ALL WOMEN DESERVE AN EQUAL CHANCE AT SURVIVAL

How Far have we come?: Battling breast cancer mortality disparities through quality improvement
ALL WOMEN DESERVE AN EQUAL CHANCE AT SURVIVAL

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Associate Director, Quality Consortium
Metropolitan Chicago Breast Cancer Task Force
Overview & Disclaimer

1) Cancer (abridged)
   a) Background
   b) Risks
   c) Disparities

2) Breast cancer (less abridged)
   a) Background
   b) Risk
   c) Disparities
   d) access & equity

3) 3. Breast cancer screening quality
   a) Why?
   b) How?
   c) What?

4) Discussion/questions
What is cancer?

External factors
(tobacco, infectious organisms, chemicals, radiation)

Internal factors
(genetics, hormones, immune conditions, metabolism)

uncontrolled cell growth
Who is at risk of cancer?

- Men (1:2) & Women (1:3)
- 77% > 55 y/o
- genetics, family hx & lifestyle
The good news is... 1/3 cancers preventable

- Most Cervical (HPV vax)
- Colorectal (colonoscopy)

176K of 586K deaths from smoking in 2014

Screenings for early detection

- Prostate
- Breast
- Skin
- Lung
- Oral
Breast Cancer - less abridged

About 1 in 10 invasive BC are ILC

About 8 in 10 invasive BC are IDC

2nd deadliest and 2nd most common cancer in the US (which is first?)
Risk factors – uncontrollables

- #1 risk factor – is being a Woman
- Age
- Family hx
- Race
- Genetics
- Menstrual hx
Risk factors – controllable

• Reproductive hx
• Obesity
• Exercise
• Breastfeeding
• Parity
• Alcohol
• Smoking
• Birth control pills
• Hormone replacement therapy
Breast Cancer - less abridged

About 1 in 10 invasive BC are ILC

About 8 in 10 invasive BC are IDC
The disparity

Data Source: Illinois Department of Public Health Vital Statistics
Data Prepared By: Sinai Urban Health Institute
Racially and ethnically diverse cities showed great variation in their level of this disparity
Our central hypothesis regarding health disparities in Chicago

Unequal access to **high quality healthcare** is a significant driver in overall healthcare disparities including breast cancer mortality disparities in Chicago.
Call to Action: The founding summit of the Metropolitan Chicago Breast Cancer Task Force

- March 2007, over 200 concerned advocates, breast cancer survivors, breast cancer experts and concerned citizens came together to organize over this issue.

- Action Groups were formed in the areas of:
  - Access barriers to Mammography for Black Women
  - Quality of Mammograms received by Black Women
  - Quality of Treatment received by Black Women

- This led to 37 recommendations for change, which are far reaching and at times complex. They include public education and outreach, advocacy and public policy changes, healthcare quality improvements, and healthcare delivery system change in Chicago.
MCBCTF Background

• In 2008, with generous funding from Avon Foundation for Women ($1 million) and Susan G. Komen for the Cure ($1 million), the Task Force opened its doors.

• The MCBCTF is charged with putting into effect the recommendations that came from the Summit, expanding and developing new solutions that will eliminate the breast cancer disparity.
Early Data Suggesting Inequity in Healthcare Mammography Facility Survey

Characteristics of Mammography Services Offered, by Race, to Women Living in Chicago (2007)

- Digital mammography available: 21% (Black) vs. 56% (White)
- All mammograms read by breast specialists: 23% (Black) vs. 57% (White)
- Face-to-face on same day as exam: 50% (Black) vs. 67% (White)

Breast Cancer Task Force
Metropolitan Chicago
Uniting to End Disparity
Chicago community areas with the highest 2000-2005 average annual breast cancer mortality rates

- Predominately African American Community Areas.
- Non-African American Community Areas.
- Hospitals with American College of Surgeons Approved Cancer Programs.
Chicago Breast Cancer Quality Consortium funded by Susan G. Komen for the Cure $2.1 million over 6 years

- Healthcare providers from all across Illinois sharing breast cancer screening and across Metro Chicago sharing treatment quality data.

- Unique in that we have participants from all academic, publics, all major hospital systems and most safety net and community hospitals – even those that are not generally involved in research and don’t have large quality departments.

- First Patient Safety Organization federally designated exclusively working on breast health and racial health disparities.

**Mammography Metrics:**

- *Radiologist quality*
  - Cancer detection rates
  - % minimal and early stage

- *Facility Quality*
  - Timeliness and loss to follow up

**Treatment Metrics:**

- Radiation after Lumpectomy
- ER/PR testing
- Hormone recommended for those receptor positive
- Timeliness from diagnostics to treatment
What is unique about Consortium?

