

DEPARTMENT OF RADIOLOGY



LDR609-OA: Health Care Systems Management
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your health
Our Passion

**ADVANCED IMAGING SERVICES
FOR EARLY DETECTION WITH
COMPASSIONATE CARE**

Business Plan: 2D to 3D Mammotomsynthesis Upgrade



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3D Breast Tomosynthesis McDonough District Hospital

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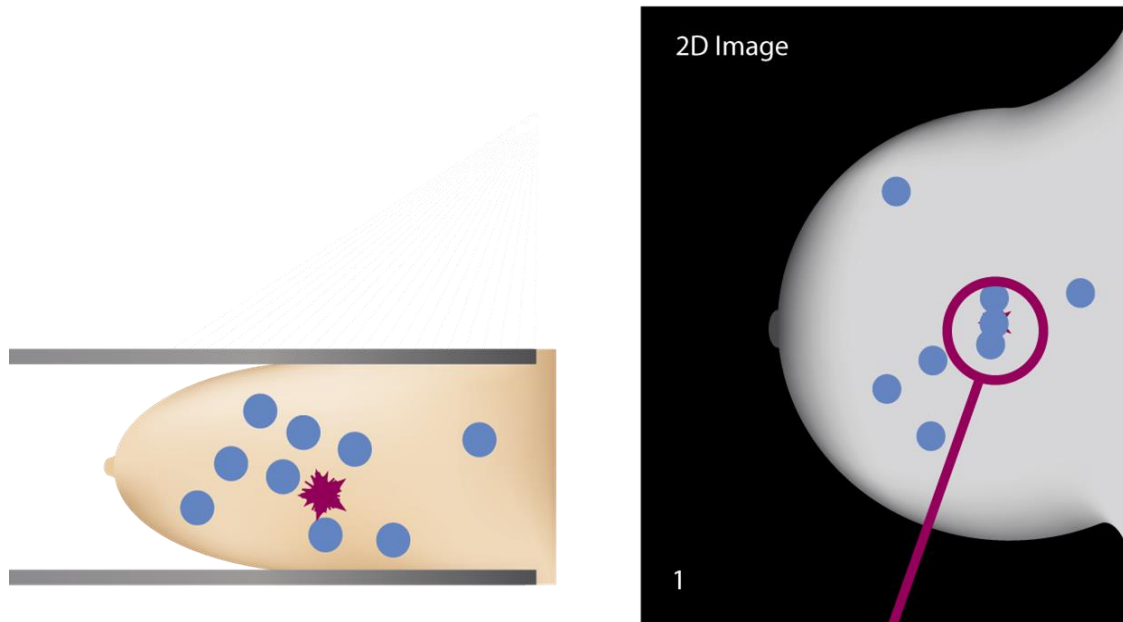
INTRODUCTION

- Residents of McDonough County, IL that prefer 3D mammography currently are traveling to the cities of Galesburg, Peoria, Quincy, or Springfield, IL to facilities that offer the 3D mammogram technology.
- 3D mammogram (breast tomosynthesis) is an imaging test that combines multiple breast X-rays to create a three-dimensional picture of the breast. 3D mammography is used to look for breast cancer in people who have no signs or symptoms.
- Physicians in the McDonough Medical Group (MMG) are concerned that when their patients leave the health system for 3D mammography, some switch their primary care physician and leave the MMG practice.



Why Upgrade from 2D to Breast Tomosynthesis 3D Mammography?

