



Chicago Breast Cancer Quality Consortium

Report Back to the Community October 21, 2009

The Chicago Breast Cancer Quality Consortium is a project of the Metropolitan Chicago Breast Cancer Task Force in collaboration with the Illinois Hospital Association.

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BACKGROUND

There is a large and growing disparity in breast cancer mortality between Black and White women in Chicago (1,2). An African American woman in Chicago is more than twice as likely to die of breast cancer compared with a White woman; but it has not always been like this. In 1980 there was little difference in death rates between the two groups (1). While a decline in breast cancer deaths among White women is a notable success in the fight against the disease, the simultaneous increase in the death rate among Black women implies that advances in breast care over the last 28 years have benefited some, but not all.

In response to these findings, the Metropolitan Chicago Breast Cancer Task Force (the Task Force) released a comprehensive report to the city outlining 37 recommendations on how to address factors that may contribute to the problem (3). The recommendations centered around Access to Care (both access to screening and timely access to treatment), Quality of Mammography and Quality of Treatment. A major idea put forward by the Task Force was that the high death rate for African American women may be partially caused by problems with the quality of care that they receive. With this in mind, one of the recommendations of the Task Force was to form an initiative among health care providers. They would share data on healthcare quality in a confidential manner with the goal of identifying where problems lay, ultimately solving those problems and saving lives. In 2008, the Task Force received generous funding from the Susan G. Komen for the Cure Foundation, to initiate the Chicago Breast Cancer Quality Consortium (the Consortium).

We are proud to announce that 56 health care institutions representing 117 sites (locations) in Metropolitan Chicago have either officially joined the Consortium or have expressed intent to join, demonstrating their dedication to the patients they serve. This represents 80 percent of mammography provided by hospitals. It is an unprecedented level of participation by healthcare providers in a voluntary quality improvement project and represents a major commitment by community leaders and health care organizations to eliminating breast cancer disparities in Chicago. The Consortium has also received federal designation as a Patient Safety Organization (PSO) and is the nation's first PSO dedicated exclusively to breast health.

ABOUT THE CONSORTIUM

The goal of the Consortium is to help Chicago health care providers involved in breast health deliver the highest quality of care. In order to do this however, we must first determine a way to measure quality so we can know where to focus our efforts. Measuring quality of care can be a difficult task and involves the consideration of many factors. Our first step in trying to understand the quality of breast care at institutions has been to decide on common measures of quality. Expert advisory boards were established for both mammography screening and breast cancer treatment. These boards came together to decide on what quality data we would collect. The mammography and treatment measures we have chosen this year were based on the literature, the knowledge of experts in the field and the guidelines of reputable quality agencies. A data collection system was created and data collection is currently underway. Once the data have been analyzed, a report will be distributed to each participating institution discussing the results and their significance. Interventions will be planned and implemented based on problems identified through data analysis, feedback from institution staff and the knowledge of experts. The Consortium will then assist hospitals and other institutions in acquiring the funding and/or resources to implement the changes needed to improve quality.

What data is the Consortium collecting and why is it important?

Quality data is just one factor that contributes to understanding care. All the data collected for this initiative must be analyzed along side many other factors in order to determine areas for improvement. There are a number of measures that may be used to define quality. Below is a list of those measures that we selected for collection in this first year, followed by an explanation as to why these measures were chosen.

Summary of Measures

Screening:

1. The number of cancers found per 1,000 women screened (screening detection rate)
2. The proportion of cancers detected that are small or “minimal”(DCIS, ≤ 1 cm)
3. The proportion of cancers detected that are early stage (Stage 0, 1)
4. The proportion of women with abnormal mammograms who receive follow up (recall rate)
5. Timeliness of diagnostic follow-up imaging

Treatment:

1. Percentage of women who begin treatment for their breast cancer within 30 days of diagnosis
2. Percentage of women with breast conserving surgery who go on to receive radiation therapy
3. Percentage of women who have tumors with hormone receptors on them that go on to receive hormonal therapy as part of their treatment
4. Percentage of women who have tumors with a specific receptor known as her2/neu on them that go on to receive the chemotherapy drug Herceptin as part of their treatment

Explanation of Measures

Screening

1. *The number of cancers found per 1,000 women screened (screening detection rate)*⁽²⁾

