

Transforming Healthcare: Breast Cancer Care

The Gundersen Lutheran Norma J. Vinger Center for Breast Care's interdisciplinary model of caring for breast cancer

patients has the potential to save an estimated \$4.15 billion dollars in healthcare costs if it is implemented on a national scale. Gundersen Lutheran's breast care model is centralized and coordinated, meaning:

- Breast tumors are detected when they're 24% smaller
- A discovery-to-treatment timeline that's 2.5 times faster than traditional models
- A 35% reduction in total treatment cost

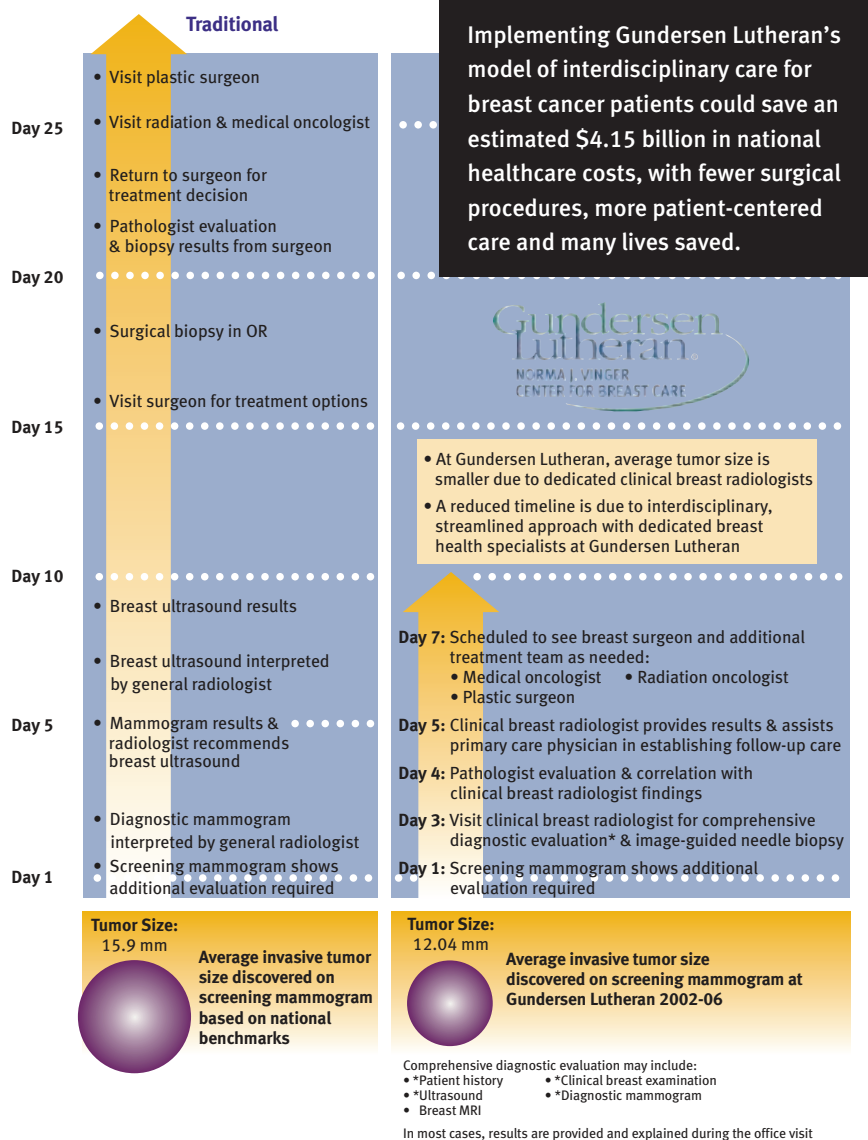
Gundersen Lutheran's unique approach to breast cancer care starts with screening mammography. All mammograms are read by a limited number of radiologists who sub-specialize in breast care, which means they have more experience detecting very small tumors and can detect lumps sooner.

When breast cancer is detected having multiple departments available to provide breast care—the traditional approach—isn't enough. Gundersen Lutheran's interdisciplinary model of care surrounds the patient with a team of specialists who use a coordinated approach that results in fast diagnosis and a streamlined pathway through treatment.

Breast care at Gundersen Lutheran is considered high quality based on more than 30 known quality indicators. In 2009, the health system became the first breast center in the nation to be named a Certified Quality Breast Center of Excellence™ by the National Quality Measures for Breast Centers™ Program, the organization's highest level of distinction.

Gundersen Lutheran's model of care can be replicated on a national scale, improving clinical outcomes while providing significant financial savings in national healthcare costs.

