - Prioritize requests for improvement

EPI results to date

- Slow start has become increasingly efficient roll out
- Many benefits to core clinical processes / quality
- Staff acceptance is excellent
- Initial productivity hit is decreasing
- Planning for EPI v2.0 is underway
- Decreased cost by $5M from original estimate

Why Is EPI Working?

- Clinical ownership – It's about the people
  Every day another company wakes up and realizes that its most underutilized resources are the minds and hearts of its people. It is people – those closest to the customer and closest to the work – who have the answers, who own the solutions.   Doug Krug

- Real collaboration with technical experts

- Listening, prioritizing, taking action
  - The majority of the EPI Leadership Team has front line roles

Why Is EPI Working?

- Clinical redesign concurrent with technical
- Two generations of EPI workflow
- Listening to end users, prioritizing, taking action
  - Many PDCA cycles and LEAN projects
  - Go see, Ask why, Show respect
- TDH commitment to the Baldrige process
- Commitment to rapid cycle improvements

Final Thoughts

- VISTA / CPRS has excellent end user acceptance
  - EPI does also
- VISTA / CPRS has extensive software flexibility
  - Intrinsic flexibility
  - Key technical partner (DSS)
  - In-house CACs teaching and interfacing with end users
- Open Source software has many advantages
- No in-house software development
- Enterprise architecture
- EPI is a dynamic process that serves the MVV of TDH
- **"Value" is a key concept**

It takes a "Team of Teams"