



February 2024

Radiology Equipment Non-Obsolescence Plan



University Hospitals

The Science of Health. The Art of Compassion.



GE HealthCare

Learning Objectives

- ❖ Understand current state of healthcare/radiology equipment in a large academic healthcare system
 - ❖ Understand planning equipment configuration and sequencing steps
- ❖ Understand lessons learned during our journey including importance of collaborative approach among stakeholders
 - ❖ Understand next steps to crossing our finish line



\$5.4B

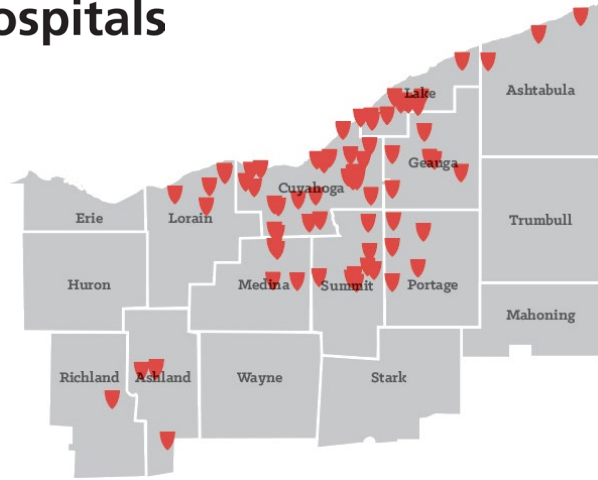
**System
Annual Revenue**

~1 million

**Unique patients
each year**

30,000

**Physicians,
nurses, and
employees**



- 2nd largest health care employer in Ohio; 7th largest employer in Ohio
- 20+ hospitals, including 5 joint ventures
- 50+ outpatient health centers and 200+ physician offices
- Forbes' 2023 Best Large Employer: #1 health system in Healthcare & Social sector in Ohio
- Fortune 2023 Most Innovative: #1 health system in Ohio and #5 among all companies in the state

University Hospitals Cleveland Medical Center



- Flagship quaternary care and academic medical center
- 1,220 residents and fellows & 120 training programs
- Affiliated with NEOMED, Case Western Reserve University, Oxford University, Technion Israel Institute of Technology, National Taiwan University
- Top funded research program in the nation
- \$177.2 million research portfolio
- 3,400+ active clinical research studies

GE HealthCare is at the forefront of Care Delivery across the patient journey

Four Focused & Integrated Segments

Imaging



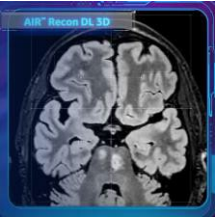
Revolution Apex



SIGNA™ (1.5 and 3T)



Omni Legend (PET / CT)



AIR™ Recon DL



OEC 3D

Ultrasound



Voluson Expert 22



Vivid Cardiology



Vscan Air

Patient Care Solutions (PCS)



