

# The Florida Breast Cancer Early Detection and Treatment Referral Program Report

(Florida Breast and Cervical Cancer Early Detection Program)

2018

Rick Scott Governor

Celeste Philip, MD, MPH Surgeon General and Secretary

# **Table of Contents**

Introduction	4
Problem Statement	4
Purpose of the Report	4
Population-Based Breast Cancer Burden in Florida	4
Breast Cancer Risk Factors	4
Breast Cancer Incidence	5
Breast Cancer Mortality	6
Breast Cancer Screening	8
Disparities in Breast Cancer in Florida	8
Population-Based Cervical Cancer Burden in Florida	9
Cervical Cancer Risk Factors	9
Cervical Cancer Incidence	9
Cervical Cancer Mortality	10
Disparities in Cervical Cancer in Florida	10
Cervical Cancer Screening	11
Evidence-based Interventions to Increase Breast and Cervical Cancer Screening	12
Florida Breast Cancer Early Detection and Treatment Referral Program Overview	12
Florida Breast and Cervical Cancer Early Detection Program Services	14
Strategies and Partnerships	14
FBCCEDP Racial/Ethnic Cancer Screening Disparities	15
FBCCEDP Success Stories	16
Hillsborough Region Success Story: Reducing the Barriers; Access to Breast Mammography for Federally Qualified Health Center (FQHC) Eligible Women	16
Duval County Region Success Story: Early Detection is Key Empowering Womer Marketing Campaign	
Conclusions	18
Appendix A. Data Sources and Methods	20
Appendix B. FBCCEDP Patient Report Form	21
Poforoncos	27

# **Executive Summary**

The state of Florida is home to more than 20 million diverse, multi-cultural, and multi-lingual people in which cancer is a personal issue for many. In fact, Florida ranks second in the nation in newly diagnosed cancer cases and mirrors national trends for the top cancer sites. On average, there are over 110,000 new cancers diagnosed and reported annually to the statewide cancer registry, the Florida Cancer Data System (FCDS). Advancing age is the top risk factor for the development of cancer. Overall, approximately 60 percent of newly diagnosed cancers and 70 percent of cancer deaths occur in persons age 65 and older. This age group accounts for approximately 18 percent of Florida's total population. However, cancer occurrence in Florida differs not only by age, but also by sex, race, geography, and stage of disease at diagnosis depending on the cancer site(s).

Cancer is the second leading cause of death, with over 44,000 deaths annually in Florida. Of the leading causes of death in Florida, cancer ranks first in terms of years of potential life lost, surpassing heart disease and stroke combined and unintentional injuries.<sup>2</sup> Moreover, cancer constitutes an enormous economic burden on Floridians, with approximately \$4 billion in hospital charges for in-patient hospital care in which cancer is the primary diagnosis.<sup>1</sup> During 2014, nearly 10 percent of all hospitalizations that occurred among women listed breast and/or cervical cancer as the underlying cause.<sup>1</sup> Additionally, during 2014 charges due to breast and cervical cancer accounted for over \$260 million in hospital charges.<sup>1</sup>

Congress passed the Breast and Cervical Cancer Mortality Prevention Act of 1990; Public Law 101-354, which directed the Centers for Disease Control and Prevention (CDC) to create the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). Currently, all fifty states, the District of Columbia, six United States territories, and thirteen American Indian/Alaska Native tribes or tribal organizations are funded to provide breast and cervical cancer screenings.

The Florida Breast Cancer Early Detection and Treatment Referral Program was authorized by the Florida Legislature and signed into law on May 23, 2001. As required by section 381.932, Florida Statutes, the State Surgeon General must submit an annual report to the appropriate substantive committees of the Legislature that includes a description of the rate of breast cancer morbidity (incidence) and mortality in the state from the FCDS; and the extent to which women participate in breast cancer screenings from the Behavioral Risk Factor Surveillance System (BRFSS).

The report includes data on the scope of breast and cervical cancer in Florida and how the Florida Breast Cancer Early Detection and Treatment Referral Program, or also known as the Florida Breast and Cervical Cancer Early Detection Program (FBCCEDP), is addressing breast and cervical cancer prevention for the population; how partners are coordinating preventive efforts for breast and cervical cancer; recent successes; and recommended actions to improve breast and cervical cancer prevention efforts in Florida.

#### Introduction

#### **Problem Statement**

Currently in Florida, there are over 2.1 million women between the ages of 50-64, of which 647,141 (30%) are below or at 200 percent the Federal Poverty Level (FPL).<sup>3</sup> Those same-aged women who are below or at 200 percent of the FPL and have no insurance comprise 25.8 percent of Florida's at-need population. Currently, FBCCEDP reaches out to only 8.1 percent of those at-need women for breast and cervical cancer screenings because of structural barriers they may face. These barriers include lack of transportation or an inability to go to doctor's appointments because of work hours. The FBCCEDP is currently working on strategies to reduce these structural barriers, as well as other evidence-based interventions, to increase breast and cervical cancer screenings to a targeted number of at-need women.

#### **Purpose of the Report**

In 2001, the Florida Legislature passed a bill that required the State Surgeon General to submit an annual report to the appropriate substantive committees of the Legislature.

Statutory requirements of the report include:

A description of the rate of breast and cervical cancer morbidity and mortality

 The extent to which women are participating in breast cancer and cervical cancer screening as reported by the Behavioral Risk Factor Surveillance System (BRFSS)

The report discusses evidence-based recommendations to reduce the number of new cases of breast and cervical cancer, and to improve screening education and awareness. Data for the report were compiled from multiple sources, including state-based telephone surveys, vital statistics, and incidence data. These data provide a comprehensive picture of breast and cervical cancer burden within specific populations. More detailed information about each of the data sources is available in Appendix A.

## **Population-Based Breast Cancer Burden in Florida**

Breast cancer, as with most cancers, is classified based on its extent of spread in the body. Mammography is the single most effective method of early detection since it can identify cancer several years before physical symptoms develop.<sup>4</sup> However, women should know their breasts and report changes of size, symmetry, or skin appearance to their doctor.<sup>4</sup>

#### **Breast Cancer Risk Factors**

There are factors that are modifiable such as physical activity, maintaining a healthy weight, and minimizing alcohol consumption that can reduce a woman's risk of getting breast cancer. The American Cancer Society (ACS) recommends you maintain a healthy weight throughout your life by balancing your food intake with physical activity and avoiding excessive weight gain, and recommends 45 to 60 minutes of physical activity or exercise, five or more days a week to reduce the risk of breast cancer.<sup>4</sup>

Breastfeeding a baby and having a first child before the age of 30 also decreases a woman's risk of developing breast cancer. Other factors that may decrease your risk is physical activity, and maintaining a healthy body weight.<sup>4</sup>

However, factors that can increase a woman's risk for breast cancer are, postmenopausal women who take estrogen and progesterone hormone therapy, Type 2 diabetes, dense breast,

and a family history of breast cancer.<sup>4</sup> Women should discuss the risks and benefits of hormone replacement therapy, including the possible impact on cancer risk, with their health care provider before starting therapy or if they have been on hormones for an extended period of time.

