





# **Clinical System Retirement Strategies and Lessons Learned**

# Agenda

1. Introduction
2. Transition Timeline & Considerations
3. Migration vs Archival
4. Archival Requirements
5. Process. Process. Process.
6. Q & A Session

# Presenter



## Robert Downey

Vice President, Product Development

10 years of healthcare IT experience

20+ years of software engineering experience

Responsible for design and development of Galen's products and supporting technology, including the VitalCenter Online Archival solution.

# About Galen

## 2005

FOUNDED  
IN 2005

Galen has worked with 350+ customers in 46 states since being founded in 2005.



PRODUCTS  
& SERVICES

We offer professional services, technical and integration services and product technology solutions.

## Modern Healthcare

BEST PLACES  
TO WORK

We've been voted Modern Healthcare's Best Places to work 6 years running (2013-2018).



BEST IN KLAS

#1 HIT Implementation and Staffing & #1 Technical Services



DATA MIGRATION



INTEGRATION



EMR OPTIMIZATION



OPERATIONS  
SUPPORT



CLINICAL ARCHIVE

BOSTON

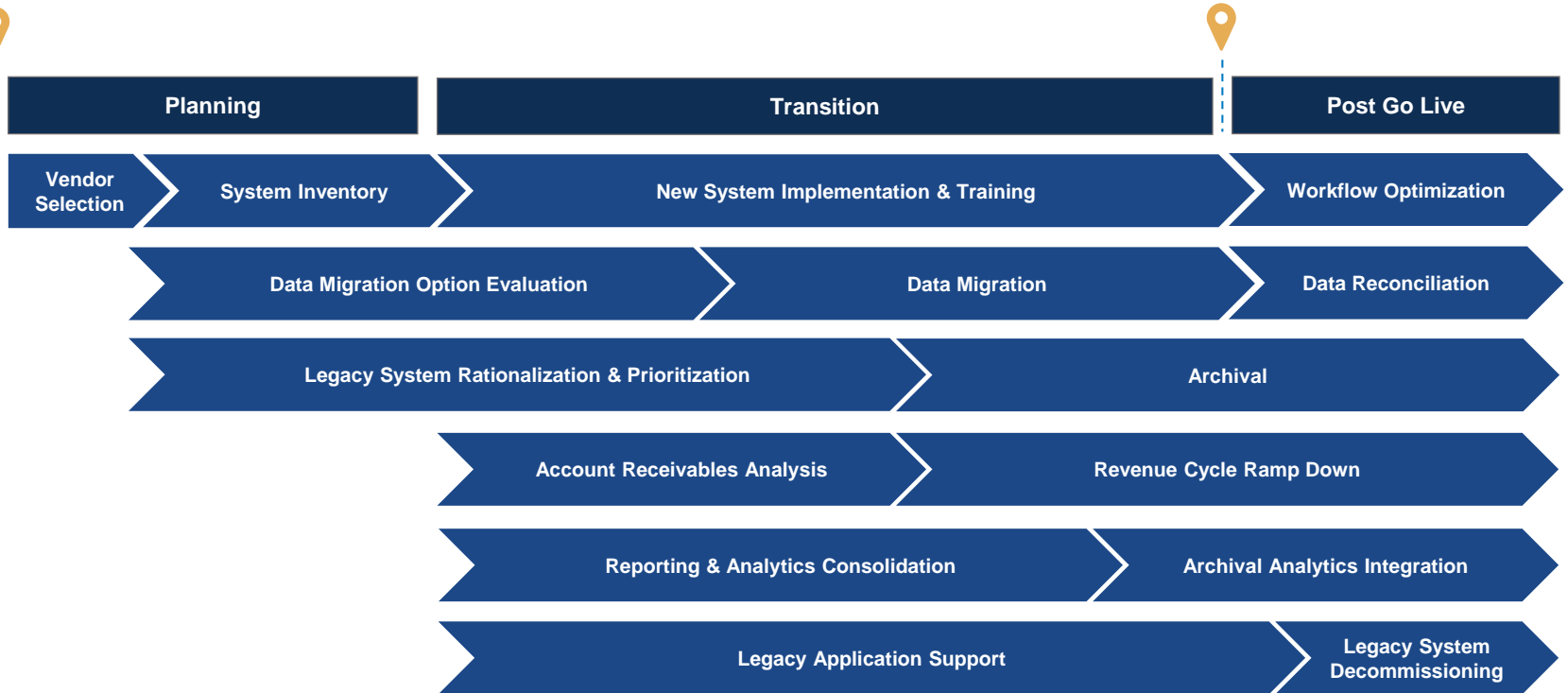
CHICAGO

BURLINGTON

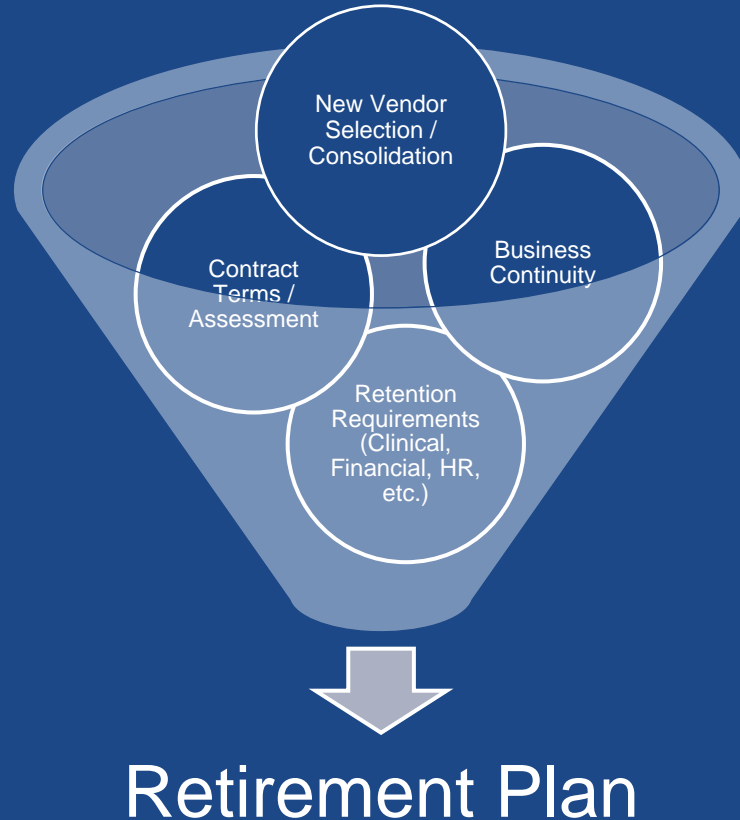
# System Transition Timeline

Merger / Acquisition /  
System "Upgrade"

New Systems Go-Live



# System Retirement Considerations



# Business Continuity

- Clinical
  - Continuity of Care
  - HMP
  - Future Orders
  - Quality Measures
  - Reporting / Analytics
- Financial
  - General Account Management
  - A/R Burndown
  - Patient Financing / Payment Plans
  - Reporting / Analytics
- HR
  - Employee Management
  - Onboarding / Offboarding
  - Reporting / Analytics

Legal ROI & Audits



# Clinical Data Migration

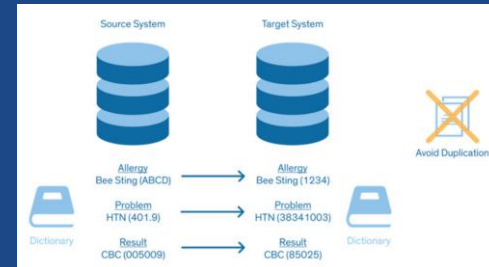
## Pros

- Minimize provider disruption
- Minimize data re-entry cost
- Workflow & automation continuity
- Analytics and CDS systems
- EMRs are not just data entry / storage systems

