2023-06-16

Understanding Oracle Health,

formerly Cerner's Capabilities, Potential and Challenges

Post Acquisition

Health TechNet

Friday, June 16th , 2023

Joe Bormel, MD, MPH

Oracle Cerner and Transforming DHMS

Transform DHMS

All Programs will contribute towards the incremental progress for the WF3.0 vision (ex. Identify areas of inefficiency and implement solutions)

Oracle Cerner Celebrates HIMSS Stage 7 and Davies Client Achievements

by Oracle Cerner
Published on August 29, 2022

Oracle Cerner is excited to celebrate clients that have achieved top HIMSS Electronic Medical Record Adoption Model (EMRAM) Stage 7 validation, the highest recognition for hospitals that have embraced technology enhancements including the shift from paper to electronic health records (EHR). At a time when the healthcare industry faces significant challenges from slow adoption of technology, to clinician burnout, and to inequities in healthcare access, these hospitals and health systems have prioritized
themselves in an increasingly competitive m

EMRAM model validations measure clinica
adoption of EHR technology to support orga

Since 2021, Oracle Cerner has supported mo
Examples of clients adopting technology to
satisfaction include:

- **Antelope Valley Medical Center** in C
  The medical center uses several tools including Oracle Cerner technology for its antimicrobial stewardship program. This allows pharmacists to advance the appropriate use of antimicrobials to support their goals of reducing overall antibiotic use for non-bacterial diseases, optimizing antibiotic use for bacterial infections, and improving patient outcomes while eliminating unnecessary patient-care costs.
- **Hutchinson Regional Medical Center** (HRMC) in Kansas received a medal from the US

1 Adventist Health
2 Antelope Valley Medical Center
3 Children's Health of Orange County
4 Covenant Health
5 Hutchinson Regional Medical Center
6 Intermountain Healthcare
7 King Faisal Specialist Hospital & Research Center
8 MLK Community Healthcare
9 **Memorial Hermann Health System** *
10 Northern Light Health
11 University of Missouri Health Care

https://www.cerner.com/newsroom/himss-stage-7-and-davies-blog
* named in https://www.beckershospitalreview.com/ehrs/why-big-health-systems-are-moving-to-epic.html

Industry Perspective

https://www.beckershospitalreview.com/ehrs/why-big-health-systems-are-moving-to-epic.html?origin=CIOE&utm_source=CIOE&utm_medium=email&utm_content=newsletter&oly_enc_id=2515J3520389E9Q

BECKER'S HEALTH IT

October 17, 2022

Why big health systems are moving to Epic

Giles Bruce - yesterday

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Two large health systems — Atlanta-based Emory Healthcare and Houston-based Memorial Hermann — recently switched their EHRs from Oracle Cerner to Epic, continuing a trend of bigger hospital groups moving to the Verona, Wis.-based software giant.

Several health system CIOs and other IT leaders told *Becker's* the reasons for this include the desire to consolidate to one EHR from multiple vendors, with Epic being the most dominant player, while others said not to put too much stock in the name of the companies as the EHRs are fairly similar and depend on what your patients and clinicians are looking for.

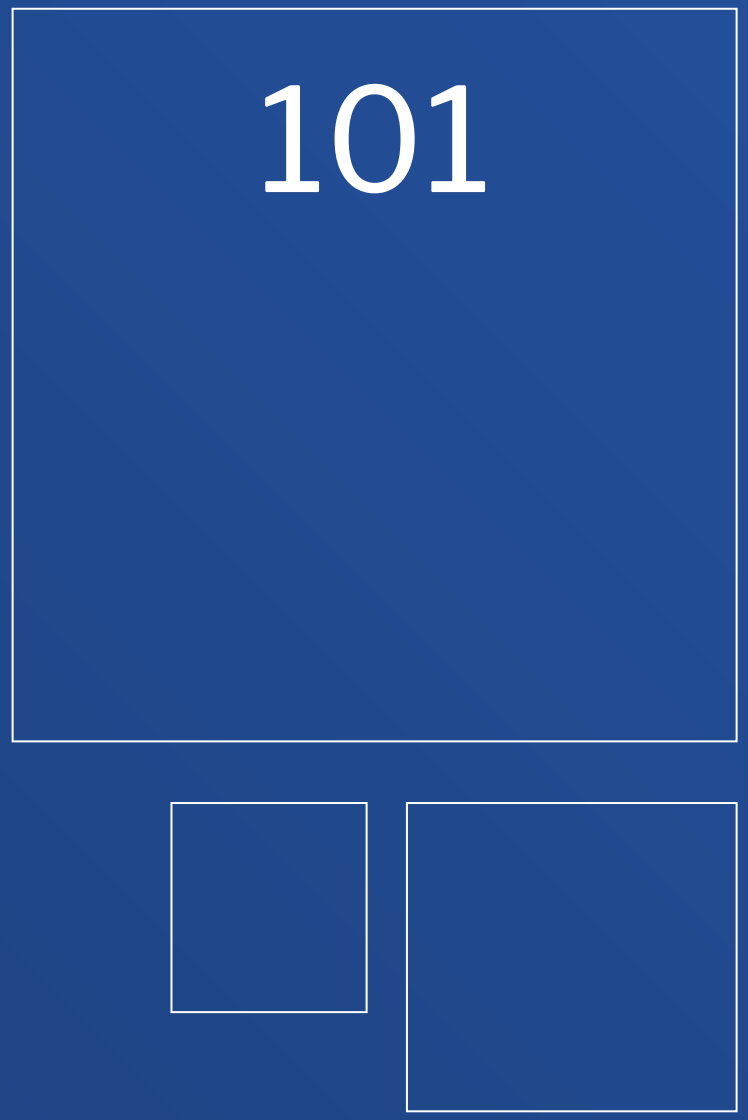
"When you've seen one health system, you've seen one health system," said Aaron Miri, senior vice president and chief digital and information officer of Jacksonville, Fla.-based Baptist Health.