Portrait Mobile^{a)}



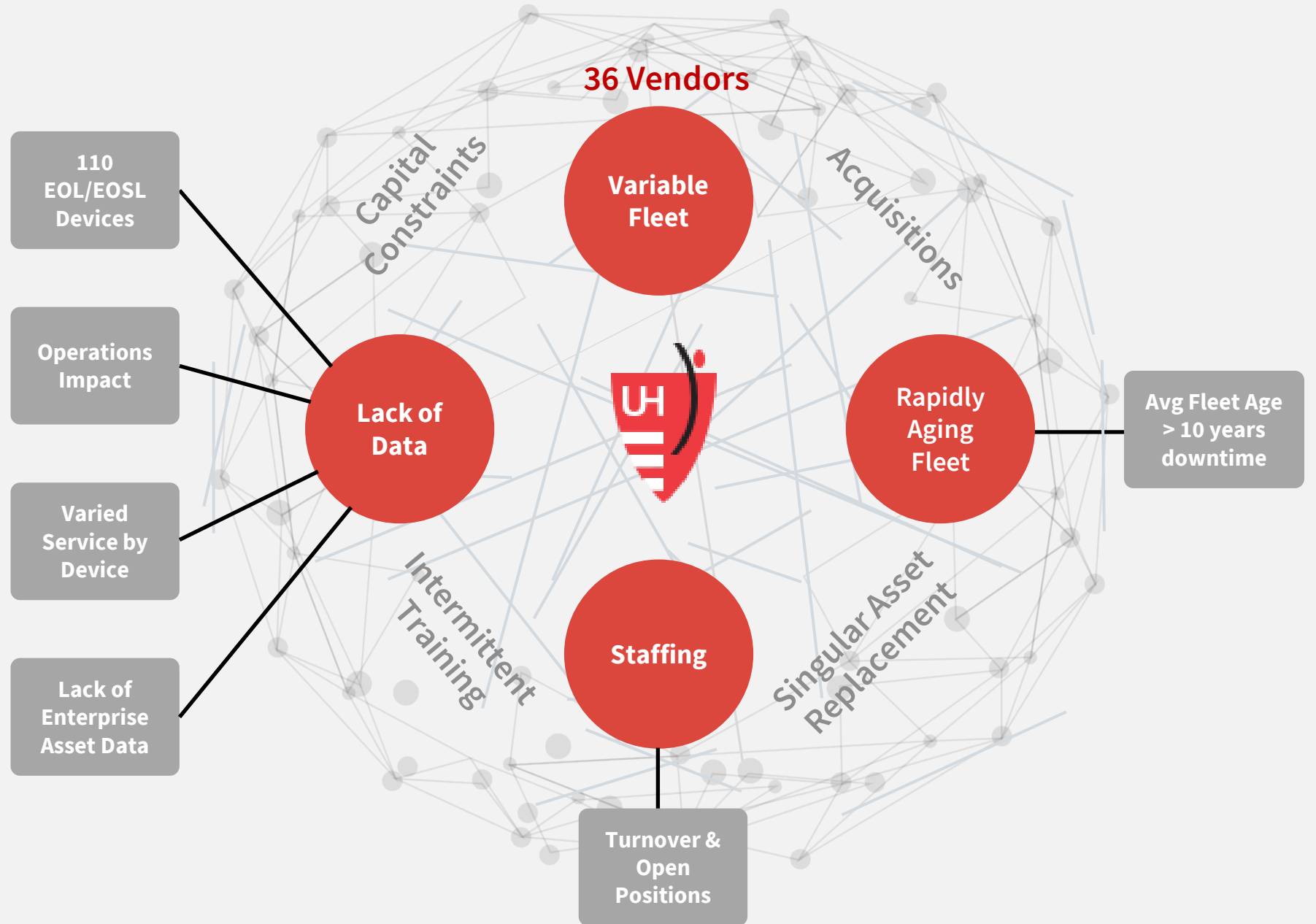
End-tidal Control Software^{a)}

Pharmaceutical Diagnostics (PDX)



