

Georgia Breast and Cervical Cancer Program

Evaluation and Performance Measurement Plan

Project Period: 6/30/2019 - 6/29/2022

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1. Introduction

1.1 Background: Breast cancer is the leading cause of cancer among women in Georgia, with almost 8,000 women expected to be diagnosed in 2019. It is also the second leading cause of cancer deaths among Georgia women, with approximately 1,350 expected deaths in 2019 (Cancer Facts & Figures, 2019; ACS, 2019). Black women in Georgia have traditionally had the paradox of having lower breast cancer incidence rates but higher breast cancer mortality rates than White women. However, in recent years, Black women's breast cancer incidence rate has also progressively increased compared to that among White women (Georgia Comprehensive Cancer Registry (GCCR), 2012-2016). Despite widespread use of Pap testing in recent years, 420 women are still being diagnosed, and 135 women are dying from cervical cancer in Georgia each year (GCCR, 2012-2016). Racial disparities in cervical cancer are still apparent, with Black women in Georgia having a significantly higher cervical cancer mortality rate than White women. Early detection of breast and cervical cancer are the keys to survival; however, mammography for breast cancer and Pap testing for cervical cancer are only useful tools when these services are available and accessible among women. Barriers to breast and cervical cancer care and prevention include financial burdens, issues related to health insurance, lack of transportation, cultural/linguistic issues, as well as lack of knowledge and awareness about cancer prevention methods and the benefits of screening. As of 2017, there were approximately 640,000 women under age 65 in Georgia without health insurance, and almost 400,000 of these women had incomes below 200% of the federal poverty level (Small Area Health Insurance Estimates, U.S. Census, 2019). As not all women have access to cancer screening services, health disparities persist, and cancer morbidity and mortality continue to affect the wellbeing of Georgia's population.

1.2 Plan overview: This comprehensive evaluation plan will follow the procedures and standards recommended by the CDC's Framework for Program Evaluation in Public Health. Ms. Janet Shin, an evaluator within the Office of Health Science, Chronic Disease Prevention Section, Georgia Department of Public Health (DPH) staff, will serve as the lead evaluator for the Georgia Breast and Cervical Cancer Program (GBCCP). The evaluator will use a mixed methods approach that involves quantitative and qualitative methodologies. Process and outcome evaluations will be performed. Key evaluation questions are summarized as follows: *What are the facilitators and barriers to implementing program strategies and activities as planned? To what extent does the program implement screening, diagnostic services, patient navigation, and evidence-based interventions? Do breast and cervical cancer screening rates change after implementing evidence-based interventions and supportive activities?*

1.3 Evaluation purpose: The purposes of the program evaluation and performance measurement are to monitor the program activities; to determine the program effectiveness; to identify areas to improve program implementation; and to promote accountability among program stakeholders.

2. Stakeholders of evaluation results

Primary stakeholders for the evaluation include the GBCCP staff, DPH Health Districts and local health department staff, other participating providers (e.g., federally qualified health centers, or FQHCs), and the Centers for Disease Control and Prevention (CDC) (**Table 1**). The GBCCP evaluator will collaborate with these stakeholders throughout the project duration to ensure that the program takes a participatory approach in planning and implementing the evaluation activities.

Stakeholder Name	Role of Stakeholder	Priority Areas for Evaluation
Centers for Disease Control and Prevention (CDC)	Monitor program deliverables, requirements and performance measures	Provide technical assistance and support for evaluation plan implementation; assess program monitoring and evaluation performance objectives; summarize, document, and disseminate evaluation results
Georgia Department of Public Health (DPH) Georgia Breast and Cervical Cancer Program (GBCCP)	Ensure program success through monitoring of program goals, objectives, funding, reports and data	Guide evaluation design and implementation; use evaluation results to inform program planning and quality improvement
DPH Health Districts and county health departments	Perform screening, follow-up diagnostic evaluation, case management and evidence- based interventions (EBIs)	Collect and provide data; use evaluation results to inform program planning and quality improvement
DPH, Chronic Disease Prevention Section, Office of Health Science	Collect, analyze, report and evaluate program data	Develop and implement evaluation plan; provide data-driven recommendations; summarize, document, and disseminate evaluation results
DPH, Related Chronic Disease Programs	Collaborate with the GBCCP to streamline chronic disease prevention efforts	Use evaluation results to implement and enhance performance of respective program
DPH Patient Navigation Program (PNP)	Implement navigation, community outreach, EBIs and supportive activities	Collect the PNP data; use evaluation results to inform PNP planning and quality improvement
Participating providers e.g., FQHCs	Perform screening, follow-up diagnostic evaluation, case management and EBIs	Collect and provide data; use evaluation results to inform program planning and quality improvement
Women's Health Medicaid Program	Provide treatment fees for the GBCCP eligible women diagnosed with cancer	Collect data
Georgia Cancer Control Consortium	Implement statewide cancer plan	Disseminate evaluation results
Women receiving the GBCCP services	Receive the GBCCP services	Provide data