Breast Lump Discovery-to-Treatment Timelines



From the moment a Gundersen Lutheran radiologist detects an abnormality in a woman's screening mammogram, patients receive expedited, individualized care. With Gundersen Lutheran's interdisciplinary approach, diagnosis and treatment plans are in place within nine days, and, in most cases, much sooner. Under traditional models of patient care, breast cancer diagnosis and treatment plans are not in place until 22 days after detection, or, in most cases, much longer.

Early detection

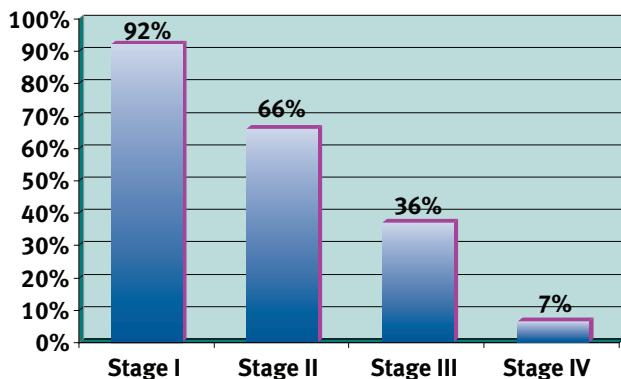
One of the keys to the success of Gundersen Lutheran's program is the early detection of breast cancer, when it's in its most treatable stage. Screening mammography is an integral part of early detection for women 40 and older because it can detect a cancerous tumor up to four years before it can be felt. When detected early and at a small size, a woman has a 92 percent chance of being alive in five years. Along with providing the best outcomes, cancer caught at an early stage lowers costs.

In 2008, the Center for Breast Care evaluated 27,167 screening mammograms and evaluated 3,990 patients with diagnostic concerns. While these numbers are good, Gundersen Lutheran is continuing its work to increase the rate of screening mammography in the communities it serves.

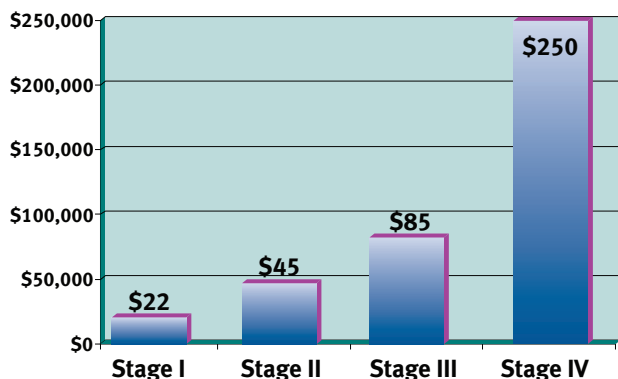
Mobile Mammography

A high number of women in Gundersen Lutheran's rural service area are still not having screening mammograms, so the health system acquired a mobile mammography unit to bring this service directly to women. The service focuses on working women who have not had a mammogram in more than five years, along with uninsured and underinsured patients. Improving access to breast cancer screening services can reduce the risk of undetected or late-stage breast cancer.

Impact of Early Detection on Five Year Survival



Impact of Early Detection on Treatment Costs



Stayin' in the Pink

Gundersen Lutheran's "Stayin' in the Pink" program spreads the message of the importance of screening mammograms. Gundersen Lutheran's Norma J. Vinger Center for Breast Care initiated the program with health system employees in 2004, and extended the program to businesses and community groups in its service area. Eligible women receive a letter to remind them of the importance of screening mammography, and those who have a mammogram are entered into quarterly prize drawings. The program has led to the discovery of many breast cancer cases in the community.

Diagnosing breast cancer

When it comes to diagnosing breast cancer sooner, the skill of the physician who interprets the mammogram is key. Gundersen Lutheran's Norma J. Vinger Center for Breast Care takes a unique approach to this process. In most organizations, mammograms are read by radiologists who interpret other types of images, like X-rays of broken bones and CT scans, at the same time they interpret mammograms. At Gundersen Lutheran, the sub-specialized breast care radiologists who read mammograms are doing only that and in a controlled environment. Gundersen Lutheran also has two fellowship-trained clinical breast radiologists on staff who specialize in breast imaging.

Gundersen Lutheran has attained every breast care-related accreditation offered by the American College of Radiology (ACR). As of March 2009, only two healthcare organizations nationwide have this distinction, and Gundersen Lutheran is one of them.