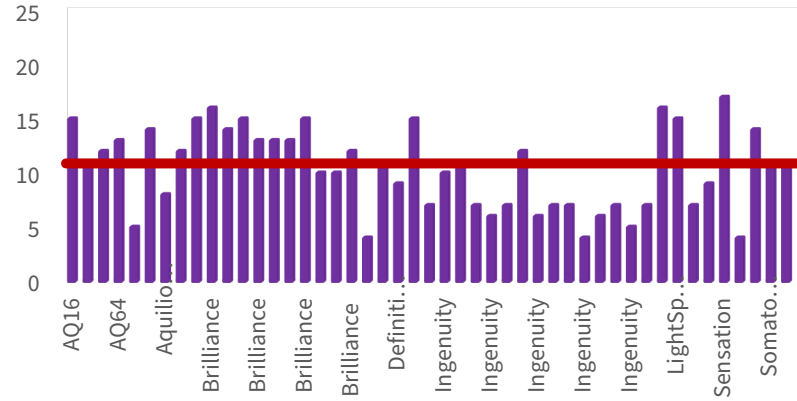
CT Motion Injector

Enterprise Imaging

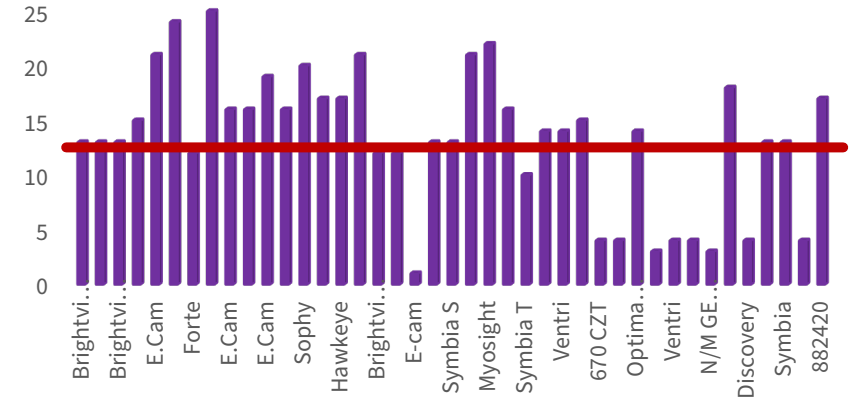


UH 2021 Radiology Asset Environment

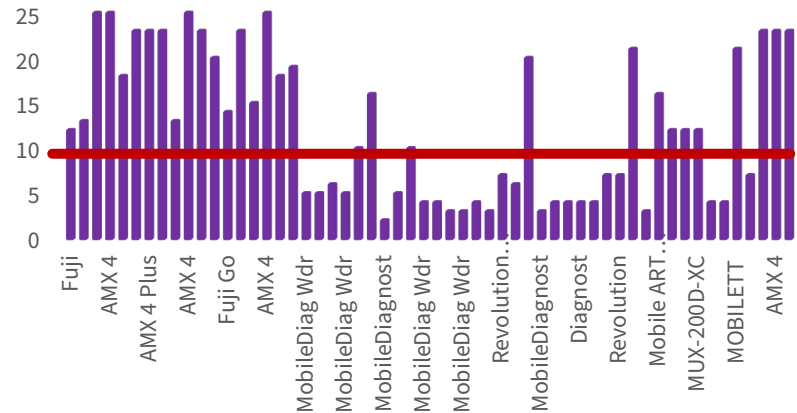
UHHS CT Fleet by Age
53% Fleet Greater that 10 Years Old
50% Fleet Past Useful Lifecycle



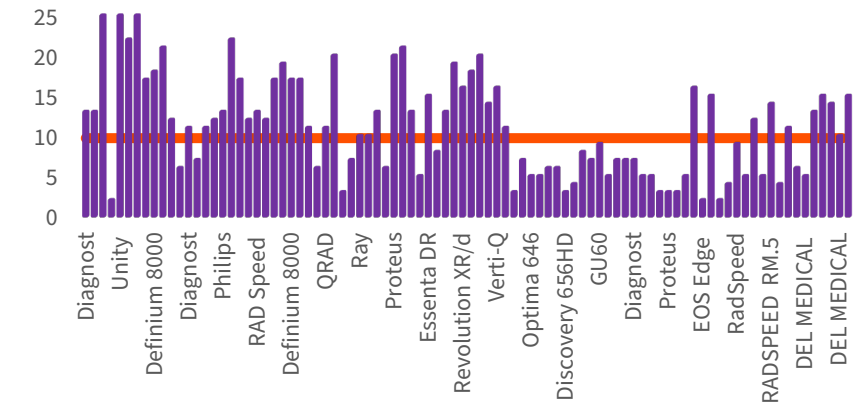
Nuclear Medicine Fleet by Age
74% Fleet Greater that 10 Years Old
74% Fleet Past Useful Lifecycle



Portable XR Fleet by Age
52% Fleet Greater that 10 Years Old
61% Fleet Past Useful Lifecycle



Fixed XR Fleet by Age
60% Fleet Greater that 10 Years Old
53% Fleet Past Useful Lifecycle



Achieving Efficiency Requires a Focus on Four Critical Areas

01 Technology Plan

Installed base assets by location, vendor and “scored” by age, clinical capability, reliability, EOSL, etc.