But he said Baptist Health went to Epic, a transition completed July 30, to integrate into a single EHR.

"While I can't speak for other health system's reasons, I do think that healthcare is becoming so complicated with so many intersecting levels of care that all health systems must be asking themselves how to simplify the equation and make care delivery a much more seamless experience for providers and patients alike," he said.

"In the U.S., Epic is especially compelling in large systems," he said. "It simply solves more problems and scales better. Epic's strict implementation practices mean you will end up with a functional system, even if it isn't fabulous."

Breaking down EHR functionality



Oracle Cerner 101 - ***What it does?***

- Executive Summary
- Solution
  - Common Process Map
  - Workflows
- Product
  - Main screen patterns (Organizer, Patient)
- Implementation (stabilization, perpetual optimization)
  - Industry Standard Implementation Patterns
  - DOD pattern (circa HIMSS 2021)
  - VA Pattern - extending and/or Reinventing a VA pattern
- Industry Perspective
  - Implementation experience, both leading EHRs
  - Safety, Satisfaction, and Usability
  - HIMSS Electronic Medical Record Adoption Model

Essential Processes:

1. Identify *
2. Assess
3. Plan
4. Order *
5. Schedule
6. Perform
7. Document
8. Account *

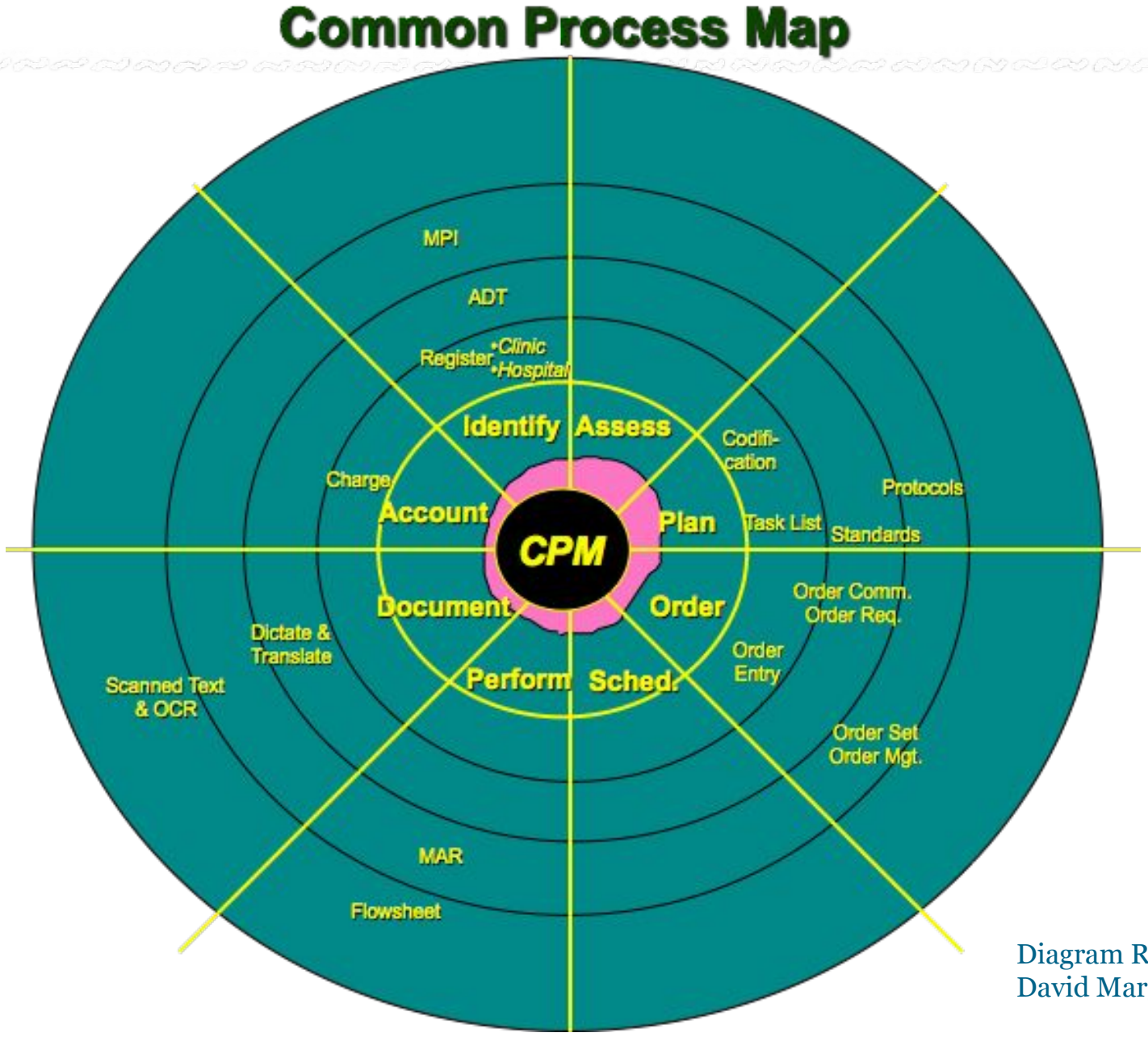


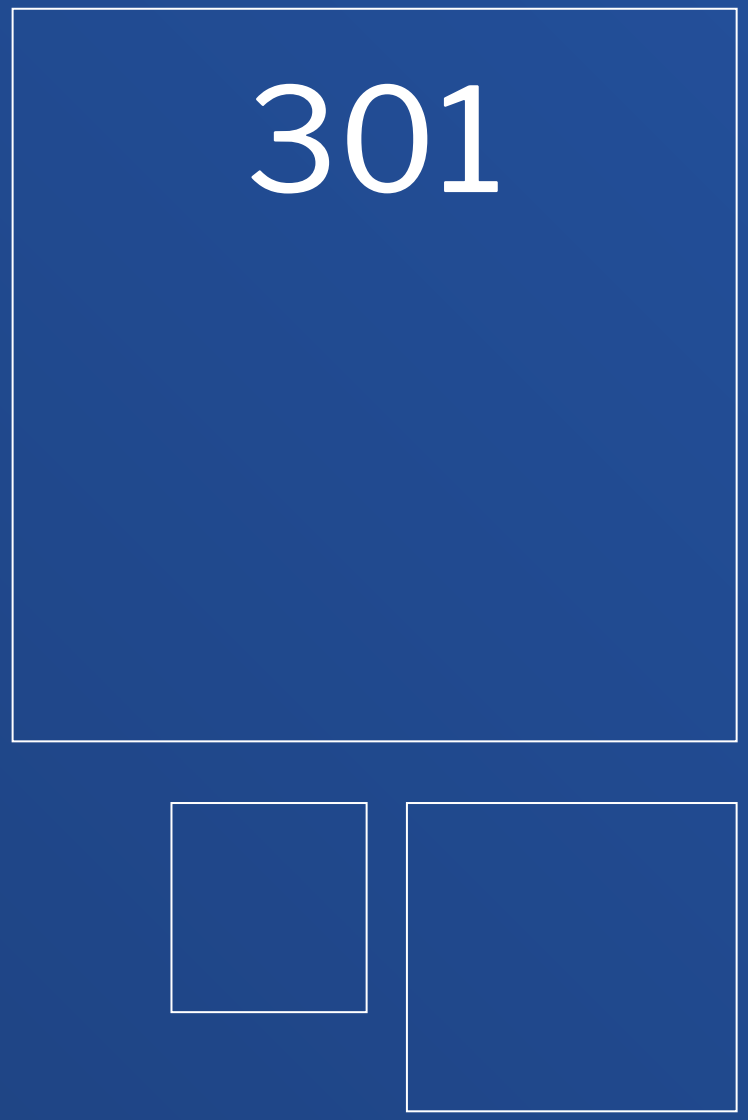
Diagram Reference:
David Margulies

* These 3 processes are the first to be standardized within then across each institution. Identity management continues to be a challenge internationally. Order catalogues vary as do the resulting charge description masters.