Factor	Typical Cost
Manual Chart Data Re-entry	\$8 to \$30 per chart <sup>iii</sup>
Manual Chart Data Re-entry Duration	17 to 64+ minutes per chart <sup>iv</sup>
Test Duplication & Treatment Delays	\$1,100 per incident <sup>v</sup>
Incomplete Chart Information	\$96 per patient <sup>vi</sup>

## Cons

- Migrations copy *and change* a subset of data
  - Limited by time range (last X years)
  - Limited by data set (problems, meds, etc.)
  - Limited by import mechanism (CCD vs HL7 vs direct database)
  - Limited by level of data fidelity (field/dictionary mapping, data types, versioning, etc.)
- “Dirty” data



# What Clinical Data Must Be Archived?

**Any information** that may have been used to make a **clinical decision** at a particular ***point in time***, as well as **any information** that shows **what and how care was delivered**<sup>1</sup>

1 – AHIMA, Fundamentals (<http://library.ahima.org/doc?oid=104008>)

# What Must Be Archived?

- **Legal Medical Record**
  - Data supporting clinical decision making
  - Data documenting care that was delivered
  - Must be archived
- **Designated Record Set**
  - Data not directly related to patient care
  - Might need to be archived

# What Must Be Archived?

- **Commonly missed data sets**
  - Contextual audit trails
  - Referenced data in ancillary systems
    - PACS / Lab / Radiology / etc.
    - Document management systems
    - Practice management / revenue cycle systems
    - ERP / HR
    - Paper records
  - **Data change / version history**
  - **Infrequently used / invisible fields / meta data**

# How Long Must Data Be Archived?

- Depends on...
  - Patient Age
  - Historical payers (Medicaid / managed contracts)
  - Acute vs ambulatory care
  - State in which care was delivered
  - Last chart modification or encounter
- State by state rules are largely based on the statute of limitations

# How Long Must Data Be Archived?

Location	Medical Doctors	Hospitals	Location	Medical Doctors	Hospitals
<b>Federal (HIPPA Security Rule)</b>	<b>6 Years</b>	<b>6 Years</b>	Missouri	7 Years	10 Years (Age 23)
<b>Federal (CMS / Managed Care)</b>	<b>10 Years</b>	<b>10 Years</b>	Montana	6 Years	10 Years (Age 28)
Alabama	Indefinitely	6 Years (Age 21)	Nebraska	6 Years	10 Years (Age 22)
Alaska	6 Years (Age 21)	6 Years (Age 21)	Nevada	6 Years	6 Years
Arizona	6 Years	6 Years (Age 21)	New Hampshire	7 Years	7 Years (Age 19)
Arkansas	6 Years	10 Years (Age 20)	New Jersey	7 Years	10-20 Years (Age 23)
California	6 Years	7 Years (Age 21)	New Mexico	8 Years (Age 20)	10 Years (Age 19)
Colorado	6 Years	10 Years (Age 28)	New York	6 Years (Age 19)	6 Years (Age 21)
Connecticut	7 Years	10 Years	North Carolina	6 Years	11 Years (Age 30)
Delaware	7 Years	6 Years	North Dakota	6 Years	10 Years (Age 21)
District of Columbia	6 Years (Age 21)	10 Years	Ohio	6 Years	6 Years
Florida	6 Years	7 Years	Oklahoma	6 Years	6 Years (Age 21)
Georgia	10 Years	6 Years (Age 23)	Oregon	6 Years	10 Years - Permanently
Hawaii	7-25 Years (Age 25)	7-25 Years (Age 43)	Pennsylvania	7 Years (Age 21/22)	7 Years (Age 25)
Idaho	6 Years	6 Years	Puerto Rico	6 Years	6 Years
Illinois	6 Years	10 Years	Rhode Island	6 Years	6 Years (Age 23)
Indiana	7 Years	7 Years	South Carolina	10-13 Years	10 Years (Age 19)
Iowa	7 Years (Age 19)	6 Years	South Dakota	6 Years	10 Years (Age 20)
Kansas	10 Years	10 Years (Age 19)	Tennessee	10 Years (Age 19)	10 Years (Age 19)
Kentucky	6 Years	6 Years (Age 21)	Texas	7 Years (Age 21)	10 Years (Age 20)
Louisiana	6 Years	10 Years	Utah	6 Years	7 Years (Age 22)
Maine	6 Years	7 Years (Age 24)	Vermont	6 Years	7 Years (Age 22)
Maryland	6 Years (Age 21)	6 Years (Age 21)	Virginia	6 Years (Age 18)	6 Years (Age 23)
Massachusetts	7 Years (Age 9)	30 Years	Washington	6 Years	10 Years (Age 21)
Michigan	7 Years	7 Years	West Virginia	6 Years	6 Years
Minnesota	6 Years	Permanently	Wisconsin	6 Years	6 Years
Mississippi	6 Years	7-10 Years (Age 25)	Wyoming	6 Years	6 Years