Mammography’s purpose is to find breast cancers. Ideally mammography would find all breast cancers without any false alarms known as “false positives.” Technology and training improvements in this area have taken place over the last 2 decades and improvements are continuing today. Studies from published academic research show that on average, a mammography provider can expect to detect 6 cancers per 1,000 screening mammograms ⁽⁴⁾. But this varies depending on whether the women they are screening receive mammograms regularly or have never or rarely been screened for breast cancer. At facilities where most of the women have not been previously screened, a higher screening detection rate is expected (up to 10 cancers per 1,000 screens). At facilities where women have been regularly screened a lower screening detection rate (as low as 2 cancers per 1,000 screens) is expected. In addition, facilities with high-quality screening mammography and diagnostic follow-up would be expected to have a higher cancer detection rate. Therefore, if a hospital knows that the women they serve have generally not received prior mammograms or have rarely received them but their detection rate is low, this would be a warning sign. More investigation would be needed to understand why the detection rate is low and to help identify potential areas for quality improvement.

2. The proportion of cancers detected that are small or “minimal”(DCIS, ≤ 1 cm)

3. The proportion of cancers detected that are early stage (Stage 0, 1)

Finding breast cancer early when the tumors are small and at their earliest stage is key to saving lives. Minimal breast cancer is defined as cancer that is diagnosed as either ductal carcinoma in-situ (DCIS) or that is less than or equal to 1cm in diameter. One goal of screening mammography is to increase the percentage of minimal cancers that are detected because these cancers have the best chance of being successfully treated. When women do not regularly receive mammograms we expect to have fewer minimal cancers. This is because cancer tends to be found later in these women and therefore is likely to be diagnosed as a larger tumor and at a more advanced stage. Likewise, when women are screened regularly we expect to have far more minimal cancers. In addition, facilities with high-quality screening mammography and diagnostic follow-up would be expected to have a high percentage of minimal cancers detected (i.e., they wouldn't miss the small cancers). Therefore, if a hospital knows that their population is regularly screened but their percentage of minimal cancer is low, this might raise a red flag. Further study might be needed to understand what exactly is going on which may help identify potential areas for quality improvement.

4. The proportion of women with abnormal mammograms who receive follow up (recall rate)

If the interpreting radiologist notes a suspicious finding on a screening mammogram, the patient is notified that she needs to return for additional diagnostic imaging. Recall rate refers to the percentage of screening mammograms that are interpreted as suspicious and that require some sort of diagnostic follow-up imaging and/or biopsy. According to the American College of Radiology the percentage of patients recalled following a screening mammogram should be 10% or less ⁽⁵⁾. Similar to the other measures, the recall rate is influenced by a number of factors, and an exceptionally high or low recall rate indicates a need for further study to help identify potential areas for quality improvement. For patients who are recalled, the timeliness of follow-up imaging is important. Additional delays allow more time for a potential cancer to grow, spread, and become less treatable.

5. Timeliness of diagnostic follow-up imaging

Mammography allows us to find breast cancer and to have it treated in a timely manner. Time is of the essence because delays can allow the cancer to continue to grow and spread before it can be successfully treated ⁽⁶⁾. The benefits of going routinely for a mammogram could be diminished if patients experience long delays in getting diagnosed following an abnormal screen. We considered timely diagnostic follow-up to take place if follow-up imaging occurred within one month of an abnormal screening mammogram. Timeliness of follow-up may depend on a patient's own behavior, which can be affected by fear, family responsibility, resources and other factors in their lives, but will also depend on facility practices and availability of appointments. The percentage of patients with timely follow-up will tend to be higher at facilities that interpret and report mammogram findings to patients promptly and make appointments available for quick follow-up. If a facility serves women who have many barriers to accessing care such as lack of transportation, difficulty in taking time off work, money concerns or other barriers, timeliness may suffer. In such instances, case managing or patient navigation services may help to ensure that women get the follow up care they need in a timely fashion.

Treatment

The treatment measures we selected are based on widely accepted breast cancer treatment recommendations and guidelines supported by the American College of Surgeons - Commission on Cancer (ACOS-CoC), the American Society of Clinical Oncology (ASCO), the National Comprehensive Cancer Network (NCCN), the National Quality Forum (NQF) and other quality entities. Research has demonstrated that the percentage of patients in each of the categories below should be as high as possible. However, some patients do not get timely treatment or the most effective treatments for their cancer either because they are not offered these treatments by their providers, they cannot afford certain treatments, they fear potential side effects of treatments, or they face other barriers. If the percentage of patients receiving the most appropriate treatment is low it suggests that clinical guidelines in breast cancer care are not being met by providers and could point to an area for improvement.