02 Market Data and Analytics

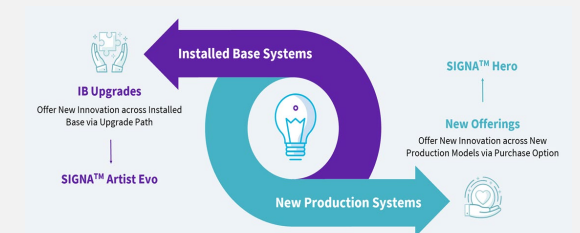
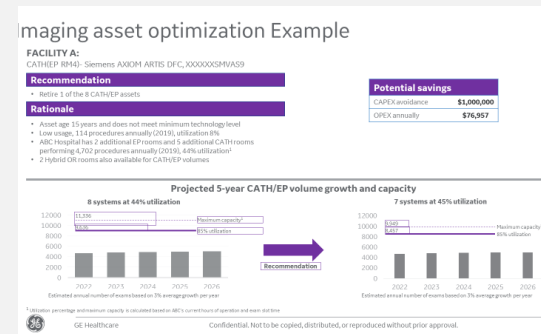
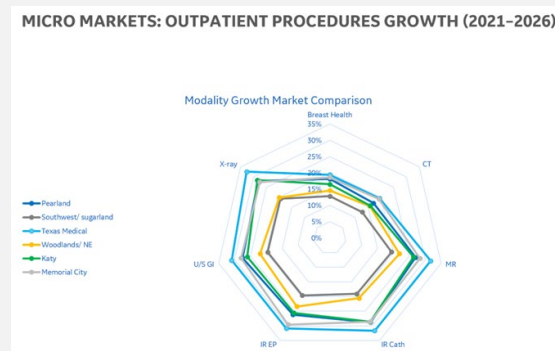
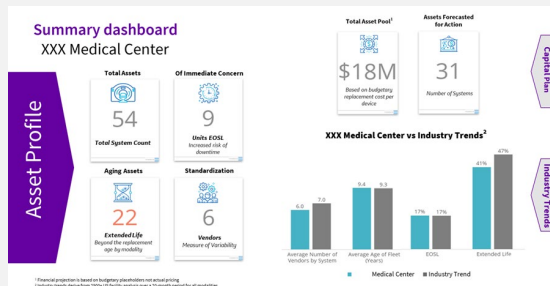
Identify market opportunities for expansion/consolidation. Utilize data to determine right asset, location & configuration

03 Optimization

Process and throughput engineering optimization based on utilization, procedure volume, clinical gaps and growth

04 Bi-Directional Innovation

Invest in assets that are built on platforms that allow for in-field upgrades to current technology.