Workflows

Identify	Registering a new patient
Assess	Completing an assessment template such as vital signs
Plan	Reviewing an existing standard clinical practice guideline, selecting relevant branches
Order	Ordering a medication, lab or radiographic exam; also discontinuing, reordering, discharging, reversing a discharge, etc
Schedule	Scheduling a referral
Perform	Performing a procedure such as a blood draw for a lab test or administering a medication
Document	Entering, reviewing and signing a clinical note such as a discharge summary
Account	Completing a billing form such as a UB-04

Achieving healthcare goals



Oracle Cerner 301 - ***Success at national levels***

- Executive Summary
- Implementing Oracle Cerner is in service of
  - Financial: Profit/Cost
  - Access: Government role in health care
  - Quality: Measurement and outcomes
- International Health Care Systems by Country
  - Single payer vs single provider vs single ‘payvider’
  - Sample Countries
- Leveraging *lessons learned*
  - Overcoming obstacles
    - Major postures relative to users
  - **Core** - platform deployment expertise
  - **Context** - capabilities that shouldn’t be Core
- Nobler Motives - a bright future
  - RWE: UK (Landray, Horby); Israel and Covid

Executive Summary of Oracle Cerner as an EHR

	Oracle Cerner	Other Industry Leader	Context
Origins	Publicly traded	Privately held	
Large system “chops”	Catching up	Strong	
Originated in	Inpatient	Ambulatory	Both vendors integrate multiple care settings with a single database view of all patients.
Philosophy	An expansive, flexible toolkit, capable of supporting wide usage patterns	A focused platform strongly supporting narrow usage patterns with longer-standing investments in end-user experience and implementation.	
Sameness	Both systems support the same workflows (registration, chart review, ordering, departmental performance, records management) Both have substantially similar GUIs, largely replicating 1990s ‘Windows’ look-and-feel (cf Google, Amazon, cloud-native dynamic predictive displays and elastic response times.)		Both vendors loudly acknowledge that their architecture and technology is rooted in the 1980s and 90s. Functionality and usability gains will come from AI/ML.
Differences	Lagging rev cycle, Less rigorous product mgmt and implementation methodology.	“Product is not exceptional. It is not exceptionally good or bad.”	Product strength (“Capability Gaps and Limitations”) and implementation issues noted in this deck and external audits.

International Context of Achieving a Successful EHR. *NB: VA Complexity Burden is High.*

← more private more public →

	Massachusetts (within USA)	Netherlands	Norway	England (within UK)	**"Best/Worst of both worlds"**
Population size (health spending in % GDP, 2018)*	6.9M (16.9%)	17.2M (10%)	5.3M (10.5%)	56.0M (10%)	
Universal health coverage	Multipayer system with mandated minimum level of coverage	Multipayer with mandated insurance of basic services	Single-payer system, with coverage for all services	Single-payer system, with coverage for all services	
Role of government	• Federal and state govt. provide Medicare and Medicaid • Sets the minimum level of covered services • Since 2012. Health Policy Commission annually sets the spending growth benchmark	• Defines the basic set of services annually • Sets priorities and supervises market & access • Pays capitation per member to insurers (via taxation); members also pay premium	• Taxation-based health system with one national health insurance body • Govt. runs Regional Health Authorities for specialty care, municipalities for primary care	• Funding for the UK's National Health Service (NHS) comes from tax revenue. • NHS owns most of the hospitals and employs medical providers	
Role of private players	• 40% of MA spending is funded by private payers • Employers can negotiate with providers directly • Two big health systems in MA: Mass General Brigham and Beth Israel Lahey Health	• Non-profit insurers provide mandated & supplemental coverage (87% of pop.) • Insurers and providers can experiment with value. based payments • Providers and insurers compete on health purchase market on price & quality	• 85% of spending is public; supplementary coverage available • Private providers offer primary and specialty care with out-of-pocket payment	• Some private providers for elective services, which are paid out-of-pocket or through private supplemental coverage (10% of population)	