Table 1. Stakeholder assessment and engagement plan

3. Program description

3.1 Program purpose and priority populations: The purpose of the GBCCP is to offer timely and appropriate breast and cervical cancer screening and diagnostic services to uninsured or under-insured women in Georgia at or below 200% of the federal poverty level. The program has special focus on priority population groups, including women of all races and ethnicities without other sources for cancer screening services; women in priority age groups (i.e., age 40-64 for breast cancer screening and 21-64 for cervical cancer screening); women who have been rarely or never screened; and, those who are likely to access healthcare services through local health departments, FQHCs, or other participating health systems. By concentrating efforts to reach our priority populations, the GBCCP aims to reduce health disparities and reduce cancer morbidity and mortality rates in Georgia.

3.2 Program activities: Focus of this program is to provide high quality breast and cervical cancer screening and diagnostic services to eligible women. The GBCCP implements activities related to three primary strategies (environmental approaches, community-clinical linkages and health systems changes) and four cross-cutting strategies (program collaboration, external partnerships, cancer data/surveillance and program monitoring and evaluation). The GBCCP works closely with Albany Area Primary Health Care (AAPHC) to implement evidence-based interventions (EBIs) and health systems change activities to increase clinic-level breast and cervical screening rates at East Albany Medical Center (EAMC). The program implements community-clinical linkage strategies that link women to clinical services and environmental approaches that promote wellness policy at worksites. Through collaboration with the Georgia Center for Oncology Research and Education (GA CORE), women at high risk for the hereditary breast and ovarian cancer genes are screened in the DPH health districts. The Patient Navigators (PNs) provide population-based community education on cancer and facilitate access to receive screening and diagnostic services offered through the GBCCP. Navigators implement EBIs, including client reminders, group education, one-on-one education, reduction of structural barriers, and small media. Women with positive cancer diagnoses are enrolled into the Women's Health Medicaid Program and referred to treatment services and other programs for additional support. Assessing patients for tobacco use and referring those who smoke to the Georgia Tobacco Quit Line is an ongoing activity of the program. The GBCCP provides breast and cervical cancer education and training to statewide public health providers.

3.3 Program impact: In fiscal year (FY) 2018, thirty-six percent (36%) of Pap tests were provided to women rarely or never screened for cervical cancer. Ninety-six percent (96%) of clients with abnormal breast cancer screening results completed follow-up services, and ninety-eight percent (98%) of women diagnosed with breast cancer initiated treatment. Eighty-eight percent (88%) of women with abnormal Pap tests completed follow-up services, and seventy-nine percent (79%) of women with diagnosis of HSIL, CIN2, CIN3, CIS, or invasive cervical carcinoma started treatment.

3.4 Logic model: The GBCCP logic model shows what the GBCCP plans to accomplish, and how program inputs, strategies and activities relate to anticipated outputs and outcomes (**Figure 1**).



Strategy 7: Program Monitoring and Evaluation

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4. Evaluation focus

Both process and outcome evaluations will be conducted. Key process evaluation questions include:

- 1. What are the facilitators and barriers to implementing program strategies and activities as planned?
- 2. What are grantees' training and technical assistance needs?
- 3. To what extent do providers perform cancer screening and diagnostic services?
 - a. How many women receive cancer screening and diagnostic services?
- 4. To what extent do navigators and/or program staff perform patient navigation, EBIs, and supportive activities to increase cancer screening?
 - a. Which EBIs and supportive activities does each provider site (i.e., Public Health District, partner health system) implement?
 - b. How many women are served through patient navigation?
 - c. How many women receive client reminders and recalls?
 - d. Which structural barriers to cancer care are identified and reduced? For each type of barrier, how many cases are identified and reduced?
 - e. How many providers are given a provider assessment and feedback by their health system?