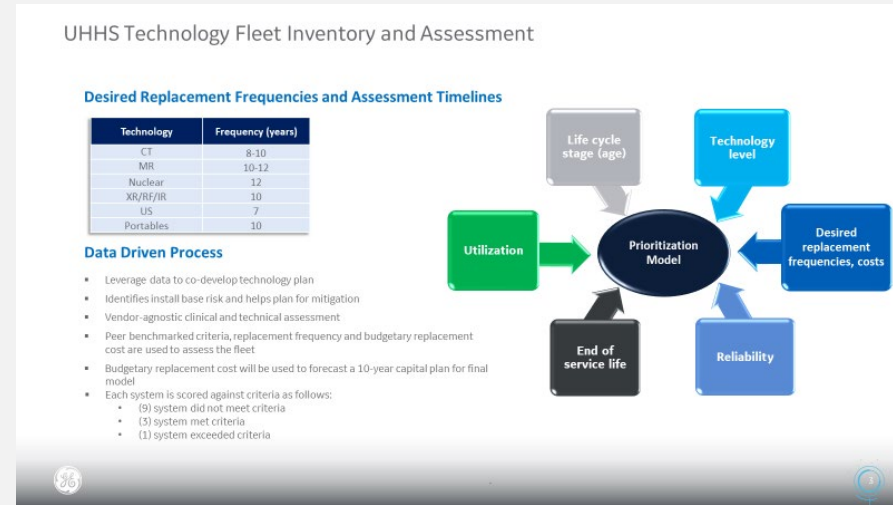


Technology Planning with GE HealthCare

- ✓ In 2020-21, 509 assets were reviewed and scored
- ✓ In 2021-22, 621 assets were reviewed
- ✓ Onsite Physical Inventory: 5 GEHC FTEs for 13 days

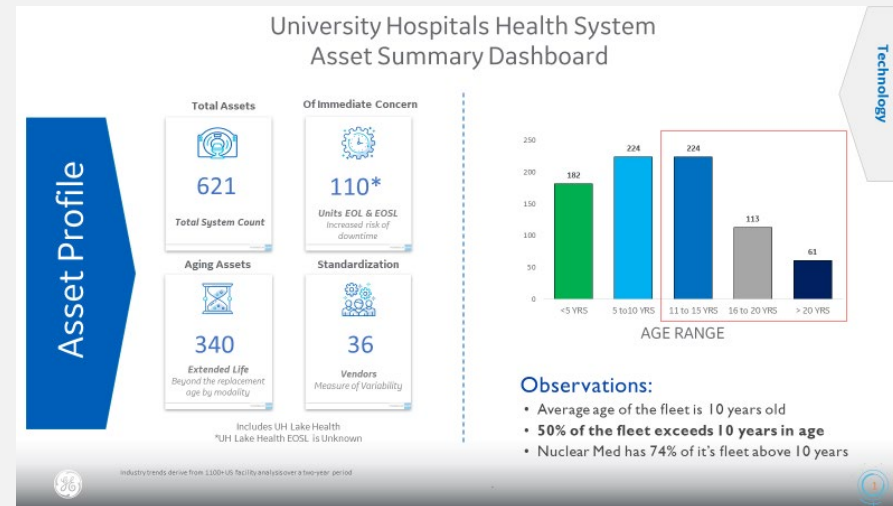
Observation Examples

- No consistent asset marker to ensure data hygiene
- Non-operational assets included in inventory
- No centralized repository for inventory
- PM labels inconsistent and some expired