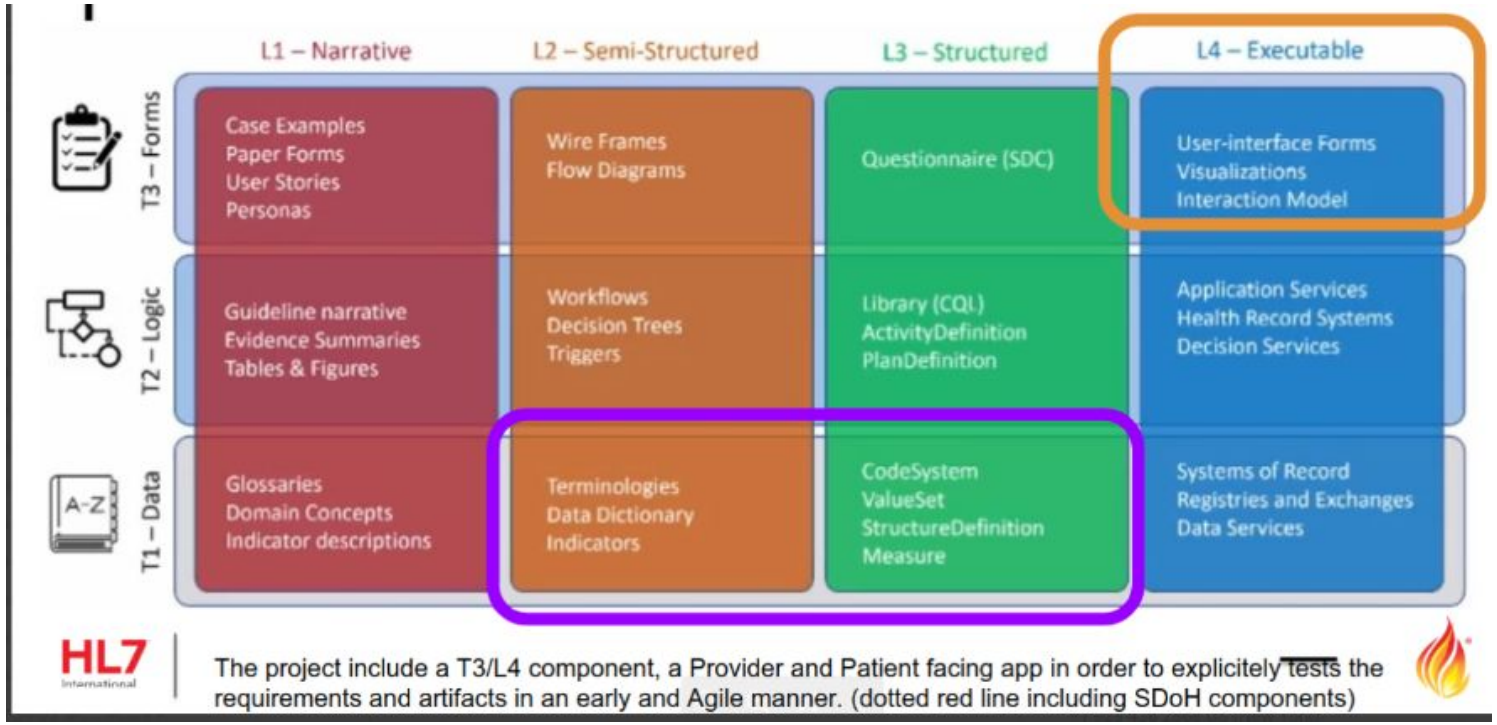
Source: Massachusetts Medical Society

Using EHR platforms: essential to achieving effective interoperability

Four Levels of Interoperability

- **Foundational (Level 1):** Establishes the inter-connectivity requirements needed for one system or application to securely communicate data to and receive data from another
- **Structural (Level 2):** Defines the format, syntax and organization of data exchange including at the data field level for interpretation
- **Semantic (Level 3):** Provides for common underlying models and codification of the data including the use of data elements with standardized definitions from publicly available value sets and coding vocabularies, providing shared understanding and meaning to the user
- **Organizational (Level 4):** Includes governance, policy, social, legal and organizational considerations to facilitate the secure, seamless and timely communication and use of data both within and between organizations, entities and individuals. These components enable shared consent, trust and integrated end-user processes and workflows

Interoperability
to achieve national
and
international
objectives
requires challenging
conformance to standards
development organizational
models, institutional clinical
knowledge management, and
exchange (e.g. closed-loop
referral)



The natural history of large EHR roll outs paints an informative, cautionary tale.