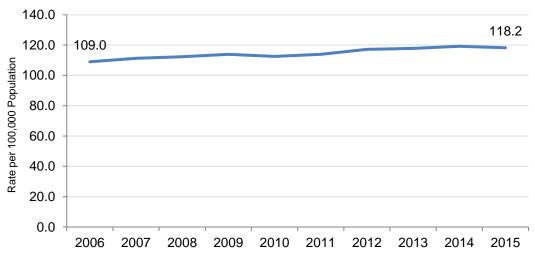
#### **Breast Cancer Incidence**

Breast cancer is the most common cancer among women, excluding basal and squamous skin cancer in the United States. Additionally, a small number of men also develop breast cancer. Breast cancer is the second most common cause of cancer death in women, second only to lung cancer. Breast cancer, as with most cancers, is classified on its extent of spread in the body. Treatment is most successful when breast cancer is discovered early in the localized stage.<sup>4</sup>

Breast cancer is predominantly a disease affecting women; in 2016, 2,904 women in Florida died of breast cancer. In 2015, there were 15,860 new cases of breast cancer among women. Additionally, in 2014, 33.4 percent of breast cancer cases were diagnosed at an advanced stage.<sup>2</sup>

Figure 1 represents the statewide breast cancer incidence rates from 2006 through 2015. The Florida age-adjusted breast cancer incidence rate was 109.0 per 100,000 women in 2006 and 118.2 per 100,000 women in 2015, indicating an increase of 8.4 percent. Additionally, breast cancer incidence in women has increased during this 10-year period.

Figure 1. Age-Adjusted Breast Cancer Incidence Rate per 100,000 Women, Florida, 2006-2015



Source: Florida Department of Health, Florida Cancer Data System

Figure 2 depicts age-specific incidence rates for women. In 2015, the age-specific breast cancer incidence rate was 70.0 per 100,000 for the 20-49 age group; 256.7 per 100,000 for the 50-64 age group; and 377.3 per 100,000 for the 65 and older age group. The highest incidence rate was observed among women aged 65 and older. Since 2006, there has been a significant increase in the age-specific breast cancer incidence rate among women aged 50-64 and 65+.

450 377.3 400 Rate per 100,000 Population 339.8 350 300 256.7 241.7 250 200 150 69.9 70.0 100 50 0 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 Age Group 20-49 50-64 65+

Figure 2. Age-Specific Breast Cancer Incidence Rate per 100,000 Women by Age Group, Florida, 2006-2015

Source: Florida Department of Health, Florida Cancer Data System

Figure 3 depicts age-adjusted incidence rates for women by race and ethnicity. In 2015, the age-adjusted breast cancer incidence rate was 124.0 per 100,000 among non-Hispanic Whites; 107.2 per 100,000 among non-Hispanic Blacks; and 82.9 per 100,000 among Hispanics. The highest incidence rate was observed among non-Hispanic Whites. Since 2010, incidence rates have increased among non-Hispanic Whites and non-Hispanic Blacks. The data reflect an increase by 3.5 percent among non-Hispanic Whites, an increase by 8.1 percent among non-Hispanic Blacks, and a decrease by 1.54 percent among Hispanics.

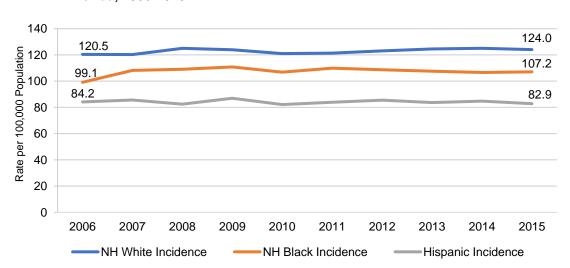


Figure 3. Age-Adjusted Breast Cancer Incidence Rate per 100,000 Women by Race-Ethnicity, Florida, 2006-2015

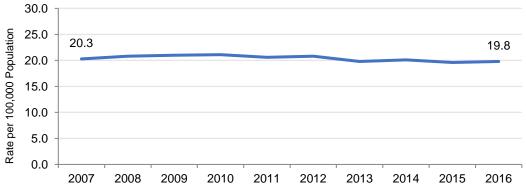
Source: Florida Department of Health, Florida Cancer Data System

#### **Breast Cancer Mortality**

In Florida, age-adjusted mortality rates for breast cancer that occurred among women has decreased 34.2 percent from peak rates in 1995 (30.1 per 100,000). This decline may be

attributable to improvements in early detection and treatment. Figure 4 illustrates the statewide age-adjusted breast cancer mortality rates per 100,000 women from 2007 through 2016. The age-adjusted breast cancer mortality rate decreased from 20.3 per 100,000 women in 2007 to 19.8 per 100,000 women in 2016, a 2.5 percent decrease.

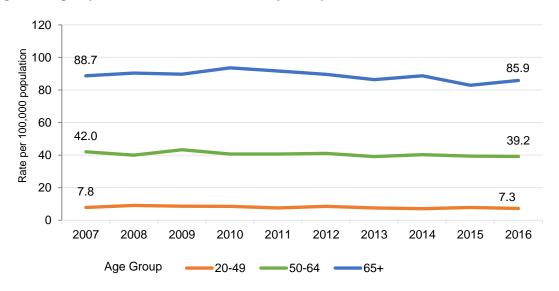
Figure 4. Age-Adjusted Breast Cancer Mortality, Rate per 100,000 Women, Florida, 2007-2016



Source: Florida Department of Health, Bureau of Vital Statistics

Figure 5 depicts the age-specific breast cancer mortality rate per 100,000 women. In 2016, the rate was 7.3 for the 20-49 age group; 39.2 for the 50-64 age group; and 85.9 for the 65 and older age group. Mortality rates have remained stable among women aged 20-49 and decreased 6.7 percent among women aged 50-64. However, breast cancer mortality rates increased 9.0 percent between 2007 and 2010 among women aged 65 and older. Since 2010, mortality rates have decreased by 8.2 percent among women aged 65 and older.

Figure 5. Age-Specific Breast Cancer Mortality Rate per 100,000 Women, Florida, 2007-2016



Source: Florida Department of Health, Bureau of Vital Statistics

Figure 6 depicts the age-adjusted breast cancer mortality rate per 100,000 women. In 2015, the rate was 41.3 among non-Hispanic Blacks, 33.3 among non-Hispanic Whites, and 26.4 among Hispanics. Since 2012, the rate has remained relatively stable among all racial/ethnic groups.