Key outcome evaluation questions are as follows:

- 5. Is the GBCCP meeting target values of clinical quality indicators?
 - a. Does the GBCCP reach the priority population for cancer screening?
 - b. What percentage of clients with abnormal screening results complete diagnostic follow-up?
 - c. What percentage of clients with abnormal screening results receive timely diagnostic follow-up?
 - d. What percentage of clients diagnosed with cancer initiate cancer treatment?
 - e. What percentage of clients diagnosed with cancer initiate timely cancer treatment?
- 6. What percentage of patients receiving navigation for diagnostic follow-up complete diagnostic testing?
- 7. Do clinic-level screening rates change after implementing EBIs and supportive activities?

These evaluation questions were selected and prioritized based on programmatic needs, selected evaluation purpose, stakeholder interests and feasibility. The GBCCP evaluator will collaborate with program stakeholders to assess whether priorities and feasibility issues hold for these focused evaluation activities and refine these evaluation questions during the project duration.

5. Data collection

A mixed-methods approach, including quantitative and qualitative methodologies, will be used. Data collection plan is summarized in **Tables** 2 and 3. More detailed data collection plan and data management plan are included in Appendix.

Evaluation Question	Indicator	Performance Measure	Method	Data Source	Responsibility
What are the facilitators and barriers to implementing program strategies and activities as planned?	Facilitators and barrier	rs in program implementation	Qualitative	grantee reports, site visit forms	Program Director (PD), Data Management/Quality Assurance (DMQA) team, Providers*
What are grantees' training and technical assistance needs?	Training and technical	assistance needs	Qualitative	Meeting notes, site visit forms, survey	PD, DMQA team
To what extent do providers perform cancer screening and diagnostic services?	Implementation of screening and diagnostic services	No. and % of breast and cervical screening and diagnostic services provided	Quantitative	Patient-level clinical data (Minimum Data Elements, or MDEs)	-
To what extent do navigators and/or program staff perform patient navigation, EBIs, and supportive activities?	Implementation of patient navigation, EBIs and supportive activities	No. and types of EBIs implemented; no. and types of barriers identified and reduced; no. of women served through patient navigation, no. of women receiving client reminders/recalls; no. of provider assessment and feedback performed; successes and challenges in implementing priority EBIs within health system clinics	Quantitative Qualitative	Patient Navigation	PN team, Providers*, Program evaluator

 Table 2. Summary of data collection plan for process evaluation

*Providers include the DPH health districts, local health departments and other providers funded by the GBCCP (e.g., FQHCs, other health systems).

Evaluation Question	Indicator	Performance Measure	Method	Data Source	Responsibility
Is the GBCCP meeting target values of clinical quality indicators?	Appropriate B & C cancer screening among priority populations; timely and appropriate diagnostic follow- up and cancer treatment referral among priority populations	% of initial Pap tests provided to women rarely or never screened for cervical cancer (Goal: $\geq 20\%$); % of screening mammograms provided to women ≥ 50 years (Goal: $\geq 75\%$); % of abnormal breast cancer screening results with complete follow-up (Goal: $\geq 90\%$); % of abnormal cervical cancer screening results with complete follow-up (Goal: $\geq 90\%$); % of abnormal breast screening results with time from screening test result to final diagnosis >60 days (Goal: $\leq 25\%$); % of abnormal cervical screening results with time from screening to final diagnosis >90 days (Goal: $\leq 25\%$); % of final diagnosis of breast cancer where treatment has been started (Goal: $\geq 90\%$); % of final diagnosis of HSIL, CIN2, CIN3/CIS, or invasive cervical cancer where treatment has been started (Goal: $\geq 90\%$); % of women diagnosed with breast cancer with time from date of diagnosis to treatment started >60 days (Goal: $\leq 20\%$); % of women diagnosed with premalignant high-grade cervical lesions with time from date of diagnosis to treatment started >90 days (Goal: $\leq 20\%$); % of women diagnosed with invasive cervical cancer with time from date of diagnosis to treatment started >60 days (Goal: $\leq 20\%$); % of	Quantitative		Providers*, DMQA team
What percentage of patients receiving navigation for diagnostic follow-up complete diagnostic testing?	Appropriate diagnostic follow- up among priority populations	% of patients receiving navigation for diagnostic follow-up complete diagnostic testing	Quantitative	PN data	PN team
Do clinic-level screening rates change after implementing EBIs and supportive activities?	Appropriate B & C cancer screening	Clinic-level breast cancer screening rate, clinic-level cervical cancer screening rate	Quantitative	level data	Health system staff, Program evaluator

*Providers include the DPH health districts, local health departments and other providers funded by the GBCCP (e.g., FQHCs, other health systems).