The treatment measures chosen by the Consortium include the following:

1. *Percentage of women who begin treatment for their breast cancer within 30 days of diagnosis*

Delays before treatment begins can allow cancer to grow and spread. The larger and more wide-spread cancer is, the less likely it is that treatment will be successful. We consider treatment following diagnosis to be timely if the treatment began within one month of the date of the diagnosis. As stated before, if a facility serves women who have many barriers to accessing care, timeliness may suffer. In such instances, case managing or patient navigation services may help women get the timely follow up care needed.

2. *Percentage of women with breast conserving surgery who go on to receive radiation therapy*

Breast conserving surgery (BCS) refers to cases where women have had part of the breast but not the whole breast removed. This can include lumpectomies (removing a lump) and partial mastectomies (removing part of the breast). Studies have shown that simply removing a cancerous lump or segment of the breast can be as effective as removing the whole breast (known as mastectomy) if it is accompanied by local radiation treatment aimed at the area where the lump was removed (7,8). Radiation therapy decreases the chance that the breast cancer will return. Ideally, all patients with BCS would also receive local radiation.

3. *Percentage of women who have tumors with hormone receptors on them that go on to receive hormonal therapy as part of their treatment*

Breast cancers that have receptors (i.e. are positive) for the hormones estrogen and progesterone tend to be easier to treat and these tumors tend to shrink if patients are given hormone therapy (7). Ideally, all patients with hormone-receptor positive breast cancer would also receive hormonal therapy.

4. *Percentage of women who have tumors with a specific receptor known as her2/neu on them that go on to receive the chemotherapy drug Herceptin as part of their treatment*

Breast cancers that have the growth factor receptor known as her2/neu have a better chance of successful treatment if given the drug Herceptin (7,9). Ideally, all patients whose breast cancer contains this receptor would receive Herceptin.

WHO IS INVOLVED?

The Consortium brings together experts from across the continuum of breast cancer screening and treatment, the Illinois Hospital Association, community leaders and breast cancer advocates, with the mission of improving the quality of breast health care for all women in Metropolitan Chicago. It is the first project in the nation to address a racial health disparity through quality improvement with provider collaboration across an entire community and the community's health system.

We have defined metropolitan Chicago for this project as including Cook and the collar counties (DuPage, Kane, Lake, McHenry, Will). Of the 72 major breast health centers identified in the metropolitan Chicago area, 55 hospitals as well as the Chicago Department of Public Health have officially joined the Consortium or expressed intent to join. These major health centers are listed below.

HEALTH CENTERS: Confirmed Consortium Participation

(participating hospital affiliated clinics not listed)

Adventist Bolingbrook Hospital	Mount Sinai Hospital
Adventist GlenOaks Hospital	NorthShore University Health System Evanston Hospital
Adventist Hinsdale Hospital	Northwest Community Hospital
Adventist La Grange Memorial Hospital	Northwestern Memorial Hospital
Advocate Bethany Hospital	Norwegian American Hospital
Advocate Christ Medical Center	Provena Saint Joseph Hospital
Advocate Condell Medical Center	Provena Saint Joseph Medical Center
Advocate Dreyer Medical Clinic	Provident Hospital of Cook County
Advocate Good Samaritan Hospital	Resurrection Health Care Holy Family Medical Center
Advocate Good Shepherd Hospital	Resurrection Health Care Resurrection Medical Center
Advocate Illinois Masonic Medical Center	Resurrection Health Care Saint Francis Hospital
Advocate Lutheran General Hospital	Resurrection Health Care Saint Joseph Hospital
Advocate South Suburban Hospital	Resurrection Health Care Saints Mary & Elizabeth Medical Center: Saint Mary Campus
Advocate Trinity Hospital	Resurrection Health Care Saints Mary & Elizabeth Medical Center: Saint Elizabeth Campus
Central DuPage Hospital	Resurrection Health Care West Suburban Medical Center
Chicago Department of Public Health	Resurrection Health Care Westlake Hospital
Delnor Community Hospital	Resurrection Our Lady of the Resurrection Medical Center
Edward Hospital & Health Services	Riverside Medical Center
Holy Cross Hospital	Roseland Community Hospital
Ingalls Memorial Hospital	Rush Oak Park Hospital
John H. Stroger, Jr. Hospital of Cook County	Rush University Medical Center
Little Company of Mary Hospital and Health Care Centers	Rush-Copley Medical Center
Loretto Hospital	Saint Anthony Hospital
Louis A. Weiss Memorial Hospital	Sherman Hospital
Loyola University Hospital	St. Alexius Medical Center
MacNeal Hospital	St. James Hospital Olympia Fields Campus
Mercy Hospital & Medical Center	University of Chicago Medical Center
Metro South Medical Center	University of Illinois Medical Center at Chicago

