

# Enabling Informed Surgical Choices for Breast Cancer Through Shared Decision Making

Allina Health 



## HEALTHCARE ORGANIZATION

Integrated Delivery System

## PRODUCTS

- Health Catalyst® Analytics Platform and broad suite of analytics applications

## SERVICES

- Professional Services

## EXECUTIVE SUMMARY

One out of every eight women in the U.S. will develop breast cancer in her lifetime, and men have a lifetime risk of one in 1,000. This year, over 3.1 million women are currently being treated or have finished treatment for breast cancer.

The Virginia Piper Cancer Institute had clear evidence-based practice guidelines that directed recommendations for early breast cancer treatment options. Even with these evidence-based recommendations, however, the organization's mastectomy rates were higher than expected.

Recognizing the organization could do better, the breast cancer program committee endorsed the spread of shared decision making for patients with early-stage breast cancer to all Virginia Piper Cancer Institute locations. The spread of shared decision making allowed patients to receive evidence-based information early in their course of care and make informed decisions that aligned with their values and preferences.

Within nine months of implementing a standard process for shared decision-making visits, the Virginia Piper Cancer Institute clinics that have completely adopted the process have made significant progress in engaging patients with early breast cancer in the shared decision-making process:

- 81 percent of eligible patients (207 people) participated in shared decision-making visits.
- 62 percent of the shared decision-making visits were in person.
- 27 percent relative increase in surgical decision of lumpectomy over mastectomy.



“Surgical choice for breast cancer is an emotional decision. While we valued how rapidly we could get the patient through the process, we realized we had an opportunity to engage patients in more meaningful conversations, enabling them to make more informed treatment decisions.

Amy Edwards, RN  
Director of Clinical Integration  
Allina Health Group

## INFORMED DECISION MAKING IS CRITICAL IN BREAST CANCER

About one in eight U.S. women (approximately 12 percent) will develop invasive breast cancer over the course of her lifetime. A man's lifetime risk of breast cancer is about one in 1,000. This year, more than 3.1 million women were being treated or had finished treatment.<sup>1</sup> For individuals with a breast cancer diagnosis, improved personal understanding helps them make informed decisions regarding treatment options, as well as enhances quality of life.<sup>2</sup>

Decision making for surgical treatment in early-stage breast cancer requires the patient to make complex choices. For example, conserving therapy (lumpectomy and radiation) and mastectomy have been shown to have equivalent survival outcomes, yet each comes with different risks and benefits for the patient.<sup>3</sup> In shared decision making for breast cancer, clinicians and patients share the best available evidence and consider options to make informed treatment choices.<sup>4</sup>

A non-profit healthcare system, Allina Health, is dedicated to the prevention and treatment of illness and providing whole-person care to individuals, families, and communities throughout Minnesota and western Wisconsin. The Virginia Piper Cancer Institute, part of Allina Health, is recognized and respected for its expertise in comprehensive breast care, with specialized caregivers, technology, and support to help individuals make informed choices about their breast healthcare. The Virginia Piper Cancer Institute includes nine locations, offering a full network of cancer care and support.

## DEFINED STANDARDS AND PROCESSES MAKE SHARED DECISION MAKING MORE EFFECTIVE

Breast cancer treatment options vary according to type and stage, making thorough discussions between the patient and clinicians a critical part of decision making. To make an informed decision, the patient needs to understand all appropriate, evidence-based treatment options, including each treatment's goal and possible side effects.

Allina Health had invested in infrastructure to support a relationship-based care delivery system, using evidence-based practice guidelines to recommend treatment options. The mastectomy rate among patients with an early breast cancer, however, remained higher than expected.



We were purposeful and thoughtful in our development of the shared decision-making tools. That helped us ensure the RN care coordinators and physicians were confident in the process and the content as we spread shared decision making across the system.

Lisa Hiedeman, RN  
Breast Cancer Care Coordinator

Because the Virginia Piper Cancer Institute understood that breast cancer diagnosis is an emotional, stressful, and life-changing time, patients generally had their first appointment with a surgeon within two days of diagnosis. However, some important decision-making information, such as imaging or cancer receptor identification, may not be available for review within two days, making early treatment decisions difficult.

Due to perceptions about the importance of timely care and the stressors associated with receiving an early breast cancer diagnosis, support for informed patient decision making was not as effective as it could be. There was no clearly defined structure, process, or content for effective shared decision making, and there was no consistent documentation of shared decision-making discussions and decisions.

