Welcome- CSOHIMSS EMRAM Journey Model for Clinical Informaticists

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Objectives

- Welcome to CHP
- Centralizing I.T.
- CHP IT Strategic Initiatives
- EMRAM model journey for Clinical Informatics
- Clinical Informatics career development
- Certification, degrees
- Succession Planning

Catholic Health Partners

Our Mission

Catholic Health Partners extends the healing ministry of Jesus by improving the health of our communities with emphasis on people who are poor and under-served.

Our Sponsors

- The Sisters of Mercy, South Central Community
- The Sisters of Mercy, Mid-Atlantic Community
- The Sisters of the Humility of Mary
- The Franciscan Sisters of the Poor
- Covenant Health Systems

Our Core Values

Together, we commit to:

- **Compassion:** to serve with mercy and tenderness

- **Excellence:** to be the best in the quality of our services and the stewardship of our resources

- **Human Dignity:** to value the diversity of all persons and to be respectful and inclusive of everyone

- **Justice:** to act with integrity, honesty and truthfulness

- **Sacredness of Life:** to reverence all life and creation

- **Service:** to respond to those in need

CHP at a Glance
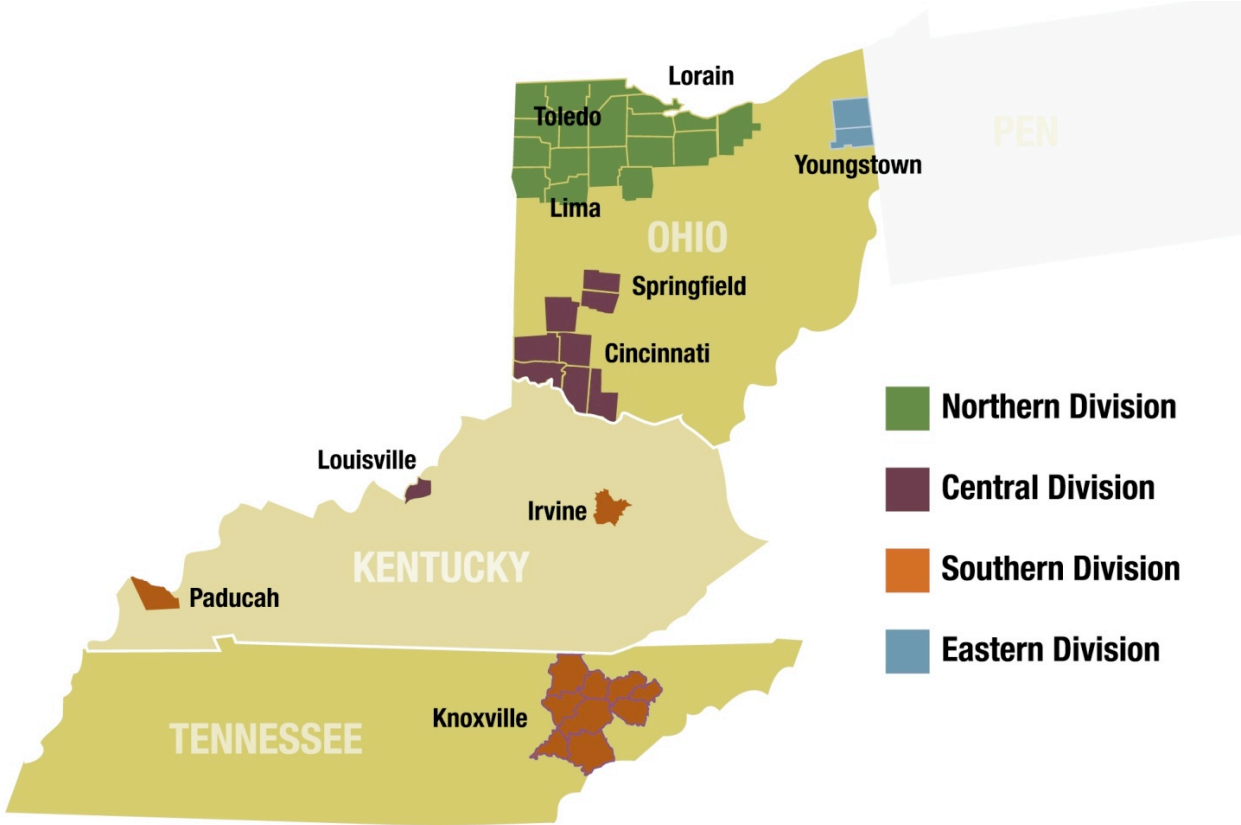
Hospitals	31
Long-Term Care Facilities	14
Health Insurance Plan (PPO) Covered Lives	107,518
Affordable Housing	17 Facilities, 791 Units
Hospice Programs	6
Home Health Agencies	9
Associates	39,303
FTEs	31,535
Affiliated Physicians	7,496
Total Assets	$5.59 B
Net Operating Revenues	$4.41 B
Net Income	$228.5 M
Operating Income	$112.1 M
Community Service Benefits	$365.1 M
Bond Ratings	Moody's: A1 S&P: AA- Fitch: AA-