Having sub-specialized radiologists on the interdisciplinary breast team has an immediate clinical and financial impact. For example, if the radiologist spots something suspicious, more than 95% of Gundersen Lutheran patients have a less invasive clinic-based image-guided needle biopsy rather than surgery. The national average is 50%. Patients will be contacted within 24 to 48 hours with their results. Other examples include:

- 5% fewer women are asked to return for an additional evaluation after the initial screening mammogram
- 50% decrease in the number of women undergoing biopsy
- 20% increase in the positive biopsy rate
- Between 93 and 97% of screening mammogram-detected cancers are detected at Stage 0 or Stage 1 while the tumor is small and confined to the breast

Breast cancer treatment

Whenever breast cancer is diagnosed, the patient's treatment plan begins immediately, with unprecedented coordination. Weekly breast conferences at Gundersen Lutheran allow

medical and support staff from multiple specialties to work together to develop the right treatment approach for each patient. This coordinated effort means patients begin treatment in the shortest time possible and avoid the long weeks of anxious waiting that are still normal in many organizations.

Every effort is made to bring interdisciplinary care team members—including a subspecialized radiologist, pathologist, surgeon, medical oncologist, radiation oncologist, plastic surgeon, technologists, nurse navigator and social worker—to the patient, rather than having her move to various physical locations. A key team member is the nurse navigator, who ensures each member of the healthcare team receives complete, up-to-date patient information. This allows the patient to move through the healthcare system in a timely manner and have her physical and emotional care needs met efficiently.

Monitoring our outcomes

The Norma J. Vinger Center for Breast Care at Gundersen Lutheran has tracked five years of performance audit data. An interdisciplinary, point-of-care information technology tool was created to document and track more than 200 metrics that monitor patients' course of diagnosis and treatment along with outcomes data, including screening performance, positive biopsy rates, survival rates, recurrence rates, mortality rates and financial impact. Our performance far exceeds the benchmarks set by some of the nation's most revered medical centers.

Notable outcomes include:

- Average invasive tumor size of 12.04 mm discovered on screening mammogram compared to 15.9 mm national benchmark.
- Recall rate of approximately 5% compared to the 10% that is typical at many radiology facilities.
- Five year survival rate of 97 and 90% for stage 0 and stage 1 breast cancer, which is above the national benchmark.

Breast Cancer Screening, Diagnosis, Biopsy and Treatment: Cost Comparisons

If the nation shifts to a comprehensive, interdisciplinary team approach such as Gundersen Lutheran's model of care, the result will be improved clinical outcomes and a 35% reduction in national healthcare costs.

General Radiologist/ Traditional Care

*32M screening patients @ \$68 - \$2.18 billion
10% recall rate

3.2M diagnostic patients @ \$150 - \$480 million
40% recommend biopsy

1.28M have biopsy

25% Ultrasound	320K	@	\$700
25% Stereo	320K	@	\$1800
50% Surgical	640K	@	\$5000
Surgical Consult	1.28M	@	\$100

Total Biopsy \$4.13 billion
~20% Positive Biopsy Rate

**262K/yr Breast Cancer Cases
(Projected cancer detection from 32M patients)
Treatment Cost per Cancer Stage at Diagnosis

Stage Tis (DCIS)	19%	51K	@	\$15,000
Stage 1 (<14mm)	30%	63K	@	\$10,000
Stage 1 (15-20mm)	30%	63K	@	\$22,000
Stage II	14%	30K	@	\$45,000
Stage III	5%	11K	@	\$85,000
Stage IV	2%	4K	@	\$250,000

Total Treatment \$5.2 billion

Total \$12.0 billion

Clinical Breast Radiologist/ Interdisciplinary Team

*32M screening patients @ \$68 - \$2.18 billion
5% recall rate

1.6 M diagnostic patients @ \$150 - \$240 million
40% recommend biopsy

640K have biopsy

75% Ultrasound	480K	@	\$700
20% Stereo	128K	@	\$1800
5% Surgical	32K	@	\$5000
Surgical Consult	32K	@	\$100

Total Biopsy \$730 million
~40% Positive Biopsy Rate

**262K/yr Breast Cancer Cases
(Projected cancer detection from 32M patients)
Treatment Cost per Cancer Stage at Diagnosis

Stage Tis (DCIS)	19%	51K	@	\$15,000
Stage 1 (<14mm)	50%	106K	@	\$10,000
Stage 1 (15-20mm)	14%	30K	@	\$22,000
Stage II	10%	21K	@	\$45,000
Stage III	5%	11K	@	\$85,000
Stage IV	2%	4K	@	\$250,000

Total Treatment \$4.7 billion

\$7.85 billion

35% cost reduction & streamlined care

Gundersen Lutheran Health System

Headquartered in La Crosse, Wis, Gundersen Lutheran Health System provides quality health services to patients at its hospital and clinics throughout western Wisconsin, southeastern Minnesota and northeastern Iowa. Gundersen Lutheran is a major tertiary teaching hospital, providing a broad range of emergency, specialty and primary care services to its patients.

As one of the nation's largest multi-specialty group medical practices, Gundersen Lutheran is comprised of nearly 700 medical, dental and associate staff, and supported by a staff of more than 6,000. The Health System has been consistently ranked in the upper 5% of hospitals in the country.

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