50 46.9 45 41.3 40 Rate Per 100,000 Population 37 35 33.3 30 27.1 25 20 15 10 5 0 2006 2007 2008 2009 2010 2013 2014 2011 2012 2015 NH White Mortality NH Black Mortality Hispanic Mortality

Figure 6. Age-Adjusted Breast Cancer Mortality Rates among Women, by Race-Ethnicity, Florida, 2006-2015

Source: Florida Department of Health, Bureau of Vital Statistics

# **Breast Cancer Screening**

In 2012, the United States Preventive Services Task Force (USPSTF) recommended biennial mammography screening among women aged 50 to 74 years.<sup>5</sup> Primary prevention of breast cancer includes adhering to recommendations related to modifiable risk factors and decreasing one's risk. Mammography is the single most effective method of early detection since it can identify cancer several years before physical symptoms develop. Nevertheless, women should know size, symmetry, and skin appearance of their breasts and report any changes to their doctor.<sup>5</sup> An objective of Healthy People 2020 is to increase the proportion of women who receive breast cancer screening from a baseline of 73.7 percent to 81.1 percent.<sup>6</sup>

Table 1. Percent of Women Receiving Breast Cancer Screenings, Florida, 2016

	Breast Cancer Screening (%)
	Mammogram*
Overall	60.8
Race/Ethnicity	
NH White	60.9
NH Black	61.7
Hispanic	60.7

Source: Florida Behavioral Risk Factor Surveillance System

#### **Breast Cancer Screening**

 Mammogram - Percent of women 40 years of age and older who received a mammogram in the past year.<sup>5</sup>

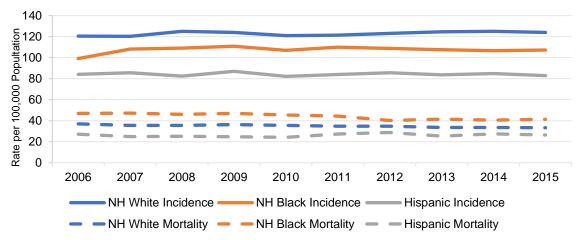
#### **Disparities in Breast Cancer in Florida**

We continue to observe a disparity gap. Non-Hispanic Black women do not have the highest incidence of breast cancer compared to non-Hispanic White women, yet they die from breast cancer at higher rates. There are individual, medical, and system level factors that contribute to disparities in breast cancer treatment. A significant barrier that occurs among women receiving

<sup>\*</sup> Denotes 2016 Data

breast cancer treatment is a system level problem, specifically care coordination and scheduling.<sup>7</sup>

Figure 7. Age-Adjusted Breast Cancer Rate among Women, Florida, 2006-2015



Source: Florida Department of Health, Bureau of Vital Statistics and Florida Cancer Data System

# **Population-Based Cervical Cancer Burden in Florida**

Cervical cancer is cancer of the lower part of the uterus that connects to the vagina. Cervical cancer is highly preventable and is caused by the Human Papillomavirus, or HPV, which is spread through sexual contact.<sup>8</sup>

#### **Cervical Cancer Risk Factors**

HPV infection is one of the important modifiable risk factors for cervical cancer. HPV is a group of more than 100-related viruses. HPV is passed from one person to another during skin-to-skin contact. HPV can be spread during sex including vaginal intercourse, anal intercourse, and during oral sex.<sup>8</sup>

The Advisory Committee on Immunization Practices (ACIP) recommends routine HPV vaccination at age 11 or 12 years for boys and girls. ACIP also recommends vaccination for females through age 26 years and for males through age 21 years who were not adequately vaccinated previously. Previous studies have shown that women who are vaccinated against HPV prior to becoming sexually active significantly lower their risk of cervical cancer.<sup>9</sup>

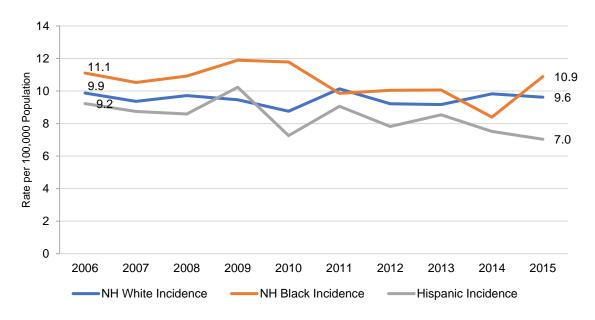
Women who smoke are about twice as likely as non-smokers to get cervical cancer. Women who get regular Pap testing decrease their risk of cervical cancer by catching abnormal cells before they advance to cancer. Maintaining a healthy weight and healthy lifestyle decreases one's risk as well.<sup>8</sup>

#### **Cervical Cancer Incidence**

The age-adjusted incidence rate during 2015 was 8.7 per 100,000 and differences exist by race/ethnicity. Figure 8 depicts age-adjusted incidence rates for cervical cancer by race and ethnicity. In 2015, the age-adjusted breast cancer incidence rate was 9.6 per 100,000 among non-Hispanic Whites; 10.9 per 100,000 among non-Hispanic Blacks; and 7.0 per 100,000 among Hispanics. The highest incidence rate was observed among non-Hispanic Blacks. Since 2010, incidence rates increased among non-Hispanic Whites and non-Hispanic Blacks. The

data reflect a decrease by 3.0 percent among non-Hispanic Whites, a decrease by 1.8 percent among non-Hispanic Blacks, and a decrease by 23.9 percent among Hispanics.

Figure 8. Age-Adjusted Cervical Cancer Incidence Rates, by Race-Ethnicity, Florida, 2006-2015

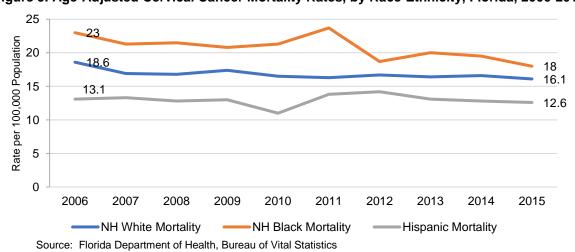


Source: Florida Department of Health, Bureau of Vital Statistics and Florida Cancer Data System

#### **Cervical Cancer Mortality**

In Florida, age-adjusted mortality rates for cervical cancer have decreased by 18 percent from 2006. This decline may be attributable to improvements in early detection and treatment. Figure 9 illustrates the statewide age-adjusted cervical cancer mortality rates per 100,000 women from 2006 through 2015 stratified by race/ethnicity. Overall, there have been declines in the age-adjusted cervical cancer mortality rates during this time period.

Figure 9. Age-Adjusted Cervical Cancer Mortality Rates, by Race-Ethnicity, Florida, 2006-2015



## **Disparities in Cervical Cancer in Florida**

Nearly twice as many non-Hispanic Black women die from cervical cancer as compared to non-Hispanic White women. Non-Hispanic Black women had higher incidence rates than non-Hispanic White women during the 10-year time period. Additionally, new cases of cervical cancer are more common among non-Hispanic Black women, and cervical cancer mortality is higher among non-Hispanic Blacks.