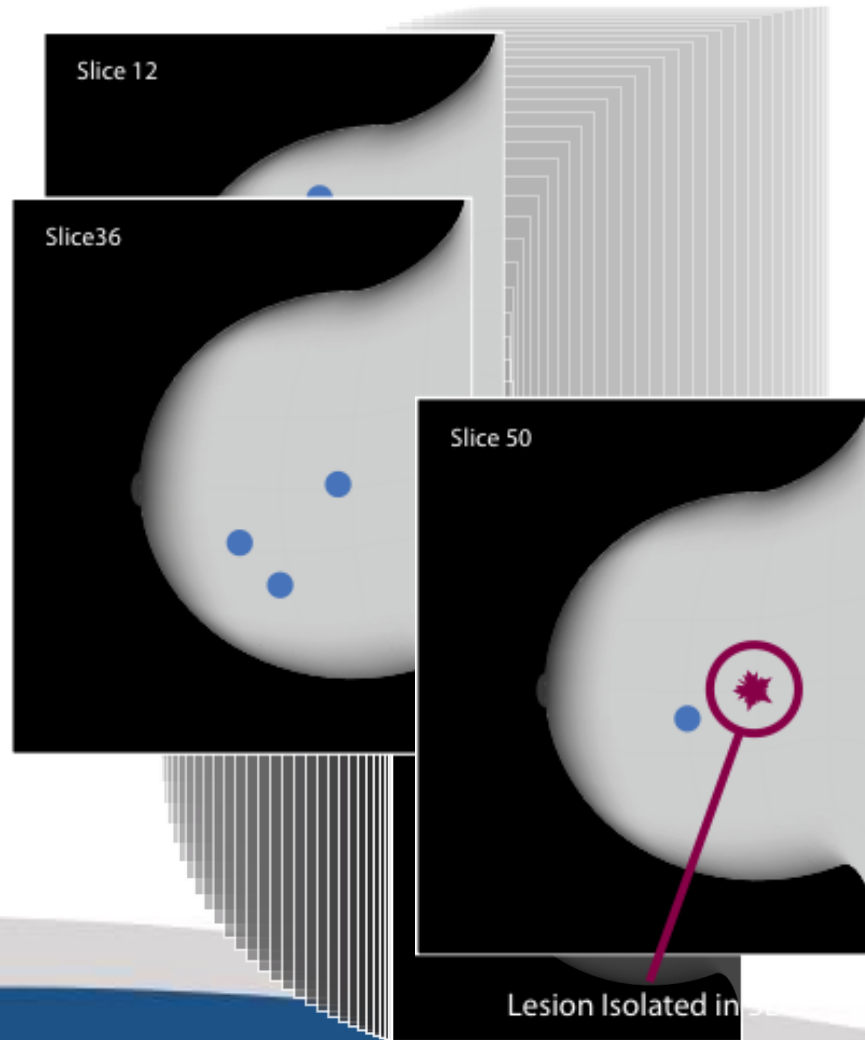
- Tissue superimposition hides pathologies in 2D
- Tissue superimposition mimics pathologies in 2D