Radiology Inventory Asset Assessment

Facility	Department/Location	Modality	Model	Company/OEM	Install Date	Target Replacement Age (Yrs)	Age (Years)	Technology Score	Life Cycle Score	Utilization Score	EOSL Score	Reliability Score	Weighted Score
CMS/Seidman Diagnostic X-Ray (X)	Radiology	XR-PORT	AMX 4 Plus	GE	7/1/1999	10	23	9	9	3	9	3	77
CMS/Seidman Diagnostic X-Ray (X)	OR	XR-PORT	AMX 4 Plus	GE	3/1/1999	10	23	9	9	3	9	3	77
CMS/Seidman Diagnostic X-Ray (X)	OR	XR-PORT	AMX 4 Plus	GE	7/1/1999	10	23	9	9	3	9	3	77
UH Portage Imaging Center - Street	Radiology	XR-PORT	AMX 4	GE	1/1/2009	10	13	9	9	3	9	3	77
UH Bedford Medical Center	Radiology	XR-PORT	AMX 4	GE	9/1/1996	10	26	9	9	3	9	3	77
UH Richmond Medical Center	Radiology	XR-PORT	AMX 4	GE	9/8/1999	10	23	9	9	3	9	3	77
UH Portage Medical Center	Radiology	XR-PORT	AMX 4	GE	1/1/2002	10	20	9	9	3	9	3	77
UH Conneaut Medical Center	Radiology	RF-C-ARM	9600	GE	6/1/2006	10	16	9	9	3	9	3	74
UH Parma Medical Center	Radiology	XR-PORT	Fuji Go	Fuji	3/1/2008	10	14	9	9	3	9	3	74
UH Ashtabula Health Center	Radiology	CT	Emilon	Siemens	6/1/2007	8	15	9	9	3	9	3	74
UH Andover Health Center	Radiology	CT	LightSpeed 16	GE		8	No data	9	9	3	9	3	74
UH Elyria NOH Olmsted Falls Health	Radiology	XR-FIXED	Genrad	Ing Retrofit - R4	1/1/1988	10	34	9	9	3	9	3	74
UH Portage Medical Center	Radiology	NM	Aptus	Philips	12/1/2001	12	21	9	9	3	9	3	74
UH Walpole Health Center	Radiology	MR	Achieva 1.5T	Philips		10	No data	9	9	3	9	3	74
CIM MRI	MC MRI (PET/MR)	PET-MR	Ingenuity 3T	Philips	12/1/2011	10	11	9	9	3	9	3	74
UH Parma Medical Center	Radiology	MAM-IMG	MIV-Stereotactic	Hologic	3/1/2010	7	12	9	9	3	9	3	74
UH Conneaut Medical Center	Radiology	MR	Axiom/atom Small	Siemens	1/1/2007	10	15	9	9	3	9	3	74
UH Conneaut Medical Center	Radiology	RF-FIXED	Sireskop	Siemens	8/1/2001	10	21	9	9	3	9	3	74
CMS/Seidman Diagnostic X-Ray (X)	Radiology	RF-C-ARM	Mini	GE	11/1/2005	10	17	9	9	3	9	3	74
UH Portage Medical Center	Radiology	XR-PORT	AMX 4	GE	11/25/1999	10	23	9	9	3	9	3	74
UH Portage Medical Center	Radiology	XR-PORT	AMX 4	GE	4/1/2007	10	15	9	9	3	9	3	74
UH Twinsburg Health Center	Radiology	XR-FIXED	Definium 8000	GE		10	No data	9	9	3	9	3	74
Rocky River	Radiology	XR-FIXED	TBD	Amrad		10	No data	9	9	3	9	3	73
UH Geneva Medical Center	Basal center	XR-PORT	AMX 4	GE	7/1/1991	10	31	9	9	3	9	3	73
UH Elyria NOH Sandusky Health C	Radiology	ULTRASOUND	IE33	Philips	2/1/2006	7	16	9	3	9	3	71	
CMS/Seidman Diagnostic X-Ray (XR)	RF-C-ARM	BV Pulsara	Philips	11/6/2007	10	15	9	3	9	3	9	3	71
UH Elyria NOH Gates Health Cente	Radiology	ULTRASOUND	LE33	Philips	6/1/2007	7	15	9	3	9	3	71	
CIM Breast Center	OR	MAM-STEREO	Lead	Hologic	3/1/2011	7	11	9	3	9	3	71	
UH Chagrin Health Center	Radiology	XR-FIXED	Definium 8000	GE	12/1/2005	10	17	9	9	3	9	3	70
UH Ahuja Medical Center	Radiology	NM	BrightView	Philips	9/1/2010	12	12	9	9	3	9	3	70
UH Avon Health Center	Radiology	MR	Achieva 1.5T	Philips	6/28/2006	10	16	9	9	3	9	3	70
UH Elyria Medical Center	Radiology	ULTRASOUND	IL22	Philips		7	No data	9	9	3	9	3	70
UH Elyria Medical Center	Radiology	ULTRASOUND	IL22	Philips	10/1/2010	7	12	9	9	3	9	3	70
UH Ahuja Medical Center	Radiology	RF-FIXED	Multiagnost	Philips	9/1/2010	10	12	9	9	3	9	3	70
UH Ahuja Medical Center	Radiology	NM	BrightView	Philips	10/1/2010	12	12	9	9	3	9	3	70



Command Center Impact for UH

What is Command Center?