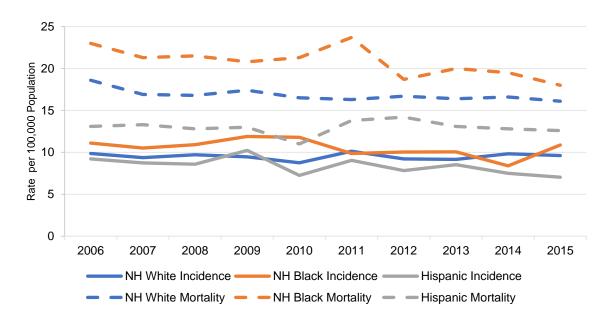


Figure 10. Age-Adjusted Cervical Cancer Rates, Florida, 2006-2015

Source: Florida Department of Health, Bureau of Vital Statistics and Florida Cancer Data System

#### **Cervical Cancer Screening**

The USPSTF recommends screening for cervical cancer in women aged 21 to 65 years with cytology every three years or, for women age 30 to 65 years with a combination of cytology and HPV, testing every five years. Abnormal cervical cells rarely cause symptoms. However, detection of the earliest changes leading to cancer development is possible through the use of Pap test screening, as recommended by healthcare providers. The majority of invasive cervical cancers can be prevented through screening.<sup>8</sup>

Table 2. Current Cervical Cancer Screening Practices among Women, Florida, 2016

	Cervical Cancer Screening
	PAP
Overall	50.3%
Race/Ethnicity	
NH White	47.4%
NH Black	58.0%
Hispanic	54.4%

Source: Florida Behavioral Risk Factor Surveillance System

#### **Cervical Cancer Screening**

 Pap Smear (PAP) - Percent of women 21 years of age and older who received a Pap in the past year.<sup>8</sup>

#### Evidence-based Interventions to Increase Breast and Cervical Cancer Screening

While screening rates are improving, challenges still remain in attaining Healthy People 2020 objectives of increasing the proportion of women who receive a breast cancer screening and cervical cancer screening based on the current guidelines. Therefore, the FBCCEDP is implementing strategies to reduce barriers for women needing breast cancer screening. During FY 16-17, FBCCEDP's 16 regions received state and federal funding to increase breast and cervical cancer screenings for program-eligible women. Additionally, funding was provided to increase awareness of the importance of breast and cervical cancer screenings statewide. Various evidence-based interventions, such as client reminders, provider reminders, provider assessment and feedback, and ways to reduce structural barriers, were used to reach women who were enrolled in the program or referred to other screening alternatives. Provider education, creation of new partnerships, and working with health systems to increase population-based screening rates have been implemented.

# Florida Breast Cancer Early Detection and Treatment Referral Program Overview

The Florida Breast Cancer Early Detection and Treatment Referral Program was authorized by the Florida Legislature on July 1, 2001. From this, the Florida Breast and Cervical Cancer Early Detection Program (FBCCEDP) was created at the Florida Department of Health.

The FBCCEDP, also known as the "Mary Brogan Program" is the screening program that provides services for breast and cervical cancer screening, some follow-up diagnostic services for abnormal screenings, and referral to the Department of Children and Families (DCF) for determination of eligibility for treatment for Medicaid-eligible women. Assistance in locating treatment options is provided to women not eligible for Medicaid. Major goals of the FBCCEDP include:

- Increasing cancer screening rates
- Promoting evidence-based breast and cervical cancer screening
- Reducing breast and cervical cancer health disparities
- Leveraging available resources through partnerships

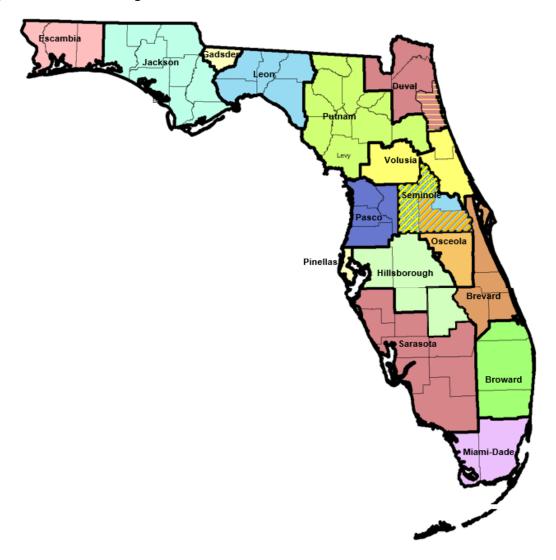
The eligibility requirements for women to be screened by the FBCCEDP include all of the following:

- Aged 50-64, and
- At or below 200 percent of the FPL, and
- Underinsured or uninsured

Women below age 50 who are symptomatic or have a family history of breast cancer, meet the eligibility requirements for poverty level, or are underinsured or uninsured may be screened by the program.

Sixteen regional sites, housed at county health departments, were established to allow women to obtain access to the FBCCEDP from all sixty-seven counties. The figure below displays the lead county locations, which are: Brevard, Broward, Duval, Escambia, Gadsden, Hillsborough, Jackson, Leon, Miami-Dade, Osceola, Pasco, Pinellas, Putnam, Sarasota, Seminole, and Volusia Counties.

Figure 11. FBCCEDP Regions



# Florida Breast and Cervical Cancer Early Detection Program Services

The FBCCEDP promotes referrals through a variety of ways including collaborations with churches, participating in community events, and developing partnerships with health care providers. These collaborations have been an asset to reach at-need women who are unaware of the program and the services provided. Additionally, the program's collaboration with county health departments, Federally Qualified Health Centers, and physician offices increases awareness for women who lack access to breast and cervical cancer screenings. This results in an increase of the number of referrals to FBCCEDP.

The FBCCEDP educates the public through outreach efforts using program information sheets, public speaking events, media, direct-mail postcards sent to Florida residents in underserved counties, and banners. Also, the program collaborates with internal and external programs to educate women on the importance of breast and cervical cancer screenings. Through these efforts, the Program reaches high-risk women who lack insurance and overall health care.

The program collaborates with Medicaid to provide treatment and referral for those who have been diagnosed with breast or cervical cancer. If a woman is not approved for Medicaid, the FBCCEDP coordinator refers the patient to a physician or an agency that can provide treatment.

The Cancer Screening and Tracking System (CaST) is a database developed by CDC which contains data from the FBCCEDP patient reporting form. These data are used for in-house reports and to send to CDC bi-annually for assessment. CDC will conduct an in-depth analysis of the data, which includes eleven core indicators of that the Florida program should meet.

#### **Strategies and Partnerships**

Opportunities to recruit women to the program are conducted through outreach in churches, community groups, and local partnerships with health organizations. The goal is to increase breast and cervical cancer screenings among the disparate racial/ethnic population groups. Efforts in every Florida county are ongoing to ensure all women are aware of the services and have access to the FBCCEDP as well as similar screening and treatment programs, such as ACS or Susan G. Koman, for women who are not eligible to participate in the FBCCEDP.

Strategies for breast and cervical cancer screenings are the following:

- Increase breast cancer screenings for women over age 50.
- Increase outreach efforts to high-risk populations to educate women on breast and cervical cancer screening options and refer them for appropriate screening.
- Increase access for women to quality, accredited mammography facilities with reasonable waiting time for obtaining service.
- Educate on signs and symptoms and promote breast self-awareness.
- Increase awareness of inflammatory breast cancer for health care providers and women.

The FBCCEDP has an extensive collaborative network, including public and private sector partners. These collaborations draw strengths from each program to increase access to care for low income and underserved women. Each collaboration contributes to the effectiveness of the FBCCEDP operation.