- Nation’s only federally designated PSO for breast health and racial health disparities
- Very broad participation with large scale inclusion of safety net hospitals
- Provides technical assistance to safety net venues to help with participation
- Very inclusive – broad participation on advisory groups
- Ability to provide resources to participating provider (free trainings, Rapid cycle Improvements)
- Goes beyond research to implement change
- Moves research to policy change
- Is informed by the everyday lives of women struggling with our inadequate healthcare delivery system (Task Force’s Navigation programs).
## Screening Mammography Measures and Targets

<table>
<thead>
<tr>
<th>Measure</th>
<th>Participants meeting benchmark</th>
<th>Consortium Benchmarks</th>
<th>BCSC 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Radiologist</strong> Cancer detection rate (cancer among screened)</td>
<td>68%</td>
<td>3-10 per 1000</td>
<td>4.1 per 1000</td>
</tr>
<tr>
<td>Quality Proportion minimal</td>
<td>81%</td>
<td>&gt;30%</td>
<td>53.6%</td>
</tr>
<tr>
<td>Proportion early stage</td>
<td>59%</td>
<td>&gt;50%</td>
<td>73.6%</td>
</tr>
<tr>
<td>Abnormal screen resolved as needing biopsy (biopsy recommendation rate)</td>
<td>59%</td>
<td>8-20%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Cancer among abnormal screens (PPV1)</td>
<td>57%</td>
<td>3-8%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Cancer among biopsied (PPV 3)</td>
<td>67%</td>
<td>20-40%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Recall Rate</td>
<td>63%</td>
<td>5-14%</td>
<td>9.2%</td>
</tr>
<tr>
<td><strong>Facility Care</strong> Follow-up imaging in 12 months</td>
<td>75%</td>
<td>&gt;90%</td>
<td>NA</td>
</tr>
<tr>
<td>Process Follow-up imaging within 30 days</td>
<td>53%</td>
<td>&gt;90%</td>
<td>NA</td>
</tr>
<tr>
<td>Quality Biopsy received in 12 months</td>
<td>81%</td>
<td>&gt;70%</td>
<td>70.6%</td>
</tr>
<tr>
<td>Biopsied within 60 days</td>
<td>53%</td>
<td>&gt;90%</td>
<td>NA</td>
</tr>
</tbody>
</table>
Quality Varies

Mammography

Treatment

Number of Facilities

Number of Benchmarks Met

METROPOLITAN CHICAGO Breast Cancer Task Force
Uniting to End Disparity
Quality Varies

Mammography

Treatment

Distribution of screening benchmarks shown to have met

Distribution of treatment benchmarks shown to have met

The 6 benchmarks were recall rate, timeliness of imaging and biopsy, detection rate, and proportion minimal and early stage.

The 6 benchmarks were excisional and overall biopsy rates, hormone therapy, radiation, chemotherapy and timeliness of treatment.
Evidence of Impact & Improvement: Meeting mammography quality benchmarks

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Benchmarks Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY2006</td>
<td>5</td>
</tr>
<tr>
<td>CY2009</td>
<td>7</td>
</tr>
<tr>
<td>CY2011</td>
<td>8</td>
</tr>
</tbody>
</table>
CHICAGO HOSPITALS’ GRADE ON BREAST CANCER:
Not good enough

New study says 2 out of 3 Chicago hospitals are not able to show that they find cancer when it's small nor provide timely treatment after diagnosis.
MONIFA THOMAS REPORTS ON PAGE 15
University of Illinois study on potentially missed breast cancers

Looked at diagnosed with breast cancer and their prior mammograms:

- Poor women
- Women with less education and
- Publicly insured women

Had the highest rate of potentially missed breast cancer

Treatment: What Matters?
Beyond Quality Measurement – Care Process Analysis

- Assess patient interactions with the healthcare system and information provided to patient
- Review handoffs between different services / phases of care, and where breakdowns may occur
- Review services supporting patient tracking and follow-up (information systems, administrative support, patient tracking processes, etc.)
- Identify and document good practices, as well as opportunities to address problematic practices

Diagram:

- Screening → Abnormal Result? (Y/N)
  - Y → Diagnostic → Cancer? (Y/N)
    - Y → Workup and Treatment Planning → Treatment & Monitoring
    - N → Palliative Care
  - N → Metastatic Management
  - N → Survivorship

Breast Cancer Task Force
Uniting to End Disparity
Select Examples of Findings

<table>
<thead>
<tr>
<th>Process</th>
<th>% facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of Navigation Services</td>
<td>33%</td>
</tr>
<tr>
<td>Breast Imaging Center directs patient to follow up care</td>
<td>29%</td>
</tr>
<tr>
<td>Tracking of patient with cancer diagnosis</td>
<td>52%</td>
</tr>
<tr>
<td>Allows Self Referrals for Screening Mammograms</td>
<td>14%</td>
</tr>
<tr>
<td>Breast Imaging Center calls patients with abnormal results to explain</td>
<td>52%</td>
</tr>
<tr>
<td>results and advise on next steps</td>
<td></td>
</tr>
<tr>
<td>Radiation oncology consult prior to breast conserving surgery</td>
<td>33%</td>
</tr>
<tr>
<td>Have a survivorship care plan</td>
<td>15%</td>
</tr>
</tbody>
</table>
TESTING MODELS FOR CHANGE