HEALTH CENTERS: Not Participating
(hospital affiliated clinics not listed)

Alexian Brothers Medical Center	NorthShore University Health System Skokie Hospital
Elmhurst Memorial Healthcare	Palos Community Hospital
Jackson Park Hospital and Medical Center	Provena Mercy Medical Center
Lake Forest Hospital	Sacred Heart Hospital
Methodist Hospital of Chicago	South Shore Hospital
Northern Illinois Medical Center	St. Bernard Hospital & Health Care Center
NorthShore University HealthSystem Glenbrook Hospital	Swedish Covenant
NorthShore University HealthSystem Highland Park Hospital	Thorek Memorial Hospital

Characteristics of Participating Hospitals

Fifty-five out of the 72 Metropolitan Chicago hospitals (76%) and 117 out of their 149 affiliated sites (79%) are participating in the Consortium. All academic hospitals and nearly all safety-net institutions are participating. Participation is greater with institutions that have more mammography machines and who perform more mammograms. Barriers to participation among the smaller facilities may have to do with a lack of resources.

***What types of facilities have agreed to participate in the Consortium?
Data from the 2006 Hospital Profile Questionnaire.***

	Participants/ Total	% Participating
All mammography sites (N=149)		
Overall	117 / 149	79%
By type of site		
Hospital/Medical Center	55 / 72	76%
Hospital Affiliate	62 / 77	81%
Facility Type (N=149)		
Academic	5 / 5	100%
Other facilities	112 / 144	78%
Safety Net ¹	17 / 19	89%
Non-Safety Net	100 / 130	77%
Hospitals and medical centers (N=72)^{2,3}		
Predominantly (>50%) African American ⁴		
No	39 / 51	76%
Yes	14 / 19	74%
At least one third (33%) Hispanic ⁴		
No	46 / 63	73%
Yes	7 / 7	100%
Mammogram volume ⁵		
Lowest (<2400)	7 / 13	54%
Medium (2400-15,000)	31 / 37	84%
High (>15,000)	15 / 20	75%
Number of mammogram machines		
1	9 / 15	60%
2+	44 / 55	80%

¹Safety net is defined as reporting at least 40% of outpatient visits as either Medicaid, charity or self-pay. ²Hospital and Medical Center statistics do not include CDPH sites ³ Profile information was not available for 2 of the participating hospitals. ⁴Hospitals but not affiliates have data on race/ethnicity from the hospital profile questionnaire, although in some cases the distribution for a hospital may include some or all of their affiliates. ⁵Hospitals but not affiliates have data on mammogram volumes from the hospital profile questionnaire, although in some cases the volume listed for a hospital may include some or all of its affiliates.

THE FUTURE

In just one year, the Chicago Breast Cancer Quality Consortium has made significant strides bringing institutions together to work towards improving breast cancer care. Having participation by 79 percent of hospitals and their affiliates in the Metropolitan area is a testament to Chicago health care facilities and their leaders. This level of commitment highlights the dedication here in Chicago to fight breast cancer generally and in particular to ensure that we have a healthcare system that gives everyone an equal chance at life.

Data collection is underway and the Consortium expects to report on its findings at the Task Force's 2010 Report Back to the Community event. Looking towards the future, we hope to become an initiative of all 72 major hospitals in the metro area as well as an entity that effectively collaborates with other quality organizations, breast cancer organizations and governmental agencies. Racial health disparities are not confined to breast cancer alone. Health disparities here in Chicago are pronounced in many areas, whether with other forms of cancer, survival of newborns, or other diseases. We hope that our work on breast cancer will shed light on problems with our healthcare system here in Chicago and that solutions that we identify may benefit the health of the city overall. This success cannot be achieved however, without the support of the community. Please show your support by signing up to be a member of the Metropolitan Chicago Breast Cancer Task Force so that the people and in particular those affected by breast cancer always remain at the heart of our progress.

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