Centre for Public Impact
A BCG FOUNDATION

BCG's Foundation Approach to:

- Legitimacy
- Policy
- Action

in service of

Implementation, Adoption, Stabilization, Benefit Attainment

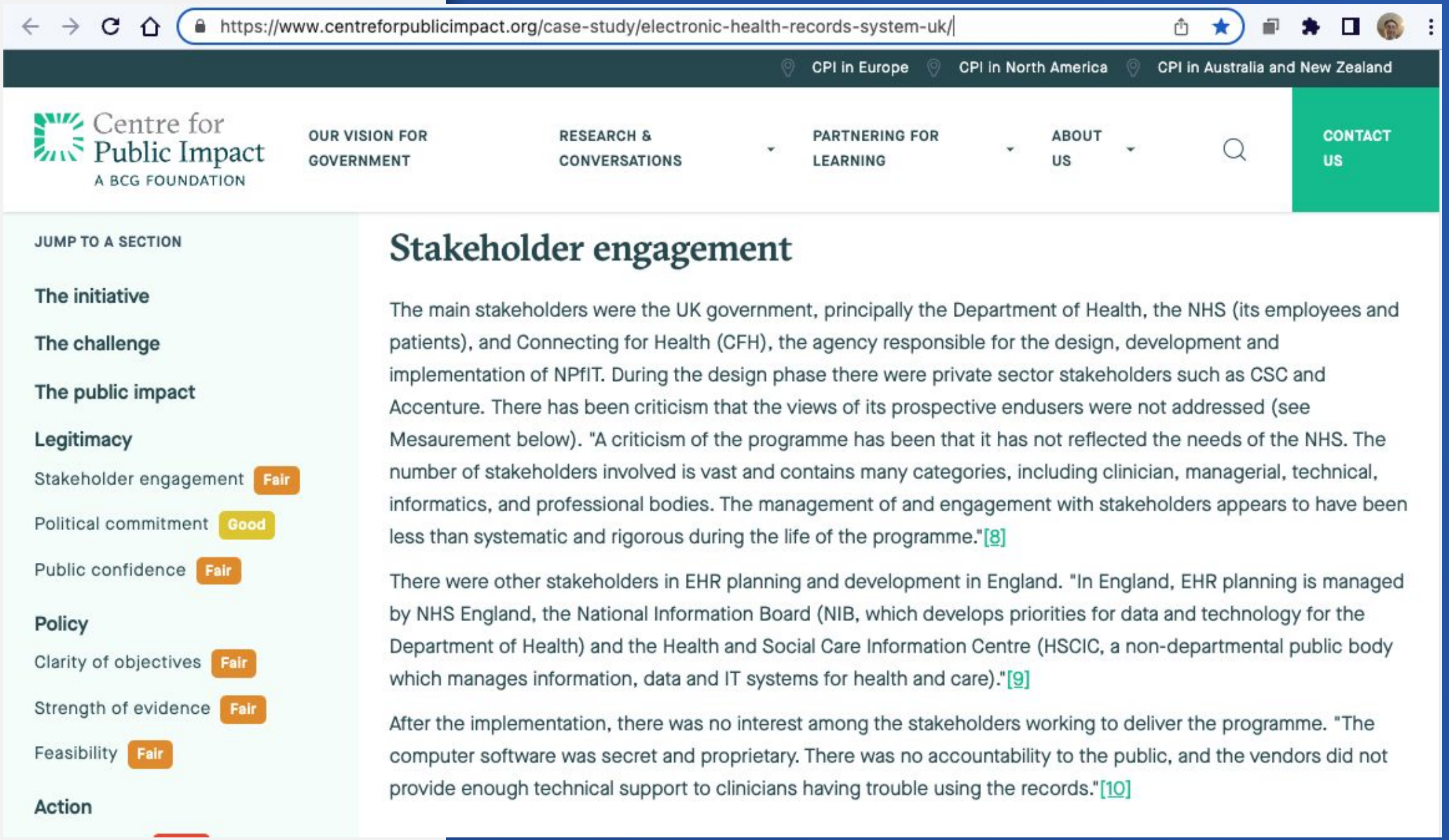
Legitimacy	Stakeholder engagement	Political commitment	Public confidence
	Fair	Good	Fair

Policy	Clarity of objectives	Strength of evidence	Feasibility
	Fair	Fair	Fair

Action	Management	Measurement	Alignment
	Weak	Fair	Weak

https://www.centreforpublicimpact.org/case-study/electronic-health-records-system-uk/