A METRO-WIDE MAMMOGRAM SCREENING INITIATIVE
Quality Improvement Interventions

• Rapid Cycle Improvements (RCI)
• Mammography Technologist Boot Camp
• Train the Trainer Initiative
• Breast Imaging Team Education
• Mammography and Treatment Quality Reports
• Navigation
Interventions – RCI

<table>
<thead>
<tr>
<th>Did patient reminders reduce no shows and loss to follow up?</th>
<th>BASELINE</th>
<th>POST IMPROVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reminder call about appointment</td>
<td>All sites N=27</td>
<td>RCI sites n=14</td>
</tr>
<tr>
<td></td>
<td>48%</td>
<td>21%</td>
</tr>
<tr>
<td>Call no-show patients</td>
<td>19%</td>
<td>0%</td>
</tr>
<tr>
<td>Call to follow up with patients who have abnormal results</td>
<td>56%</td>
<td>50%</td>
</tr>
<tr>
<td>No show rate for screening mammograms</td>
<td>22%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Adapted Deming PDCA cycle for continuous improvement
Interventions - Mammography Technologist  Boot Camp

Scores Improved
N = 234  94%

<table>
<thead>
<tr>
<th></th>
<th>Pre Quiz</th>
<th>Post Quiz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.6</td>
<td>7.9</td>
</tr>
</tbody>
</table>
Train the Trainers, class 2014

- 11 trainings completed or scheduled
- 25 mammography technologists
- Unquantifiable partnership & camaraderie
- Quantifiable improvements!

[Images of four individuals]
Interventions - Mammography Technologist Training

“Excellent tool for mammography technologists, especially older technologists that learned from another technologist and then cross trained. Now, on to use them and break old habits!”
Interventions - Mammography & Treatment Quality Report

Dear Partner,

Thank you for your participation in the Statewide Screening Mammography Quality Initiative. The goal of this initiative is to collectively increase the quality of mammography across Illinois by actively monitoring mammography quality metrics and working with providers to make improvements when quality deficits are identified.

This is the fourth year of data collection and our first year featuring data from our statewide expansion, with participation from 160 facilities (75 facilities and respective affiliates submitting data for the first time). This data represents nearly 50% of mammography facilities by volume of Medicaid patients across the state of Illinois. Participating facilities receive enhanced Medicaid reimbursement for mammography. Facilities submitting data over several years, saw improvements in the quality of data submitted due to lessons learned and experience gained through everyone’s efforts. Results from the first two years of data collection were published in the American Journal of Roentgenology in a paper entitled: Beyond the Mammography Quality Standards Act: Measuring the quality of breast cancer screening programs.

Interpreting this report: This report is based on data submitted by your facility using the data collection forms provided, reflecting breast cancer screening practices in Calendar Year 2011. It requires both accurate numerator and denominator data and accurate inclusion of data that originated solely from screening mammograms. The report contains a description of each measure and when available, a benchmark, guideline, or average relevant to each histogram for comparison purposes.

Your Facility Data Summary: The table below is a brief overview of the measures, respective benchmarks, your facility measures and whether your facility met or did not meet each benchmark for the year.

<table>
<thead>
<tr>
<th>Measure</th>
<th>BCSC 2009</th>
<th>BCSC Benchmark</th>
<th>Your Facility</th>
<th>Met Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recall Rate</td>
<td>9.2%</td>
<td>5-14%</td>
<td>7%</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up imaging within 12 months</td>
<td>NA</td>
<td>&gt;90%</td>
<td>99%</td>
<td>Y</td>
</tr>
<tr>
<td>Follow-up imaging within 30 days</td>
<td>NA</td>
<td>&gt;90%</td>
<td>79%</td>
<td>N</td>
</tr>
<tr>
<td>Abnormal screen resolved as needing biopsy</td>
<td>12.2%</td>
<td>8-26%</td>
<td>13%</td>
<td>Y</td>
</tr>
<tr>
<td>Biopsy recommended</td>
<td>70.8%</td>
<td>&gt;70%</td>
<td>100%</td>
<td>Y</td>
</tr>
<tr>
<td>Biopsy deferred within 60 days</td>
<td>NA</td>
<td>&gt;20%</td>
<td>77%</td>
<td>N</td>
</tr>
<tr>
<td>Cancer among abnormal screens (PPV1)</td>
<td>4.2%</td>
<td>3-8%</td>
<td>7%</td>
<td>Y</td>
</tr>
<tr>
<td>Cancer among biopsies (PPV 3)</td>
<td>28.9%</td>
<td>20-40%</td>
<td>23%</td>
<td>Y</td>
</tr>
<tr>
<td>Cancer detection rate (cancer among screened)</td>
<td>4.1 per 1000</td>
<td>3.10 per 1000</td>
<td>2.9 per 1000</td>
<td>Y</td>
</tr>
<tr>
<td>Proportion early stage</td>
<td>73.6%</td>
<td>50-60%</td>
<td>67%</td>
<td>Y</td>
</tr>
<tr>
<td>Proportion minimal</td>
<td>53.6%</td>
<td>&gt;30%</td>
<td>44%</td>
<td>Y</td>
</tr>
</tbody>
</table>

