



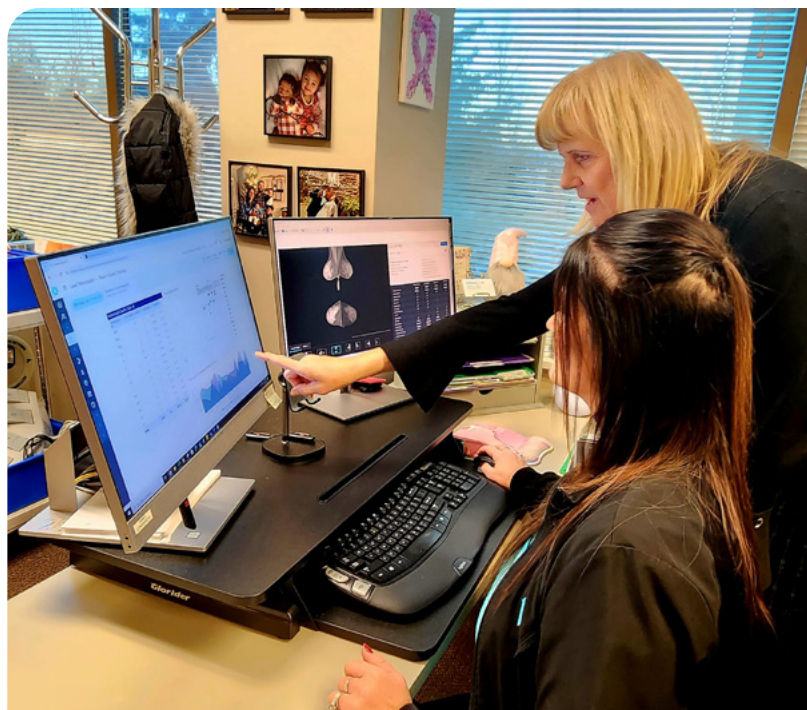
## Sustaining world-class mammography quality with objective data

### AI algorithms in Volpara® Analytics™ personalize technologist skill development

High quality mammography is the foundation of a successful breast cancer screening program. A technologist's positioning skill affects the sensitivity and specificity of mammography, and poor positioning is a significant cause of technical recalls. However, measuring, understanding, and improving your mammography quality is no simple feat. Sally Grady, the Director of the Kettering Health Breast Centers says, "We could just say we have world-class quality, but we actually have the data to prove it." So how exactly did she get there? Let's take a look.

Kettering Health serves the population of western Ohio with 15 medical centers and more than 120 outpatient locations. Kettering Health's daily mantra for both patients and staff is "be your best." The breast imaging team is committed to providing quality mammography exams and were eager to prove they are achieving their best for every patient.

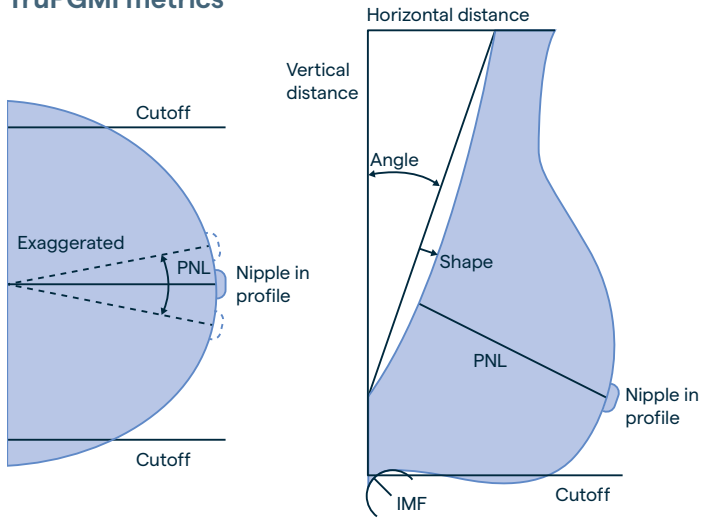
Each mammography exam requires a strategy. Each patient's body is different, but mammography machines are standard and rigid. This creates a challenge for every mammogram to meet positioning guidelines to maximize the breast tissue captured and give radiologists the best chance of cancer detection. At most breast centers, mammography quality is evaluated in a subjective manner on a small sample of mammograms with no data to determine trends in quality or how that quality compares to other facilities. But not at Kettering Health. They had a secret weapon to help them know where exactly their quality ranks from their use of [Volpara Analytics](#) AI-powered software.



"We could just say we have world-class quality, but we actually have the data to prove it."

—Sally Grady, Director of Kettering Health Breast Centers

## TruPGMI metrics



TruPGMI uses artificial intelligence to automatically and objectively assess the positioning of the patient and resulting image quality.

By providing continuous, fair, and meaningful feedback, Volpara Analytics helps managers use objective data to conduct directed staff training and help technologists advance their positioning techniques. The software is powered by Volpara's AI positioning algorithm, [TruPGMI™](#), which automatically evaluates the image quality of every standard mammographic view captured.

TruPGMI includes a clear, defined set of metrics that evaluate patient positioning in a manner that supports complete automation. Benchmarks collected on 3.3 million images from 2,000 technologists are used to guide staff, showing them where they are excellent and where they can improve.

As part of the project, Kettering Health decided to also integrate Volpara's Analytics in Action™ (AiA) program, which is designed to help breast centers foster a culture of recognition, reward, and continuous performance improvement based on meeting quality benchmarks. They wanted to ensure they would retain any quality gains, continue to improve, and recognize their team for their performance. AiA gives them a toolkit complete with an easy-to-use rewards program.