# Process. Process. Process

- Definition
- Data/System Discovery
- Prioritization
- Extraction & Validation
- Stakeholder Engagement

# 5 Point Archival Comparison Methodology



**Extraction / Load Implementations**



**Data Visualization Implementations**



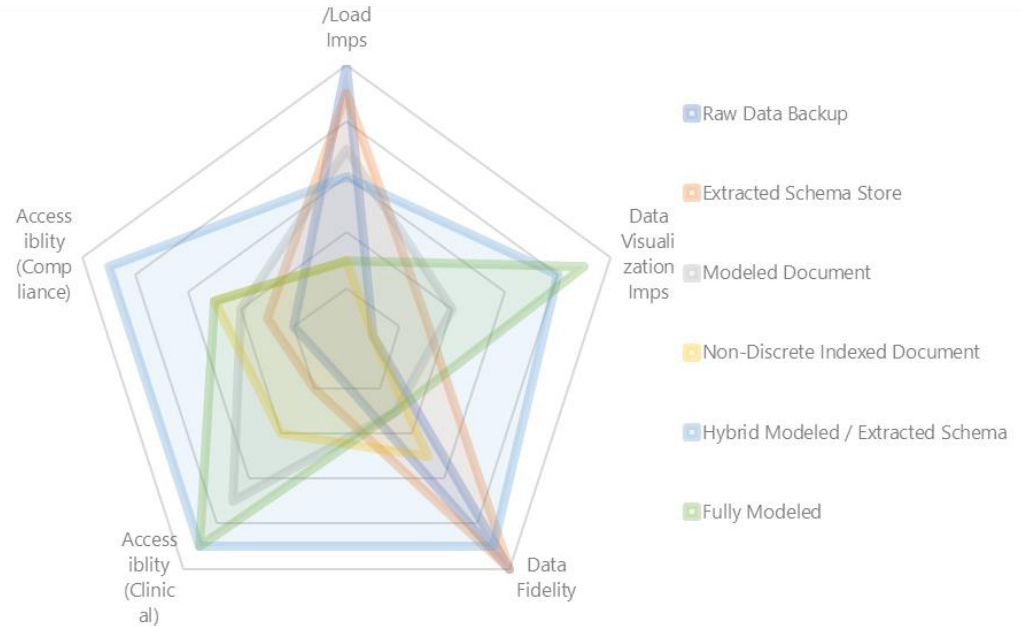
**Data Fidelity**



**Accessibility (Clinical)**



**Accessibility (Compliance)**



# Other Solution Considerations

- Single Sign On / EMR Integration
- Reporting / Analytics Access
- Vendor Contracting
  - Cost Model (Storage? Patient count? Other?)
  - Custodial relationship
  - Exit clause
- Hosting
  - Local
  - Cloud
- Solution Security and Data Integrity

[http://wiki.galenhealthcare.com/index.php/Health\\_IT\\_Security](http://wiki.galenhealthcare.com/index.php/Health_IT_Security)

# Q&A Session

# Thank You!