### SHARED DECISION MAKING FOR BREAST CANCER GIVES PATIENTS EVIDENCE-BASED INFORMATION

Recognizing the organization could do better, the breast cancer program committee endorsed the [spread of shared decision making](#) for patients with early-stage breast cancer to all Virginia Piper Cancer Institute locations. The spread of shared decision making allowed patients to receive evidence-based information early in their course of care and make informed decisions that aligned with their values and preferences.

The Virginia Piper Cancer Institute engaged its registered nurse (RN) cancer care coordinators, physicians, surgeons, and clinic staff to evaluate and enhance existing workflows, tools, and training. The organization aimed to make needed improvements across all Virginia Piper Cancer Institute sites before implementing shared decision making.

Using a collaborative, iterative process, the Virginia Piper Cancer Institute made small tests of change that engaged clinicians and clinic staff in the development of standard workflows, including clear roles and responsibilities for the shared decision-making visit.



Shared decision making helps individuals make the right decision for them. Engaging patients in the conversation creates an opportunity to empower them, ultimately improving their satisfaction and comfort with their choice.

Jessica Quinlan-Woodward, RN  
Manager of Cancer Care  
Coordination

The organization built its shared decision-making process for patients with breast cancer with nine elements:

### 1. Delay the initial surgical appointments

In planning for the new process, physicians and RN cancer care coordinators developed a shared understanding that delaying the initial consultation appointment would be beneficial for the patients. Delayed initial appointments would give the surgeon time to get more information, which would give patients time to process the information they received at the shared decision-making visit.

This intentional delay gives the patient time to gain an understanding of treatment options and terminology. The delay also gives patients time to form questions, so they can actively engage in a conversation with the surgeon about their treatment options. Using shared decision making helps the patient make an informed personal decision after having adequate time to contemplate options—an important consideration, as the choice of surgical treatment affects patients for the rest of their lives.

### 2. Assess patient eligibility

All patients diagnosed with early breast cancer are assessed by RN cancer care coordinators to determine if shared decision making, using established inclusion and exclusion criteria, is right for them. Eligible patients are offered in-person or phone consultations with an RN cancer care coordinator within two days of diagnosis.

### 3. Provide education materials

RN cancer care coordinators provide patients education materials on breast cancer diagnosis, common terms, and risks/benefits of surgical treatment options. Patients receive information on both surgical options (lumpectomy and mastectomy), including information about the initial surgery and subsequent procedures, as well as the need for lifelong monitoring for possible recurrence.

### 4. Record and track patient questions and concerns

RN cancer care coordinators record, and track concerns and questions the patient wants to address during the surgeon consultation visit, which helps ensure that clinicians uphold patient's personal preferences and values throughout the process. To support the patient and the shared decision-making process, the RN cancer



The shared decision-making visit provides the patient with understandable information prior to meeting with the surgeon, which has resulted in improved patient and surgeon satisfaction with the consultation visit. Early in the process the patient is able to establish a relationship with the care team, there is a strong sense of who their team is and that the team is there for them.

Natasha Rueth, MD  
Surgical Oncologist

care coordinator uses an evidence-based patient education decision aid outlining breast cancer surgical options.

### 5. RN cancer care coordinator and surgeon review the shared decision-making information

Before the patient and surgeon have their consultation visit, the RN cancer care coordinator and surgeon review the information the RN cancer care coordinator collected at the shared decision-making visit. The RN cancer care coordinator shares the patient's thoughts, values, preferences, and questions with the surgeon, so that the surgeon can incorporate the patient information into the consultation. Within five days of diagnosis, the surgeon meets with the patient to review clinical recommendations for surgery; during this meeting, the surgeon focuses on the patient's questions and preferences, based on the shared decision-making visit.

### 6. Use clear and consistent documentation

The Virginia Piper Cancer Institute understood that clear and consistent documentation would be a key driver for success. The organization developed templates in the EHR that used key phrases; it also standardized the information recorded during the shared decision-making visit (patient preferences, values, and concerns).

### 7. Add new charge category for shared decision making

To allow appropriate and accurate charges for shared decision-making interventions, the Virginia Piper Cancer Institute developed new charge categories for shared decision-making visits.

