West Virginia

**State Health Agency:** West Virginia Department of Health and Human Resources, Bureau for Public Health  
**State Health Official:** Dr. Rahul Gupta, Commissioner and State Health Officer

The West Virginia Association of State and Territorial Health Officials (ASTHO) Breast Cancer Learning Community initially focused on improved data collection around breast cancer screening, diagnosis, and treatment in year one. In year two, the focus was to implement evidence-based strategies. One health system and 15 healthcare providers were identified with the data from year one as having a high population of uninsured/underinsured women, limited mammography facilities, and late stage diagnosis and delayed entrance into treatment. The Minnie Hamilton Healthcare System was anxious to improve the time from screening to diagnosis and time from diagnosis to treatment. Plan-Do-Study-Act quality improvement cycles were conducted. Changes to improve screening rates could be made quickly, including implementation of revised data collection tools for Minnie Hamilton Healthcare Systems and West Virginia University’s Bonnie’s Bus Mobile Mammography Unit.

Plans for year three are to expand to additional sites, using the same data parameters set in year two. The West Virginia ASTHO Breast Cancer Learning Community team will also use the analyzed patient surveys to identify the leading barriers to care and work to address these statewide, beginning with the pilot project areas.

**Aim Statement**

By June 30, 2018, reduce breast cancer disparities in West Virginia by (1) Increasing by 20 percent from baseline the percent of women with an abnormal screening result who are diagnosed within 60 days; (2) Increase by 20 percent from baseline the percent of women with a diagnosis who begin treatment within 60 days; and (3) Reduce by 50 percent from baseline the percent of women diagnosed with late stage (Stages 3 & 4) breast cancer who receive delayed treatment, among women in two target counties by improving primary care and cancer center coordination through tracking, navigation, and provider education.

**Burden of Breast Cancer**

From 2008 to 2012, West Virginia had a breast cancer incidence rate of 111.2 per 100,000 people, which was below the national average of 123.0. Screening and treatment barriers persist in counties around Huntington and Charleston areas with relatively high access to healthcare services. Rates of late stage diagnosis rates are usually associated with the availability of mammography centers in each county and their ability to get to these facilities. Additionally, qualitative data suggests that some women in West Virginia may be uncomfortable receiving mammograms and seeking breast cancer treatment for many reasons, including a predominant sense of fatalism and prioritization of family over self.
Target Populations

Due to the relatively small proportion of West Virginians who are African American (3.6%), other socioeconomic groups received greater focus to maximize impact. Breast cancer disparities in West Virginia exist primarily by socioeconomic status and rural/urban residency, not by race or ethnicity. West Virginia is a Medicaid expansion state, but those who remain uninsured or underinsured may have less healthcare access and receive mammograms at lower rates. Using GIS, two rural counties were identified to pilot quality improvement interventions. The two counties, Gilmer and Calhoun are in the center of the state, have no mammography facilities, have a history of late stage diagnosis and have a high rate of uninsured women. The only healthcare facility in each county, Minnie Hamilton Healthcare System, was very interested in being a part of the project. Having a healthcare facility motivated to improve breast cancer care for the women they serve was key in selecting these areas.

Key Partners

State
- West Virginia Breast and Cervical Cancer Screening Program
- West Virginia Office of Minority Health
- West Virginia Cancer Registry
- West Virginia Comprehensive Cancer Control Program
- West Virginia Health Statistics Center
- West Virginia WISEWOMAN Program
- West Virginia Office of Maternal, Child and Family Health

Healthcare Payers
- Bureau for Medical Services (Medicaid)
- Medicaid MCOs – Unicare, Aetna, WV Healthy Families, The Health Plan

Providers
- Charleston Area Medical Center Cancer Center
- Cabell-Huntington Hospital
- Edwards Cancer Center
- Minnie Hamilton Health System

Local/Regional
- Minnie Hamilton Healthcare System

Community/Clinical
- Bonnie’s Bus Mobile Mammography Program
- WV Komen Affiliate

Universities
- West Virginia University Cancer Institute, Cancer Prevention and Control
- Marshall University School of Medicine
Evidence-Based Strategies and Best Practices Used