Table 3. Internal and External FBCCEDP Partners

Internal Partners	External Partners
Bureau of Chronic Disease Prevention	Department of Children and Families-
	Medicaid Eligibility
Bureau of Community Health Assessment	Department of Transportation-Disadvantaged
	Transportation Program
Office of Minority Health and Health Equity	American Cancer Society
Florida Comprehensive Cancer Control	Florida Community Health Worker Coalition
Program	
Bureau of Clinic Management and	Florida Cancer Control and Research
Informatics	Advisory Council
Bureau of Family Health Services	Florida Association of Community Health
	Centers
Bureau of Epidemiology	Florida Rural Health Association
Office of Communications	Susan G. Komen
Office of Rural Health	University of Central Florida-Health ARCH
Public Health Research	South East American Indian Council

Table 4 depicts the total amount of services provided by the FBCCEDP during FYs 14-15, 15-16, and 16-17. The table shows that nearly 28,000 services were provided during FY 16-17. During FY 16-17, 13,462 women received mammography and Pap screenings and, among the women screened, 2 percent were diagnosed with cancer.

Table 4. Florida Breast and Cervical Cancer Early Detection Program, Services Provided and Cancers Identified, July 2014 through June 2017

	BREAST			CERVICAL			
	FY14-15	FY15-16	FY16-17	FY14-15	FY15-16	FY16-17	
Total Services Provided	26,827	29,066	27,973	4,931	4,015	3,207	
Women Receiving Mammogram and Pap Screenings	12,293	13,371	13,462	4,001	3,847	3,066	
Cancers Detected	*262	*283	*277	**47	**53	**48	

Source: Florida Department of Health, Bureau of Tobacco Free Florida, Breast and Cervical Cancer Early Detection Program

#### **FBCCEDP Racial/Ethnic Cancer Screening Disparities**

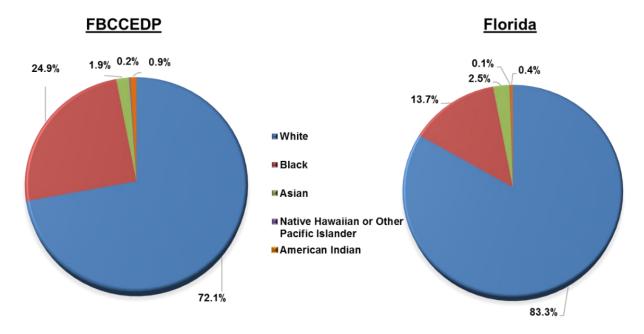
Racial/ethnic cancer disparities exist among women in Florida and there is a need to improve breast and cervical cancer health outcomes. Implementation of early detection statewide services has begun which will affect the incidence, prevalence, and mortality among at-need women in the state.

<sup>\*</sup> Denotes Breast Cancers

<sup>\*\*</sup> Denotes Cervical Cancers and Pre-Cancers

Currently, racial/ethnic disparities exist among women screened by FBCCEDP. Figure 12 depicts the comparisons of women aged 50-64 screened for breast cancer by race and ethnicity by the FBCCEDP as compared to the 2010 United States Census Bureau population of women for the same age group. The figures indicate that more effort should be conducted with targeted outreach to Asian, White, and non-Hispanic communities since the percentages are not aligned with Florida's 2010 US Census Bureau data. Evidence-based interventions will aid to increase the screenings for these populations.<sup>7</sup>

Figure 12. Percent of Women Screened for Breast Cancer by Race/Ethnicity, FBCCEDP as Compared 2010 US Census Bureau Florida Population for Women Aged 50-64, FY 2016-17



Sources: 2010 United States Census Bureau for women aged 50-64 Florida Breast and Cervical Cancer Early Detection Program

#### **FBCCEDP Success Stories**

The following two success stories demonstrate how FBCCEDP regional coordinators have implemented strategies to increase breast and cervical cancer screening in their regions.

Hillsborough Region Success Story: Reducing the Barriers; Access to Breast Mammography for Federally Qualified Health Center (FQHC) Eligible Women

#### **Summary**

The Breast and Cervical Cancer Early Detection Program within the Florida Department of Health (FDOH) in Hillsborough County serves Hardee, Highlands, Hillsborough and Polk Counties. The focus of the program is to remove barriers to those wanting access to quality mammography services in the community. To accomplish this, the BCCEDP-Hillsborough partnered with Suncoast Community Health Inc., and Tampa Family Health Centers Inc., who in-turn partnered with Direct Medical Imaging and Tampa Bay Mobile Mammography as community stakeholders to provide services in the community. The collaboration resulted in providing 412 women with breast and cervical cancer screening services.

#### Challenge

The breast and cervical cancer screening staff at FDOH in Hillsborough County realized that certain communities were unable to travel to screening facilities. Additionally, staff identified programmatic barriers that hindered communities' access to receiving the screening services.

#### Solution

Through the collaboration, a virtual "One-Stop" shop for screening services was developed and resulted in more than 412 women receiving screening services. The BCCEDP-Hillsborough partnership with community partners involved a collaborative approach, utilizing FDOH staff to enroll, provide patient navigation, and, if necessary, follow-up for all clients with a 14-day turnaround from screening to results using the mobile mammography van.

#### **Results**

From July 1, 2016 through June 30, 2017, 412 FQHC clients received mammography services from the BCCEDP-Hillsborough. Furthermore, based on last fiscal year's established baseline, there was a 103 percent increase in screenings of program eligible women. In addition, the two local FQHCs that participated in this collaborative effort showed a decline in clinic "no-show" rates. Notable increases have been made in the BCCEDP-Hillsborough overall screening goal which increased their respective Healthcare Effectiveness Data and Information Set numbers. In addition, a process was created to improve patient notification and scheduling of follow-up services, if needed, within a 14-day turnaround from date of service. In FY 17-18, on the basis of these achievements and overall success, the BCCEDP-Hillsborough will begin expanding mobile mammography services to 14 satellite clinic locations within Hillsborough County. Emphasis will be placed on ZIP codes that have been identified as having a high amount of late-stage breast cancers.

# **Sustaining Success**

Both Suncoast and Tampa Family Health Centers have been dedicated partners of the BCCEDP-Hillsborough. The strategic locations within the Tampa Bay area along with both small and large media campaigns by BCCEDP-Hillsborough targeted women who reside in specific ZIP codes with late-stage breast cancers for greater awareness and screening opportunities.

# **Duval County Region Success Story: Early Detection is Key Empowering Women Marketing Campaign**

#### **Summary**

A successful campaign was implemented reaching out and empowering low-income, uninsured women in the Greater Jacksonville area by partnering with four ministers' wives and female ministers. These women used mass media to deliver the message that "Early Detection Saves Lives." From this campaign, a total of 181 women called BCCEDP-Duval and most were eligible for the program.

# Challenge

The health and wellness of Duval County residents is vital to the Florida Department of Health in Duval County. The primary mode of communication about the breast and cervical cancer screening program at FDOH-Duval was by peer-to-peer communication. Breast and cervical cancer screening staff at FDOH-Duval realized that this form of communication about the program was not the best marketing strategy to engage the community and to increase breast and cervical cancer screenings. Additionally, staff realized that the program was created in 1994, and many community members were unaware the program existed and that services and resources were available to community members.