### 8. Use analytics to monitor shared decision-making process

The Virginia Piper Cancer Institute leverages the Health Catalyst® Analytics Platform and broad suite of analytics applications, to monitor the process and gain insight about the effectiveness of the shared decision-making process and how it supports ongoing improvement. Operational leaders use the analytics platform to monitor adoption of shared decision making. Using the analytics platform, leaders are able to review data at the clinic site, provider, and patient level. This has enabled leaders to identify undesirable variation, changing workflows and providing additional support where needed, and has enabled leaders to identify positive deviance, supporting spread of best practices. Use of the shared decision-making tools is included on Allina Health's balanced scorecard, creating executive and board level visibility into performance.



## 9. Provide regular updates

Health Catalyst professional services provide weekly reports to operational leaders to further improve insight into why some patients decline the shared decision-making visit; this insight helps leaders address issues in a timely manner, and the data transparency has allowed for continual feedback and ongoing process improvement.

The Virginia Piper Cancer Institute also reports performance to the shared decision-making steering committee on a regular basis.

Performance data includes the following:

- The shared decision-making visit rate.
- The decline and cancel rate.
- The number of patients who qualified for inclusion but were not offered the shared decision-making option.
- The saturation rate (patients who considered shared decision-making and all patients with a new breast cancer diagnosis).

On a quarterly basis, the Virginia Piper Cancer Institute uses the analytics platform to identify:

- The number of patients eligible for a shared decision-making visit.
- The decline or cancel rates and the reasons for declination.
- The number of patients not offered a shared decision-making visit and the reason why.
- The number and type of sessions (in-person or phone).
- The level or complexity of shared decision-making visits.
- The patient's initial thoughts on treatment prior to the shared decision-making visit.
- The patient preference after the shared decision-making visit.
- The surgical decision (lumpectomy with radiation or mastectomy with or without reconstruction).
- The clinical documentation data integrity.

## RESULTS

Within nine months of implementing a standard process for shared decision-making visits, the Virginia Piper Cancer Institute clinics that have completely adopted the process have made significant

progress in engaging patients with an early breast cancer diagnosis in the shared decision-making process:

- 81 percent of eligible patients (207 people) participated in shared decision-making visits.
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- The clinics recorded a 27 percent relative increase in the surgical decision of lumpectomy over mastectomy.

## WHAT'S NEXT

Building on the success of the shared decision-making process for patients with early-stage breast cancer, the Virginia Piper Cancer Institute will continue to expand the shared decision-making process. Additionally, the Virginia Piper Cancer Institute has started the discussion about developing a shared decision-making workflow for mammography screening. Allina Health has published its [shared decision-making decision aids on its public website](#) and is using analytics to identify which decision aids need to be translated into additional languages, ensuring its various patient populations are provided the opportunity to participate in the shared decision-making process. 📌

## REFERENCES

1. Breastcancer.org. (2017). *U.S. breast cancer statistics*. Retrieved from [http://www.breastcancer.org/symptoms/understand\\_bc/statistics](http://www.breastcancer.org/symptoms/understand_bc/statistics)
2. Breast Cancer Partnership. (n.d.). *Survivor empowerment plan*. Retrieved from [http://www.breastcancerpartner.com/empowerment\\_plan.shtml](http://www.breastcancerpartner.com/empowerment_plan.shtml)
3. Martinez, K. A., Li, Y., Resnicow, K., Graff, J. J., Hamilton, A. S., & Hawley, S. T. (2015). Decision regret following treatment for localized breast cancer: Is regret stable over time? *Medical Decision-making: An International Journal of the Society for Medical Decision-making*, 35(4), 446–457. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4424135/>
4. Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., ... Barry, M. (2012). Shared decision-making: A model for clinical practice. *Journal of General Internal Medicine*, 27(10), 1361-1367. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3445676/>

## ABOUT HEALTH CATALYST

Health Catalyst is a next-generation data, analytics, and decision support company committed to being a catalyst for massive, sustained improvements in healthcare outcomes. We are the leaders in a new era of advanced predictive analytics for [population health](#) and [value-based care](#), with a suite of machine learning-driven solutions, decades of outcomes-improvement expertise, and an unparalleled ability to integrate data from across the healthcare ecosystem. Our proven data warehousing and analytics platform helps improve quality, add efficiency and lower costs in support of more than 85 million patients and growing, ranging from the largest US health system to forward-thinking physician practices. Our technology and professional services can help you keep patients engaged and healthy in their homes and workplaces, and we can help you optimize care delivery to those patients when it becomes necessary. We are grateful to be recognized by Fortune, Gallup, Glassdoor, Modern Healthcare and a host of others as a Best Place to Work in technology and healthcare.

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