To get started they needed to understand their baseline quality level and they collected data from 32 technologists over six months. The exams were analyzed with Volpara Analytics using TruPGMI. Then, this reference data and quality scores were given to Mammography Educators, a team of experts who deliver mammography training to technologists across the country, so that they could plan a hands-on training session tailored to the performance of each individual technologist. On average, most technologists were found to have around 10 areas for skills improvement.

## RESULTS

32

technologists

+

1 day

individualized hands-on training

+

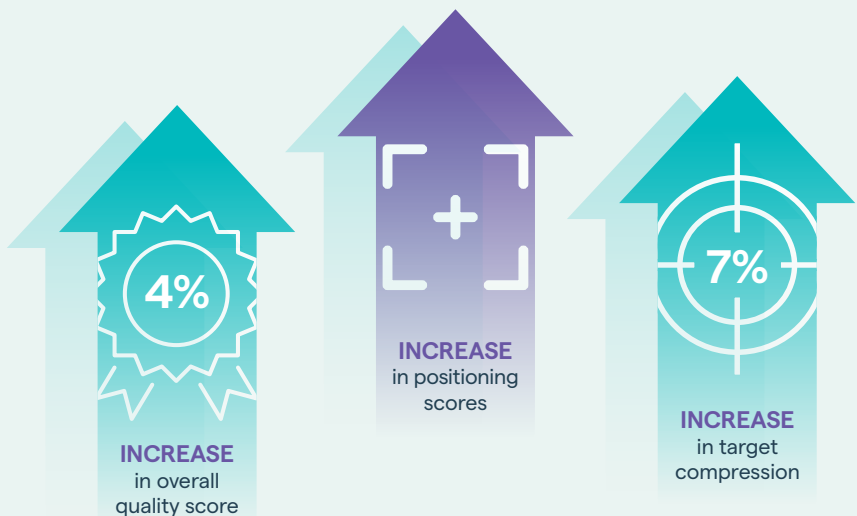
AI

continuous assessment & feedback

=

**Quality Improvement**

## Pre-training vs. 6 months later SIGNIFICANT MAMMOGRAPHY IQ IMPROVEMENTS



*New and experienced technologists achieved improvements!*

Six months after the hands-on training day, quality scores from Volpara Analytics were again analyzed and the technologists achieved a statistically significant 4% increase in overall quality score. This was bolstered by a positive increase in positioning score and a 7% increase in target compression. These improvements placed Kettering Health in the top 20% of all Volpara Analytics users in terms of mammography quality.

“The objective data we receive from Volpara is powerful feedback to give the team. Each technologist knows they are being evaluated in the same way, and the scores make it clear what they did well or what could have been done better. Analytics makes a huge difference in the level of quality we meet on a daily basis and has enabled us to set benchmarks to continue to do our best,” Sally said. “The results of this study gave us concrete data to show management about our improvement and confirms that investing in our employees reaps real results.”

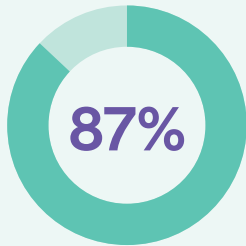


Kettering Health Breast Imaging team members (from left): Roxanne Baer, Tammy Archambault, Sally Grady and Deanne Rose.

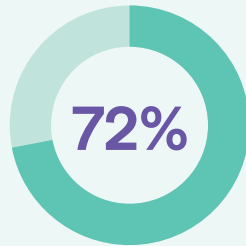


## Analytics in Action TECHNOLOGIST RESULTS

### Immediately after training

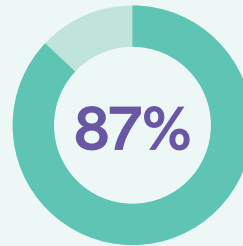


satisfied or very satisfied

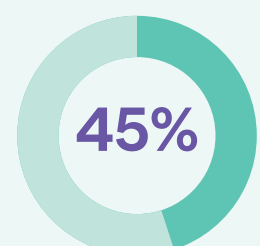


planned to increase engagement with the software

### 6 month followup



implemented changes that improved ergonomics



increased confidence communicating with patients

## Kettering Health



**TOP 10%**  
global Analytics users

Kettering Health also used data to measure the experience and satisfaction of their team with this AI-powered Analytics in Action training approach. Following training, 87% of the participating technologists reported they were satisfied or very satisfied with the personalized training profile, and 72% reported that their engagement with the software would increase. Additionally, in a 6 month follow-up after training, 87% responded that they often implemented changes that improved ergonomics and more than 45% reported that their confidence in communicating with patients increased.

Kettering Health's remarkable story does not end there. They continue their use of Volpara Analytics and raised their status to now be within the top 10% of users in just six months. Some of their technologists are even in the top 1% of users globally. Kettering Health now relies on Volpara Analytics and appreciates the continuous feedback and daily affirmation that they are “being their best” for their patients.



“Using objective quality metrics from every mammogram to develop individualized training by [Mammography Educators](#) propelled Kettering into the top 10 percent of all Volpara users.”

—Louise C. Miller, R.T. (R) (M) (ARRT), CRT (M), FSBI, FNCBC, co-founder of Mammography Educators

## About Volpara

Volpara Health is the leading provider of breast imaging analytics and analysis products that improve clinical decision-making and the early detection of breast cancer. Every day, Volpara remains focused on its mission to help save families from cancer.



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### Connect

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