#### Solution

Early detection is associated with long survival and improved quality of life. The BCCEDP-Duval strives to reduce health disparities in access to health services. Limited access to health care impacts a person's ability to reach their full potential, negatively affecting their quality of life. In an effort to educate and inform the public on program services available to low-income, uninsured women in the Greater Jacksonville Area, the BCCEDP-Duval developed the campaign "First Ladies of Health." This campaign engages and encourages women through the voices of faith-based female leadership. Ministers' wives and female ministers of several local churches are very passionate about serving the community, particularly with regards to health concerns of the underserved population. Thus, the "First Ladies of Health" campaign was born. The First Ladies were delivering the message that "Early Detection Saves Lives" on the local television channels, radio stations, and newspapers.

#### **Results**

The marketing campaign is currently ongoing. Initial results from the campaign found that within six business days of the onset of the campaign, 23 women who received the ad in the mail called and qualified for program services. The marketing campaign helps women become aware of the FBCCEDP thereby enabling and empowering women to take the first step toward a better prognosis in circumstances that may not have afforded them the opportunity otherwise.

#### **Sustaining Success**

As the "First Ladies of Health" campaign grew, the BCCEDP-Duval reached out to the Hispanic ladies who were screened by the program and asked for their help to deliver our message to Spanish-speaking residents of our region. Being breast cancer survivors themselves, they understand the importance of early detection. The BCCEDP helped these women during a very difficult time in their lives and they wanted to help others. Their pictures with the message in a targeted direct mailing campaign were used. Magazines were delivered to specific ZIP codes that were chosen based on late-stage breast cancer maps (the urban area with the most health disparities and inequities), and in very specific ZIP codes where the majority of the Hispanic population reside.

#### **Conclusions**

Breast cancer incidence has increased by 8.4 percent over a ten-year period and mortality rates have decreased in Florida during this period. The reduction in mortality rates is partly due to an ongoing progress in both screening and improved treatment. Despite the decline in breast mortality, breast cancer has remained the most commonly diagnosed cancer and the second leading cause of cancer deaths among women.

During FY 16-17, 16 FBCCEDP regions received state and federal funding to increase breast and cervical cancer screenings for program-eligible women. Additionally, funding was provided to increase awareness of the importance of breast and cervical cancer screenings statewide.

The FBCCEDP is a vital resource for women who remain uninsured. In FY16-17, the \$2.2 million legislative appropriation of general revenue and the \$5.2 million from the CDC grant allocation were spent on mammograms, Pap tests, diagnostics, biopsies, administrative fees, and evidence-based interventions to increase screening rates and to reduce the burden of cancer in Florida. Increased access to screening, as a result of raised awareness, helps diagnose cancer at the earliest, most treatable stage. Program screening numbers have varied due to changes in the recommended screening intervals, the transition of primary care health services from county health departments to external providers, and a change in provider base.

FY 17-18 is underway, maximizing the funding for FBCCEDP services as well as increasing population-based and health systems change strategies. In an effort to increase screening rates across the state using a population-based approach, the FBCCEDP will continue to partner with the American Cancer Society, Federally Qualified Health Centers, cancer coalitions, community-based organizations, and other groups to create a sustainable collaboration to explore ways that women in disparate populations can be reached and served. One of the primary objectives of the partnerships is to increase and improve communication strategies that will encourage women to receive regular screenings and health exams. The FBCCEDP short- and long-term goals are focused on increasing community awareness and creating synergy for active participation among partners to reduce cancer mortality rates. This includes those partners or providers who are in rural areas of Florida where there are high rates of late-stage breast cancer. Looking forward, the FBCCEDP will move toward expanded population-based and health systems change strategies through evidence-based interventions, which will increase opportunities to serve more women and make a larger impact in Florida.

# **Appendix A. Data Sources and Methods**

#### **Data Sources**

#### Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) is a telephone-based (land lines and mobile phones) survey that uses a random-digit dial sampling methodology to collect state data from respondents 18 years of age and older concerning their health and health behaviors. The BRFSS has been conducted annually in Florida since 1986 and gathers detailed information about chronic health conditions, health-related risk behaviors, and the prevalence of preventive health care practices among Florida adults. The BRFSS data included in this report have been weighted to be representative of the state population. Weighting is a procedure that adjusts for the chance of being selected to participate in the survey and for discrepancies between those who complete the survey and the overall population of Florida.

# Florida Cancer Data System

The Florida Cancer Data System (FCDS) provided data for this report on cancer incidence. Hospitals, pathology laboratories, ambulatory surgical centers, radiation therapy facilities, and physicians' offices report new cancer cases to the FCDS per section 385.202, Florida Statutes (F.S.). Insurance claims data is also used to capture new cases. Incidence rates are based on cancers diagnosed in Florida residents during the respective reporting year. The data do not include cancers diagnosed before a person became a Florida resident. The majority of cancer cases in Florida residents diagnosed in other states are captured in the FCDS database through sharing of cancer incidence data among states, according to the North American Association of Central Cancer Registries (NAACCR) Procedure Guidelines (page two, Series I, Data Exchange). Cases are tallied according to the year of initial diagnosis. People with multiple primary cancers contribute multiple records to the database.

#### **Vital Statistics**

The mortality data in this report are derived from the Florida Department of Health, Bureau of Vital Statistics and includes cases with breast or cervical cancer listed as the underlying cause of death on death certificates. Mortality counts and rates were pulled from FloridaHealthCHARTS (www.FLHealthCHARTS.com).

# Cancer Screening and Tracking System (CaST)

The CDC's cancer data entry software, Cancer Screening and Tracking System (CaST), is used to collect data on the women eligible for FBCCEDP. It contains demographic, screening and diagnostic treatment information, as well as where and when cancer treatment was performed. Data were extracted for the race and ethnicity charts.

### **Methods**

Race and ethnicity are presented as a combined measure in this report. In most cases, race and ethnicity were captured as two separate measures. Race and ethnicity measures were combined to create the following groups when possible: non-Hispanic White, non-Hispanic Black, and Hispanic. Any individual coded as Hispanic was considered Hispanic, regardless of race.