*BCSC 2009: Breast Cancer Surveillance Consortium data as of 2009, representing the median or average for facilities submitting to BCSC. BCSC Benchmarks are those developed by the Chicago Breast Cancer Quality Consortium in collaboration with our expert mammography advisory committee.
SAVING LIVES
ONE WOMAN AT A TIME

A METRO-WIDE MAMMOGRAM SCREENING INITIATIVE
Patient Navigation Continuum
Freeman, adapted from Cancer Epidemiology Biomarkers & Prevention, April 2003

Outreach Navigator | Diagnostic Navigator | Oncology Navigator | Post Treatment/ QOL / Survival

Prevention | Early Detection | Diagnosis Incidence | Treatment | Post Treatment / Quality of Life | Survival / Mortality

Financial Navigation
Navigation Programs in Chicago

• 2012 Outreach Capacity Survey
  – N=44 respondents
  – 39 hosted educational sessions
    • 30 Provided Navigation
      – 18 Navigation to free or low cost mammograms
        » 15 – Medical Facilities (In-reach)
        » 3 – Nonprofits/Community Organizations – (Outreach)
MCBCTF Community Health Interventions

Beyond October
- Prevention
- Early Detection
- Diagnosis Incidence
- Treatment

Extra Help, Extra Care
- Post Treatment / Quality of Life
- Survival / Mortality

Beyond Enrollment
Outreach, Education and Navigation
Areas of Impact

• Population Served
  – Metropolitan Chicago (Cook, DuPage and Lake Counties)
    • Primary focus for community-based outreach – Southside

• People
  – 1,200 -1,400 women navigated annually
  – Women of color aged 40+
  – Publically insured or uninsured, some newly insured through ACA

• Aims
  – Improving breast health outcomes
  – Improving women's access to primary and preventive healthcare
  – Assisting uninsured enroll in health insurance
  – Assisting newly insured to connect to high-quality PCPs
Outreach, Education and Navigation
Accomplishments

In CY 2014:

• We reached 6,916 women from targeted populations regarding breast cancer disparities and their causes, and the importance of primary care and health insurance.

• We educated 1,845 women from targeted populations on breast cancer and healthcare access.

• We navigated 1328 women and scheduled 806 screening appointments

• We navigated 595 women to completed screenings.

• We navigated 185 women through diagnostics; and 7 through treatment
Breast Cancer Disparity at the Community Level and Distribution of Partnering Mammography Facilities
Recall: Chicago community areas with the highest 2000-2005 average annual breast cancer mortality rates
Geographical Distribution of Navigation Clients
PROMOTING SYSTEM CHANGE THROUGH POLICY ANALYSIS AND ADVOCACY
Many Policy Successes in Illinois

- PL 95-1045 and PL97-068 The Breast Cancer Disparities Reduction Act
  - Created the nation’s first mammography quality surveillance program embedded in Illinois Medicaid, eliminated copays for screening mammograms, piloted navigation in Medicaid
  - Discouraged providers from charging image transfer fees
  - Funding for the Illinois Breast and Cervical Cancer Program
  - Encouraged city of Chicago to improve quality of mammography
National Policy Issues

• Improving the Mammography Quality Standards Act to require rigorous mammography audits

• Adding breast care (mammography and treatment) quality metrics to Medicare and the National Breast and Cervical Cancer Early Detection Program

• Network adequacy – Are Centers of Excellence and Commission on Cancer Accredited Cancer Programs required to be in network?

• Medicaid reimbursement rates? How low is too low?

• Deductibles as a deterrent to diagnostic follow up and treatment
Evidence of impact & improvement -

Data Source: Illinois Department of Public Health Vital Statistics
Data Prepared By: Sinai Urban Health Institute

![Graph showing the decrease in death rates per 100,000 females from 1981-83 to 2008-10, with a 40% decrease in Black death rates.](#)
Access + Quality = Best Chance at Survival
We can do this TOGETHER!
Every Woman Deserves an Equal Chance at Survival