Breast Cancer Screening

- Fliers have been created and sent to recruit more women to sign up for mammograms through Bonnie’s Bus in communities with scheduled visits.
- The West Virginia ASTHO team worked with the West Virginia University (WVU) Cancer Institute to develop an educational video (made available on a jump drive) for patients to view in an exam room or in the lobby that educates women about breast cancer, what is screening, and what to do about abnormal results. A desk-top sized flipchart was also developed as an educational tool for providers to discuss breast cancer screening and follow-up and treatment with patients. Both the video and flipchart were developed based upon Understanding CANCER: A study Guide for Appalachian Community Members.

Follow-Up Time Between Abnormal Screening Results and Initiation of Treatment

- Surveys were mailed to more than 7,000 women in the Minnie Hamilton Healthcare System service area to identify patient barriers to receiving care after being screened. There were 150 surveys returned (a return rate of 0.46%).

Delivery of Quality Treatment

- The West Virginia ASTHO team, which includes Charleston Area Medical Center (CAMC), is initiating a project, Enhancing Community Health Outcomes (ECHO), under the guidance of the MD Anderson Cancer Center to improve how primary care physicians care for breast cancer patients and survivors in rural areas through telementoring. Project ECHO will provide a platform for rural providers to present breast cancer cases to a group of cancer specialists to receive guidance on treatment of the patient. The model is based on four principles: (1) use of technology; (2) sharing best practices; (3) using case-based learning; and (4) monitoring outcomes. A team from West Virginia attended immersion training in Houston, TX in mid-May 2017. The team consisted of a radiation oncologist, nurse navigator, psychologist, researcher from the Cancer Center, IT support, and an Office of Maternal, Child and Family Health staff person. To assess the interest of clinicians (physicians, nurse practitioners, and physician assistants) in participating, partners are being asked to share this survey as a means of assessing interest and reaching out to individuals who may have a case or cases to present.
- A Nurse Navigator was hired at Minnie Hamilton Healthcare System to assist women with timely screening and diagnostic procedure for breast cancer. The Nurse Navigator conducts community education on breast cancer as needed, and provides support to the mobile mammography unit, Bonnie’s Bus, with recruiting women to come to the mobile mammography sites.
- A Health Information Specialist through West Virginia Breast and Cervical Cancer Screening Program (WVBCCSP) and WVU Cancer Institute conducts a proactive system to improve breast cancer screening. If a woman is due for a mammogram, a packet of information and reminder letter is mailed to her home. If the woman doesn’t call to schedule her exam, two follow-up
phone calls are made. This personal contact has shown positive results in women scheduling mammograms and coming in for the exam.

**Key Project Successes**

- The educational videos and flipcharts were distributed to healthcare providers in the Minnie Hamilton Healthcare System in March 2017. Data from Minnie Hamilton has shown a steady increase in screening rates compared to April, May and June of 2016.
- Project ECHO will be implemented in West Virginia within the next few months. This will be the first breast cancer ECHO in the nation.
- Bonnie’s Bus, mobile mammography unit, has 10 additional visits planned during the 2017 season.
- Collaboration and sharing of data and care plans between WV BCCSP, insurance payers, and healthcare providers.
- Standardized patient follow-up was developed, implemented and conducted by the mammographers on Bonnie’s Bus was developed and implemented in the 2017 season.
- Linkages with the West Virginia Department of Health and Human Resources Data Warehouse has allowed a data pull from this one site that captures all Medicaid and Medicaid Managed Care Organization breast cancer data. This has made studying the data much easier. Review of the breast cancer from the Data Warehouse revealed that the average time from screening to diagnosis is 29.5 days and average time from diagnosis to treatment is 45.3 days. This is below the National Early Detection of Breast and Cervical Cancer Screening Program standard of no more than 60 days.

**Project Sustainability**

- West Virginia and the CAMC are initiating Project ECHO under the guidance of the MD Anderson Cancer Center to improve how primary care physicians care for breast cancer patients and survivors in rural areas.
- Education materials developed in cooperation with the Minnie Hamilton Health System will continue to be available to clinics for patient education.