Leadership requires attention to Legitimacy, Policy and Action



The key challenges for implementing new systems

Notes from an exec with first hand Cerner and Epic implementation experience

- It's a massive institutional brain transplant, typically after go-live, much feels like going backward until stable enough to optimize
- There are often "necessary" changes in roles, responsibilities, and how work gets done
- Must balance maximal engagement with necessity to get decisions made with agility
- Must balance "convergence" with localization, endless trade-offs
- Must invest in data migration and chart-prep resources
- Challenging to identify and uncover for all "exception" scenarios in testing
- Training must be "team" focused, not just user focused
- **Must expect long post-go-live investments in adoption and operational evolution**; Optimization is an eternal process

Slide courtesy of Tonya Hongsermeier, MD, MBA

Premature Customization

This is a recurring issue across vendors:

-in most implementation projects, the users want to start torquing and customizing the system before they know how to operate the base system
- they are anchored to their current thinking about how workflow should work, and this can result in breaking system integration points, weakening the workflow reliability etc
- causing all sorts of mayhem beyond the usual unexpected stuff

It's **really important to stick to the recommended foundation workflows** and follow vendor leadership in determining what can be safely altered, what are the available options for customization, and then "move into the new house" and "use it for a few months" before you start major changes to workflow and process assumptions
- people ultimately will forget how they used to get their work done, how the teamwork used to unfold, adopting the new system, and develop new perceptions of how they want to optimize anchored in the new system assumptions of how to play to system strengths -

Above is pretty important - I have often told my users
-***" you don't know for sure how you want to perfect a system until you actually are living in it - before that, it's all abstract and your assumptions are probably not correct about how you think you want it to work",*** this is also why, after a go-live, it's a skeletal system with lots of little issues and gaps - and a lot of fixes that the organization has to staff up to quickly address (printers, role-based security settings, networks, devices, etc) and get the users learning the sport of using the system before progressing to major optimization efforts -

Correspondence with Tonya Hongsermeier, MD, MBA

VA* end-user experiences with “Cerner” elaborated in Inspector General Reports
(multiple reports, OIG, congressional hearings)

*Few is any complaints from DOD implementation of same software on same single instance.

Participants (users) expressed concerns with

- Training
- End user device integration
- Issues reporting and ticketing
- General User Sentiment: "Too Many Clicks, Too Slow"
- Slow System Response
- System Errors
- ” More Effort Required to Provide Less Care”
- Configuration Mapping to User Needs
- System Usability Issues
- Technical Findings
- Lights On Network / Performance Measurement

Management expressed concerns with

- Patient harm (OIG) “undefined queue”
  - failed to deliver more than 11,000 orders for specialty care, lab work and other services at Mann-Grandstaff VA Medical Center
- Pharmacy

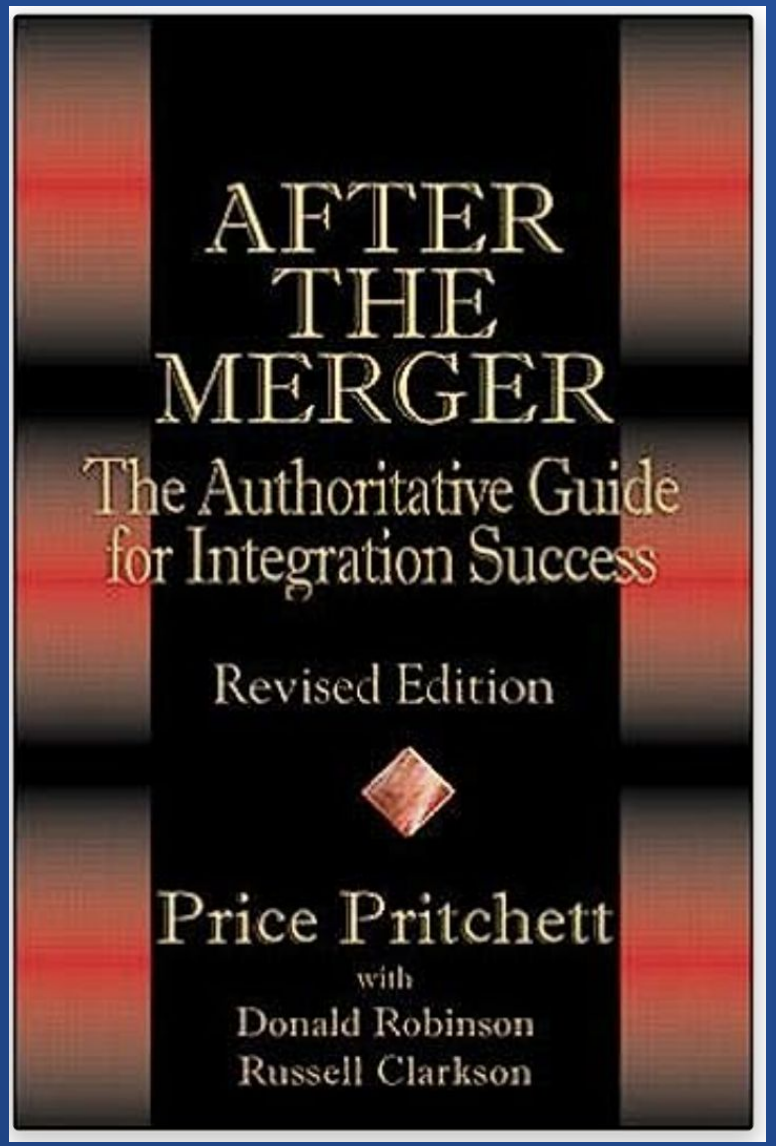
Oracle Health's plans as messaged in their HIMSS 23 booth