# **Appendix B. FBCCEDP Patient Report Form**

# PATIENT REPORTING FORM (PRF) FLORIDA BREAST AND CERVICAL CANCER EARLY DETECTION PROGRAM (FBCCEDP)

SEC	TION I: GENERAL INFORM	<u>ATION</u>	r		
Α.	IDENTIFICATION INFORMATION		Under-insured:  Medically Needy/Share of Cost		
	Last Name:		The superior control and the control of the control		
	First Name:Mid	ddle Initial	Catastrophic Only		
	Telephone #:		LI		
	Alternate Telephone #:				
	Date of Birth:		Primary Language:		
	Mailing Address:		Other Language:		
	Street Address:				
	City:	Zip:	County:		
	SSN: Height (II	n.)Weight(lbs.)	Hx of Hypertension? 1. ☐Yes 2.☐No		
	Tobacco Use: 1.☐ Daily 2.☐ Son If 1 or 2, was client referred to Quitli	ne days 3.☐ Not a ine? 1. ☐Yes 2. ☐	t all 4.☐ Declined to answer No, not referred 3. ☐Declined referral		
В.	ETHNICITY AND RACE (Please of Client Ethnicity: Is this client Hispan		ity and Race) 1.		
	Client Race (Check all that apply):		dian or Alaska Native 2. Asian 3. Black		
	Undocumented? 1. Tyes 2. No	4. ☐ Native Hawa	iian or Other Pacific Islander 5. ☐ Unknown 6. ☐ White		
C.	PROGRAM INFORMATION				
			ort interval follow-up (or repeat) d insurance, now back on program		
	Care Coordinator at CHD (Lead county	0.0			
	Date Enrolled:				
	16. ∐ In-read	/Friend 2	Brochure 3. CHD 4. Community nternet 7. Med. Ofc 8. Newspaper Postcard 11. Outreach 12. Television Social Media 15. Educational Session Bus wraps/signs 18. Billboards		
SEC <sup>-</sup>	TION II: CASE INFORMATION	<u>J</u>			
Α.	BREAST CANCER HISTORY Has the client ever had breast cancer?  1. Yes 2. No 3. Unknown Before entering our program, has the cl 1. Yes If yes, prior mammogram date 2. No 3. Unknown				
В.	CERVICAL CANCER HISTORY  Has the client ever had invasive cervica  1. ☐ Yes If yes, explain in Section VIII: 6  Before entering our program, has the cl  1. ☐ Yes If yes, prior Pap smear date _	Comments 2. No lent ever had a Pap s	smear?		
July, 20	16 Revision	1			

Name	e of Client_	DOB_	SS#_		
					Lead County
SECT	ION III: CLINICAL BREAST	EXAM	Provider #:		
			Screening Performed D CBE Paid by FBCCED	P:Yes No_	
A.	Did the Client Report Breast S	ymptoms?	1. Yes 2.	No 3. Unkno	own
B.	CBE Result (✓ only one box)  1. Normal  2. Benign/Stable discrete palpab  3. Abnormality suspicious for cal		cystic changes/Diffused lumpir	ess/Nodularity	
			Nex	t CBE Date	
	<b>NOTE</b> : A diagnostic work-up can be and a completed page 3, Section V.	ordered with a	CBE result of "1" or "2." A "3" I	esult <b>requires</b> diagn	ostic work-up
C.	Additional Breast Procedures	for CBE			
2	Additional procedures needed completed.)     Additional procedures not needed.			lditional Breast Pro	<u>cedures</u> must be
SEC	CTION IV: MAMMOGRAM	]			
(Breas	If CBE was not done, Question III-A at Symptoms?) must be answered for ammogram.		er #: iing Performed Date: iogram paid by FBCCEI	OP:Yes No	
A.	Indication for Mammogram (✓  1. □ Routine screening mammog  2. □ Mammogram performed to e  3. □ Mammogram not done. Patio  4. □ Cervical record only, breast	ram valuate symp ent only recei	ved CBE, or proceeded direc		
В.	Mammogram Result (✔only one bo		□Digital? □Con	ventional?	
υ.	Manimogram Result (* only one b	<i>"</i>			
2.	Negative (BI-RADS 1) Benign finding (BI-RADS 2) Probably benign-STFU (BI-RADS 3 Unsatisfactory	) 5. 🗖 6. 🗖	Suspicious abnormality-biop Highly suggestive of maligna should be taken (BI-RADS Assessment is incomplete-rassessment is incomplete-fi	ańcy-Appropriate ad 5) leed additional imag	ging (BI-RADS 0)
C.	Mammogram Result Additiona	al Breast Pr	ocedures for Mammogra	<u>m</u>	
	1. Additional procedures neede <a href="Procedures">Procedures</a> must be completed.				Additional Breast
	2. Additional procedures not ne	eded or planr	ned (If mammogram result =1	,2,3,7)	
			Next Mamr	nogram Date	

Name of Client DOB SS#
Lead County
SECTION V: ADDITIONAL BREAST PROCEDURES
A. Breast Imaging Procedures Performed Date Paid? Provider#
1. Additional Mammographic Views 2. Ultrasound 3. Film Comparison to Evaluate Assessment Incomplete
If 4: Pre-Authorization Date Central Office Nurse
4. Magnetic Resonance Imaging
Check if additional page 3, Section V-A completed to document more than one imaging procedure:
Final Imaging Outcome  1. ☐ Negative (BI-RADS 1) Final Imaging Date:  2. ☐ Benign finding (BI-RADS 2)  3. ☐ Probably benign — Short interval follow-up indicated (BI-RADS 3)  4. ☐ Suspicious abnormality - Biopsy should be considered (BI-RADS 4)  5. ☐ Highly suspicious of malignancy - Appropriate action should be taken (BI-RADS 5)  6. ☐ Unsatisfactory
B. Breast Diagnostic Procedures Performed Date Paid? Provider #
1. Repeat Breast Exam/Surgical Consultation 2. Repeat Breast Exam/Surgical Consultation 3. Biopsy/Lumpectomy 4. Biopsy/Lumpectomy (Repeat) (Comment Required) 5. Fine Needle/Cyst Aspiration For 1 or 2, please circle the appropriate procedure.
C. Breast Final Diagnosis Information
Status of Final Diagnosis Return Date:
4. Work-up refused Complete Section VIII: Final Diagnosis Status Expansion and 5. Irreconcilable Complete Section IX: Comments if Status of Diagnosis = 3 or 4.
Final Diagnosis Date:
Final Diagnosis         1. □ Breast cancer not diagnosed       Diagnosis Facility: □         2. □ Lobular carcinoma in situ (LCIS) (stage 0) (Treatment optional)       Left □ Right □         3. □ Atypical Ductal Hyperplasia (ADH) (Treatment optional)       Left □ Right □         4. □ Invasive breast cancer       Left □ Right □         5. □ Ductal carcinoma in situ (DCIS) (stage 0) (Treatment required)       Left □ Right □
D. Breast Cancer Treatment Information
Status of Treatment  1.  Treatment Start Date: 1. Treatment started  Treatment Facility:  2. Treatment pending  3. Lost to follow-up (includes women who died before work-up was completed)
4. ☐ Treatment refused Complete Section VIII: Treatment Status Expansion 5. ☐ Treatment not needed Complete Section IX: Comments if Status of Treatment = 3, 4, or 5.
Central Office Use Only:         Referred to Medicaid for treatment coverage? ☐ Yes ☐ No       Referral Date         Patient enrolled? ☐ Yes ☐ No       Comment:

July, 2016 Revision

Name	e of Client	DOB	SS#	
				<b>Lead County</b>
SEC	CTION VI: PAP/PELVIC		Provider #:Screening Performed Date:Yes No	
A <u>.</u>	Specimen Adequacy:  1. Satisfactory 2. Unsatis	efactory		
В.	Specimen Type:  1. Conventional Smear 2. Li		sed	
C.	Indication for Pap Test (✓ only on 1. ☐ Routine Pap test 2. ☐ Patient under surveillance for 3. ☐ Pap test not done. Patient pro 4. ☐ Breast record only, cervical set	previou oceedec	I directly for diagnostic work-up or HPV test	
D.	Pap Smear Result (V only one box)  1. Negative for intraepithelial les 2. Atypical squamous cells of ur 3. Low grade SIL (including HPN	ndeterm / chang	ined significance (ASC-US) es)	
	4. Atypical squamous cells cann 5. High grade SIL (with features 6. Squamous cell carcinoma 7. Atypical glandular cells (Includent)	suspici	ide HSIL (ASC-H) ous for invasion) rpical, Endocervical adenocarcinoma in situ and	adenocarcinoma)
	Comments:			
E.	Diagnostic Work-up Planned fo	or Cerv	vical Dysplasia or Cancer	
	1. Diagnostic work-up planned of	n basis , 2, 3 ar	of abnormal Pap test or pelvic exam and clinician <i>chooses</i> to do diagnostics) <b>then</b> <u>Sec</u>	tion VII: Cervical
<u></u>	2. Diagnostic work-up not planne	ed (If Pa	p result = 1, 2, 3 and clinician chooses <i>not</i> to do	diagnostics)
			Next Pap Date	
F.	HPV Test Result  1. □Positive	G.	HPV Test Date	_
	<ul><li>2.  ☐Negative</li><li>3.  ☐Test not done</li></ul>	H.	HPV Test Paid by FBCCEDP  1.  ☐Yes 2.  ☐No	
	A comment is <b>required</b> if the Pap test p is planned.	result is	ASC-US or LSIL and the HPV test result is positiv	e and no diagnostic
Comm	ents:			
July, 20	016 Revision		4	

Name of Client	DOB	SS#	<u> </u>		
			_		<b>Lead County</b>
SECTION VII: CERVICAL DIAG	NOSTIC PRO	OCEDURE	S		
A. Cervical Diagnostic Procedure	Performed	Date	Paid?	Na	Provider#
Colposcopy without Biopsy     Colposcopy with Biopsy and/o     Other Cervical Procedures Perplease specify     ECC Alone	formed				
If 5 or 6: Pre-Authorization Date  5.		Il Office Nurse	Yes	No	
B. <u>Cervical Final Diagnosis In</u>	<u>nformation</u>				
Status of Final Diagnosis  1. Work-up complete  2. Work-up pending					<u> </u>
3. ☐ Lost to follow-up (includes wome 4. ☐ Work-up refused 5. ☐ Irreconcilable	Complete Sect	ion VIII: Final	Diagno	sis Sta	atus Expansion and of Diagnosis = <b>3 or 4</b> .
Final Diagnosis  1. ☐ Normal/Benign reaction/Inflamm  2. ☐ HPV/Condylomata/Atypia  3. ☐ CIN 1 /Mild dysplasia (biopsy dia  4. ☐ CIN 2 /Moderate dysplasia (biops  5. ☐ CIN 3 /Severe dysplasia/Carcino or Adenocarcinoma In Situ (AIS)  6. ☐ Invasive cervical carcinoma (biop  7. ☐ Other cancer diagnosis (only if p  8. ☐ Low grade SIL (biopsy diagnosis  9. ☐ High grade SIL (biopsy diagnosis	ignosis) sy diagnosis) ma in situ (stage of the cervix (bio osy diagnosis) atient has no cen )	psy diagnosis	<b>Diag</b> gnosis)	nosis	nosis Date: Facility:
C. <u>Cervical Cancer Treatment Info</u>	ormation_				
Status of Treatment  1. Treatment started  2. Treatment pending		nent Start Dat nent Facility:			
3. ☐ Lost to follow-up (includes wome 4. ☐ Treatment refused 5. ☐ Treatment not needed	Complete Sect	ion VIII: Treat	tment St	atus E	Expansion of Treatment = 3, 4, or 5.
Central Office Use Only: Referred to Medicaid for treatment cover	erage?	☐ No Refe	rral Date		<u>.</u>
Patient enrolled? ☐ Yes ☐ No	Comment:				

July, 2016 Revision

Name of Client	DOB	SS#					
			<b>Lead County</b>				
SECTION VIII: FINAL DIAGNOSIS & TREATMENT STATUS EXPANSION							
☐ Breast ☐ Cerv	ical						
LOST TO FOLLOW-UP							
Lost to follow-up – not otherwise     Lost to follow-up - deceased     Lost to follow-up - moved	specified						
REFUSED							
<ol> <li>Refused – not otherwise specified</li> <li>Refused – ineligible due to incom</li> <li>Refused – transportation problem</li> <li>Refused – financial problems (tree</li> <li>Refused – other problems (treatness)</li> </ol>	e or insurance ns (treatment status atment status only)						
Not indicated/Not needed							
1. Not needed – treatment not recor	nmended by provid	er (treatment status only)					
SECTION IX: COMMENTS	Dat Dat	gional Coordinator: e of Comment: e of Abnormal Result: normal Result:					
A. Subject of the Comments							
Diagnostic: 1. ☐ DX work-up > 60 days 2. ☐ DX work-up refused 3. ☐ DX work-up lost to follow-up	2.☐ Treatr	: nent > 60 days from DX nent refused nent lost to follow-up	Other: 1. ☐ Case transferred 2. ☐ Client deceased 3. ☐ Other reason for comment page				
Notes:							
		_					
July, 2016 Revision	6						

# References

<sup>1</sup>FCDS. Florida Annual Cancer Report 2014 Incidence and Mortality. Tallahassee: Florida Department of Health, 2014.

<sup>2</sup>Florida Department of Health Bureau of Vital Statistics. *Florida Death County Query System.* 2018.

<sup>3</sup>U.S. Census. Surveys and Programs. *Small Area Health Insurance Estimates Program.* [Online] 04 19, 2018. https://www.census.gov/programs-surveys/sahie.html.

<sup>4</sup>ACS. Cancer Screenings. *Cancer Screenings*. [Online] June 15, 2017. https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2017.html.

<sup>5</sup>USPSTF. Breast Cancer Screening Recommendations. *Breast Cancer Screening*. [Online] January 31, 2012.

https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/breast-cancer-screening1.

<sup>6</sup>Healthy People 2020. 2020 Topics and Objectives: Cancer. [Online] [Cited: 06 29, 2018.] https://www.healthypeople.gov/2020/topics-objectives/topic/cancer/objectives.

<sup>7</sup>Tejeda, S, et al. *Patient Barriers to Follow-Up Care for Breast and Cervical Cancer Abnormalities*. s.l.: Journal of Womens Health, 2013. pp. 507-517. Vol. 22.

<sup>8</sup>USPSTF. Cervical Cancer Screening Recommendations. *Cervical Cancer*. [Online] March 31, 2012.

https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/cervical-cancer-screening.

<sup>9</sup>CDC. Use of a 2-Dose Schedule for Human Papillomavirus Vaccination - Updated Recommendations of the Advisory Committee on Immunization Practices. s.l.: Morbidity and Mortality Report (MMWR), 2016.