6. Analysis and interpretation

6.1 Data analysis: The GBCCP evaluator will compile, clean, code, and analyze data from multiple data sources as described in the 5. Data collection section. Both quantitative and qualitative data analysis will be performed.

MDE data will be exported from Microsoft Access into SAS (Version 9.4). Survey data will be exported into SAS to conduct the descriptive data analysis, including frequencies and percentages, and chi-square tests. Key outcome variables will be stratified by demographics, such as age, race/ethnicity and region. Pre- and post-test survey data will be analyzed by performing descriptive data analysis, t-tests and McNemar's tests. Rates related to breast and cervical cancer screening, incidence and mortality will be calculated by following the CDC standards.

Qualitative data, including responses to open-ended questions in survey data and interview data, will be analyzed by performing thematic analysis. The evaluator will create a codebook, identify codes based on the qualitative responses, and assess common themes.

6.2 Data interpretation: Upon completion of preliminary data analysis, the GBCCP evaluator will present and discuss the initial evaluation findings with the GBCCP staff to interpret the results and apply context to analysis of evidence gathered. Involving relevant stakeholders in data interpretation process will facilitate the program staff to draw appropriate, meaningful and databased conclusions and ensure credibility and acceptability of evaluation findings. Evaluation findings will be interpreted by considering the programmatic goals, evaluation goals, social and political context of the program and needs of program stakeholders.

6.3 Contribution to collaborating with health systems and communities: Through triangulation of multiple data sources, the evaluator will summarize activities completed by the program staff, and highlight the program progress, successes, challenges, outcomes, and lessons learned. Evaluation findings on facilitators and challenges of implementing strategies and activities related to health systems changes (i.e., screening and patient navigation) and community-clinical linkages in Georgia will enhance our understanding of the advantages and challenges of working collaboratively with health systems and communities to promote breast and cervical cancer screening.

7. Dissemination and use of evaluation findings

7.1 Use of findings: The GBCCP evaluator will collaborate with the GBCCP staff, DPH Chronic Disease Prevention Section leadership team, and other stakeholders, including Health Districts and local health departments, to ensure the use of evaluation findings for continuous quality improvement. The evaluator will work collaboratively with the program staff to identify targeted recommendations and action steps and make data-based decisions, so that responsible staff can implement programmatic changes to enhance program quality, effectiveness and efficiency. The CDC Project Consultant and Evaluation Technical Advisor will have access to evaluation findings and participate in consensus building exercises and planning discussion if major programmatic changes are recommended.

7.2 Dissemination of findings: Evaluation findings will be disseminated to program stakeholders through various channels, such as staff meetings, statewide and national conferences, emails, the DPH website, conference calls, and webinars. Evaluation reports that include evaluation results, success stories about program strategies, challenges, and lessons learned will be disseminated to program staff and stakeholders, including the CDC. Program progresses and challenges will be communicated with the CDC Project Consultant during quarterly technical assistance calls. The GBCCP team will present the evaluation findings to other state NBCCEDPs and local, state, and national level stakeholders through webinars and conference calls. This comprehensive program evaluation and performance measurement will contribute to developing an evidence base in cancer care and prevention. Throughout the project duration, the GBCCP evaluator will submit abstracts to academic and professional conferences about evaluation approach and findings. The audience, format and channel of dissemination, and responsible staff involved in dissemination are described in **Table 4.**

Audience	Format and Channel	Responsibility
GBCCP staff	Monthly in person updates on data	Program data
	collection and preliminary findings	manager, Program
		evaluator
	In person PowerPoint presentation of	Program evaluator
	evaluation findings	
	Email evaluation report upon completion	Program evaluator
CDC Program	Email evaluation report upon completion	Program evaluator,
Consultant and		Program director
evaluation staff		
DPH Health Districts and	In person PowerPoint presentation of	Program evaluator
other participating	evaluation findings	
providers	PowerPoint presentation of evaluation	Program evaluator