Legend:
- Northern Division
- Central Division
- Southern Division
- Eastern Division

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CHP I.T.

- Combining 9 distinct regional I.T. departments, with C.I.O.s into one organization at CHP.

- Built on Centers of Excellence model

- Relationship Management- "feet on the street"

- Efficiencies

  - Human resources- improved work/life balance

  - Financial resources- leverage one vendor contract, not nine

CHP IT Strategic Initiatives

- Data driven transition
- CarePATH, our branding for Epic
  - Ambulatory physician practices
  - Hospitals
- Cardiology PACS
- 2nd Generation PACS
- Enterprise Storage
- Replacement of LIS and RIS

Utilizing the EMRAM Model to Inform Nursing Informatics Practice: A Journey to Stage 7

Stage 0 – Three Ancillaries Not Installed

- Document current clinical workflows
- Commit to an organizational strategy and guiding principles (what organization hopes to accomplish with implementation)
- Vendor review (wish list & design specification documents)
- Utilize physician (CMIO)
- Planning of hardware infrastructure
- Benchmark with similar organizations
- Define and establish operational leadership support framework
- Develop change & communication strategies and methodologies

Stage 1 – Lab, Rad, Pharmacy Installed

- Analyze capabilities of current system and demands of clinical workflows
- Emphasize & communicate organizational framework for EMR initiative
- Understand the why's of each disciplines workflows and the impact of moving off paper
- Gap analysis (i.e. application capabilities, workflow analysis, and organizational guiding principles)
- Assess impact of any interfaces on outputs
- Analyze impact of device access on workflows

Stage 2 - Clinical Data Repository

- Review/Revise/Communicate health information management processes
- Continue to define downtime processes
- Device and displays a continued focus
- Integrated and systems approach became important – we are all in one sandbox
- Analyze, recruit, and utilize pilot areas – "early adopters & laggards" (Rogers, 2003)

Rogers, E. M. (2003). *Diffusion of innovation* (5th ed.). New York: Free Press.

Stage 3 – Nursing/ClinDoc, CDSS, PACS

- Do not re-create the paper system
- Detailed build phase
- Provide for a framework for dealing with difficult decisions and their implication and tracking of the impact of this
- Communicate implications to Physicians/APN
- Implement different support roles (Subject Matter Expert, Super User role, Trainer, etc)
- Define leadership support required post implementation
- Training and Super Users are key prior to, during, and post implementation
- Change/update policy and procedures with design and implementation of application

US EMR Adoption Model℠

Stage	Cumulative Capabilities		
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP		
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), full R-PACS		
Stage 5	Closed loop medication administration		
Stage 4	CPOE, Clinical Decision Support (clinical protocols)		
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology		
Stage 2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable		
Stage 1	Ancillaries - Lab, Rad, Pharmacy - All Installed		
Stage 0	All Three Ancillaries Not Installed		

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Stage 4 – CPOE/CDSS (error checking)

- Design with the order tied from *Provider Assessment → Order → Clinical Kardex → Plan of Care*
- Work-arounds often appear – monitor & fix early before they become ingrained
- Multi-channel system needed for communication regarding changes/updates
- Utilize a blended approach to physician education providing education to them as they need it with option to practice skills in a simulated or play environment

Stage 5 – Closed Loop Med Admin

- Build on past successes -- learn from things that did not go as well
- Concern with alert fatigue
- Work collaboratively on medication practices in all areas from ordering to documentation
- Simulate as much as possible ability to administer & document medications quickly
- Rolled out in inpatient areas except OR & ED