Lesion Superimposed

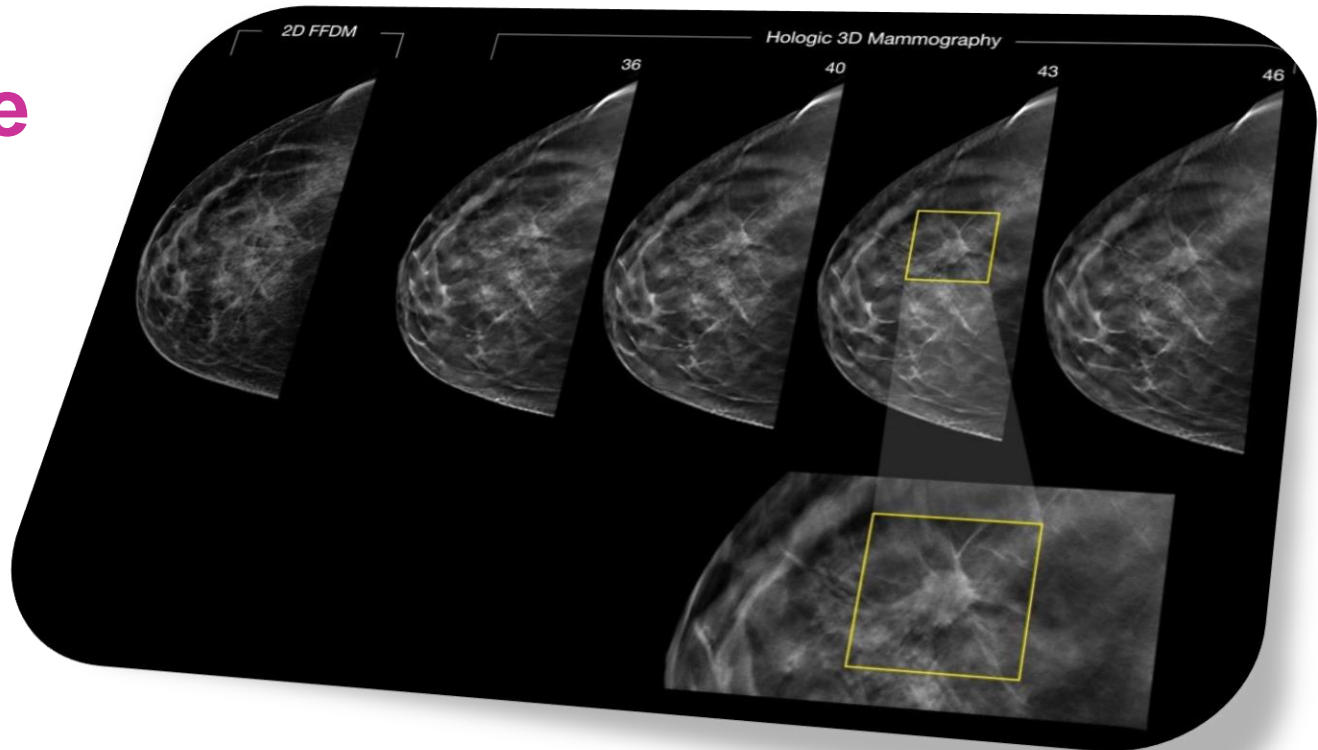


3D Improves Visibility by Reducing Tissue Superimposition



3-D Image

The multiple pictures (scans) create a layer-by-layer view of the breast tissue





Better Sensitivity

Tomosynthesis (3-D Mammography)



- Mammography unit will enable several views of the breast
- Camera moves in an arc over the breast
- Takes 15 mini-pictures within 4 seconds



Project Scope and Narrative

- Sixteen-week project to upgrade the current Hologic 2D mammography unit to the latest version of Hologic's 3D mammography system.
- Project team lead by the Director of Radiology and the project manager from Hologic.
- The project team will consist of seven interdependent phases developed prior to the start of the project



Financials

Revenue Stream

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Exams per year (5% annual volume increase)	2,600	2,730	2,867	3,010	3,050	14,256
Revenue per year	780,000.00	832,650.00	880,169.00	918,050.00	930,250.00	4,341,119.00

Operational Expenses

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Employee costs incl. Benefits	236,870.40	236,877.50	\$236,962	\$237,004	\$237,103	\$711,068
Facility costs	\$0	\$0	\$0	\$0	\$0	\$0
Operating costs	\$0	\$0	\$0	\$0	\$0	\$0
Service costs	\$0	\$58,000	\$58,000	\$58,000	\$58,000	\$232,000
Total Operational Expenses	\$0	\$58,000	\$294,962	\$295,004	\$295,103	\$943,068

Capital expenses, depreciation, etc.

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Depreciation Equipment (if cash deal)	\$0	\$0	\$0	\$0	\$0	\$0
Other depreciation	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$700,000
Lease payments (if FMV or CL)	\$0	\$0	\$0	\$0	\$0	\$0
Total CapEx, depreciation, etc.	\$509,402	\$509,402	\$509,402	\$509,402	\$509,402	\$2,547,008

Profit (before taxes)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Profit before taxes (negative in red)	\$270,598	\$265,248	\$75,806	\$113,644	\$125,746	\$ 851,042

Profit (after taxes)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Income Tax	\$0	\$0	\$0	\$0	\$0	\$0
PROFIT after taxes (negative in red)	\$1,015,535	\$982,982	\$1,136,520	\$1,301,996	\$1,479,983	\$5,917,016

Cash Flow

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Cash Flow (negative in red)	\$574,010	\$1,231,363	\$1,384,802	\$1,550,174	\$1,728,393	\$6,468,743

Return on Investment/ Present Value

Net present value of cash flow	\$851,042
5 Year Average Annual Net Revenue	\$170,208
Internal Rate of Return (IRR)	n/a
Return on Investment:	2.36 years



Project Timeline

PHASE	PLAN WEEK START	COMMENTS
PHASE I: Procurement Strategy Phase	1	Develop the RFP documentation, select a vendor and finalize the purchase agreement.
PHASE II: RFP Development Phase	4	Vendor to configure the 3D mammography solution.
PHASE III: Implementation Phase	6	Hologic PM to submit drawings of the mammography suite.
PHASE IV: Initiation Phase	12	The project team functions to keep project task activities going per the timeline, resolve issues and activate contingency plans
PHASE V: Preparation Phase	13	Project implement new workflows, ensure education and training is in progress.
PHASE VI: Deployment Phase	13	Hardware delivery and protocols developed.
PHASE VII: Verification/Acceptance	16	All stakeholders are to agree and abide by a well-documented and well-designed acceptance procedure.

THE JOURNEY HAS BEGUN!



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BE FEARLESS.

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October is
Breast Cancer
Awareness Month

Schedule your annual mammogram *Today!*

It's *15 minutes* that just might save your life.



Questions & Answers



References

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