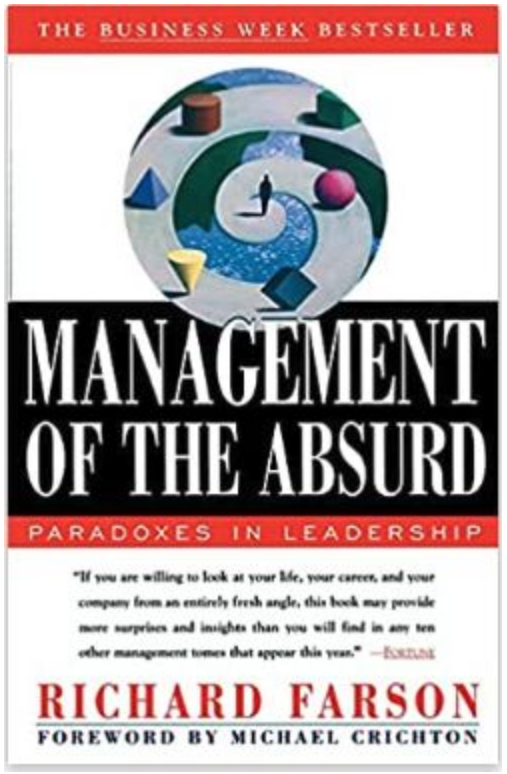
Oracle intends to become

- **primarily a cloud vendor**
- **application software provider**
- **platform provider for innovative solution providers**
- **(not interested**
  - **application development**
  - **implementation services**

Bonus Slides

Recap and Discussion: Applicant has knowledge, experience, attitude and interest in being successful with you and Oracle Cerner.





1. Opposite of a Profound Truth Is Also True --

2. Nothing Is as Invisible as the Obvious --

3. More Important a Relationship, the Less Skill Matters --

4. Once You Find a Management Technique That Works, Give It Up --

5. Effective Managers Are Not in Control --

6. Most Problems That People Have Are Not Problems --

7. Technology Creates the Opposite of Its Intended Purpose --

8. We Think We Invent Technology, but Technology Also Invents Us --

9. More We Communicate, the Less We Communicate --

10. In Communication, Form Is More Important Than Content --

11. Listening Is More Difficult Than Talking --

12. Praising People Does Not Motivate Them --

13. Every Act Is a Political Act --

14. Best Resource for the Solution of Any Problem Is the Person or Group That Presents the Problem --

15. Organizations That Need Help Most Will Benefit from It Least --

16. Individuals Are Almost Indestructible, but Organizations Are Very Fragile --

17. Better Things Are, the Worse They Feel --

18. We Think We Want Creativity of Change, but We Really Don't --

19. We Want for Ourselves Not What We Are Missing, but More of What We Already Have --

20. Big Changes Are Easier to Make Than Small Ones --

21. We Learn Not From Our Failures but from Our Successes --

and the Failures of Others --

22. Everything We Try Works, and Nothing Works --

23. Planning Is an Ineffective Way to Bring About Change --

24. Organizations Change Most by Surviving Calamities --

25. People We Think Need Changing Are Pretty Good the Way They Are --

26. Every Great Strength Is a Great Weakness --

27. Morale Is Unrelated to Productivity --

28. There Are No Leaders, There Is Only Leadership --

29. More Experienced the Managers, the More They Trust Simple Intuition --

30. Leaders Cannot Be Trained, but They Can Be Educated --

31. In Management, to Be a Professional One Must Be an Amateur --

32. Last Causes Are the Only Ones Worth Fighting For --

33. My Advice Is Don't Take My Advice.

Other Titles: Paradoxes in leadership