Stage 6 – Provider Doc, full PACS & CDSS

- Incorporate a process update with appropriate amount of standardization and individualization to meet patient care needs.
- Documentation trigger orders/plan
- Focus on clinical decision and support
- Prepare for Stage 6 conference call and plan for site visit and requirements of Stage 7

Stage 7 – Complete EMR

Prepare for the following:
- Closed loop medication processes in all areas
- Patients scheduling & viewing information
- Clinical data warehouses and reporting
- Sharing of clinical information with facilities authorized to treat patient

Stage 0- Three Ancillaries not Installed

- Document current workflows
- Utilize physicians (CMIO role)
- Plan infrastructure, storage
- Executive Leadership support framework
- Develop change and communication strategies

Stage 1- Lab, Rad, Pharmacy

- Analyze capabilities of current systems to expand in scope
- Key Leader summit to determine the vision and guiding principles for E.H.R.
- Gap Analysis- the road map to get to 6-7
- Interface needs
- Device needs and their impact to workflows

Stage 2 – Clinical Data Repository, H.I.E.

- Integrated, systems approach
- Analyze, recruit and implement pilots
- Downtime process
- H.I.M. processes

Stage 3- Clin Doc, DSS, PACs

- Do not recreate the same paper process, even if you believe it was best practice
- Clinicians program, not I.T. program
- Super User expectations- leadership buy-in, possibly an expectation contract
- Support and Implementation not same team
- Change management, collaboration with a standard system vs Facility customization

Stage 4- CPOE, Clinical Protocols

- Assess and frequent monitoring for workarounds, not CNOE
- How best to communicate changes?
- Training – e-learnings and required classroom time. Mandating education with physicians.   Senior Leadership buy-in

Stage 5- Closed Loop Med Admin

- Remember to learn from challenges, mistakes
- Alert fatigue
- MIC, NIC, collaboration
- Workflow analysis, where are the redundancies?

Stage 6- Provider Doc, PACS and CDSS

- Collaborative decisions that are consistently implemented
  - Example: which can be dictated, which must be completed in E.H.R.   Voice Systems? Can they be maintained to the provider's satisfaction?
- Balance of standardization and individual customization
- Now that it is charted, can we report it?

Stage 7- Complete E.M.R.

- Lessons learned from other 7 systems
- Closed Loop everywhere
- Patient scheduling everywhere
- Robust clinical data warehouse, capable of effective reporting
- Sharing clinical information across facilities. (HIE, vendors with a broad market base)

Circle of Support

Clinical Informaticist's Role

- Educate the organization about informatics
- Competencies for all clinicians in an appropriate level of informatics
- Include Clinical Informaticist in many areas
  - Quality Leaders
  - Nursing Leaders
  - Physician Leaders
  - Strategy teams

Clinical Informaticist's Role 2

- Patient Education tools
- Human Factor considerations for E.H.R. systems
- Engaged with new care delivery models
  - ACO, home health, tele-medicine,
- Metrics driven – business intelligence, patient outcomes, quality reporting

Certifications? Value?

- Examples include ANCC, CPHIMS, PMP and others
- Value of certification internally for growth versus what the organization recognizes
- Barriers to re-certification
- Requirements for Magnet recognition
- Certified Clinical Informaticists can be an advocate and educator both within their system and throughout the community.

Clinical Informaticist Career Development

- Objective measures to advance to next stage in career.
- Stretches outside comfort zone and encourages growth
- Enables Clinical Informaticist to see beyond the "bricks and mortar" of their health system into the community.
- Clinical Informaticist Career Levels
  - Based on HIMSS TIGER initiative, modified as needed
  - Job Harmonization- 115 job titles to 24

Clinical Informaticist I

- Associate Nursing Degree
- RN License
- Expected customer service, critical thinking, and teamwork skills
- 1-3 years experience

Clinical Informaticist 2

- Bachelor Degree
- RN License
- Expected customer service, critical thinking,and teamwork skills
- 4-7 years experience

Clinical Informaticist 3

- Graduate Degree
- RN License
- Expected customer service, critical thinking,and teamwork skills
- Active in the clinical community for improving patient outcomes in the community we serve.
- 4-7 years experience

Discussion