Level 2 Software for real-time situational awareness, coordination & optimization

Hub for culture, optimization & learning



What impact has been documented?

\$20M

Annual Financial Benefit

Reduced mouse clicks per day	5,000- 400,000
Reduced ALOS (or similar)	½ - 1 Day
More balanced system utilization	12% - 20%
Increased average census	2% - 6%
Reduced ED waiting	23-35%
Reduced CT & MR Order-to-Result	10% - 25%
Increased OR utilization	5 - 15 pts
Reduced code blues	40%
Financial Benefit / Year	\$20M

Documented by Johns Hopkins, Humber River, AdventHealth, OHSU Health, Tampa General, Virginia Mason Franciscan and Duke Health. Details at www.gehcommandcenters.com.

Targeted impact at UH?

Expected to generate \$40M-\$60M in annual benefit from LOS & growth

- ✓ Streamline daily management of UH Radiology
- ✓ Improve OP radiology utilization
- ✓ Improve radiology-inpatient coordination
- ✓ Enable improvement in inpatient length-of-stay (with broad adoption)

Transforming our Radiology Systems of Care

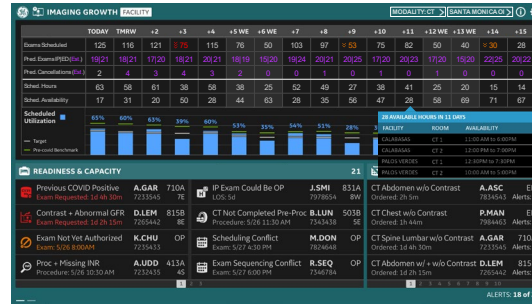
Where we are today ...

Aim to be highest value, lowest cost provider and fulfill our mission and vision

Current Radiology Fleet

After years of acquisitions, transactional replacements, and capital constraints

- ✓ 36 Manufacturers
- ✓ Aging rapidly
 - Average 10+ years old
 - 110 devices are end of life/end of service life



Integrated Radiology Command Center with **real-time, actionable insights** aimed at OP growth, IP delay reduction, and future innovation



Intelligent Radiology fleet replacement and evergreen upgrade subscriptions enabled with **Artificial Intelligence and Machine Learning**



Transformational accelerators, including consultative market intelligence & fleet planning, comprehensive service, onsite scientific & clinical experts, continuous medical education

Value of Partnering

01 Financial

- **GE Radiology Command Center**
- **Capital avoidance**
- **Radiologist productivity**
- **10-year payment model**

02 Operational

- **Improved coordination**
- **Technologists able to move between facilities seamlessly**
- **Efficient workflows and standardized exam protocols**
- **Mobile equipment**
- **Local strategic stocking**
- **24/7 service coverage**
- **Preventative maintenance**
- **Service training for UH biomedical engineering**

03 Clinical & Scientific

- **Software updates and hardware upgrades**
- **Robust platform for care innovation**
- **Onsite Imaging PhD Expertise**
- **Continuous onsite and remote clinical education**

04 Strategic

- **System strategic plan**
- **Improve access and patient experience**
- **Risk mitigation**
- **Service Delivery Leader**
- **Service Program Manager**

¹Assuming UH 2021 annualized volumes and outpatient reimbursement by modality in Cleveland regional market; Source: UH Jan-Nov 2021 Imaging Volumes

²Assuming the Nuclear Medicine consolidation from 39 to 29 systems

³Assuming no rigging/crane services

⁴Assuming availability

⁵Assuming GE CT, Nuclear, MR