Table 4. Dissemination plan

	findings via webinar and teleconference	
	Email evaluation report upon completion	Program evaluator
DPH Chronic Disease Prevention Section leadership and relevant program staff	Email evaluation report upon completion	Program evaluator
Public health professionals	Oral and/or poster presentation at public health conference(s) upon acceptance of abstract	Program evaluator
Program stakeholders and general public	Upload evaluation report on DPH Website	Program evaluator

7.3 Documenting and monitoring audience feedback and action steps: Feedback from grantees, requests for technical assistance, and action steps will be documented by using site visit forms. By working closely with program staff, the GBCCP evaluator will compile and monitor audience feedback and action steps for continuous quality improvement.

8. Evaluation timeline

Timeline of evaluation activities that will be performed during this project period is outlined in Table 5.

Table 5. Timeline for evaluation activities	
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Time frame	Evaluation Activities
Monthly Tasks:	Collect MDE data, PN data and success stories; document meeting notes;
July 2019 – June 2022	perform monthly data review; each program staff report on their progress and barriers/facilitators to implementation at monthly team meeting
Quarterly Tasks:	Collect data and quarterly reports submitted from providers;
July 2019 – June 2022	analyze/synthesize data and quarterly reports
Annual Tasks:	Collect feedback/action steps data by monitoring site visit forms
July 2019 – June 2022	
1st Quarter:	Review workplans submitted from providers; develop evaluation report;
July – September	collect and submit annual clinic records to CDC
2 nd Quarter:	Finalize and disseminate evaluation report to CDC and other stakeholders;
October – December	Submit MDE data to CDC; collect and analyze annual update and training
	meeting evaluation survey data; disseminate meeting evaluation report to
	program staff and use findings to improve future meeting/training
3 rd Quarter:	Collect and submit annual clinic-level screening data to CDC;
January – March	develop/submit annual progress report/continuing application to CDC
4 th Quarter:	Submit MDE data to CDC
April – June	

Appendix

Table 6. Data collection plan in detail

Indicator/Performance Measure	Data Source	Assessment Frequency	Responsibility
Facilitators and barriers in program implementation	Meeting notes, grantee reports, site visit forms	Quarterly annually	Program Director (PD), Data Management/Quality Assurance (DMQA) team, Providers*
Training needs for staff/providers*; technical assistance needs for staff/providers*	Meeting notes, grantee reports, site visit forms	Quarterly annually	PD, DMQA team, Providers*
of breast/cervical screening completed among navigated women; type and number of reduced	Patient Navigation Program (PNP) data, CCL survey, MDE, CCL tracking data	Monthly annually	Patient Navigators (PNs), Providers*, Program Evaluator
Clinic-level breast/cervical cancer screening rates; health system (HS) and clinic characteristics; demographics; implementation of EBIs, patient navigation, and supportive community clinical linkages activities	Clinic data	Baseline annually	HS staff, Program Evaluator
Current HS environment; intervention needs; intervention selected; resources and barriers in program implementation	HS EBI implementation plan, HS assessment interview, HS data review	Baseline	HS staff, Program Evaluator
% of navigated women with improved knowledge/attitude/satisfaction about breast/cervical cancer screening	PNP satisfaction survey	TBD	TBD

Number of staff/providers recruited and retained	Performance evaluation	Annually	PD
% of initial Pap tests provided to women rarely or never screened for cervical cancer (Goal: $\geq 20\%$); % of screening mammograms provided to women ≥ 50 years (Goal: $\geq 75\%$); Number and % of breast and cervical screening and re-screening provided	Patient-level clinical data (Minimum Data Elements, or MDEs)	Monthly bi-annually	Providers*
% of abnormal breast screening results with complete follow-up (Goal: \geq 90%); % of abnormal cervical screening results with complete follow-up (Goal: \geq 90%)			
% of abnormal breast screening results with time from screening test result to final diagnosis >60 days (Goal: $\leq 25\%$); % of abnormal cervical screening results with time from screening to final diagnosis >90 days (Goal: $\leq 25\%$)			
% of final diagnosis of breast cancer where treatment has been started (Goal: \geq 90%); % of final diagnosis of HSIL, CIN2, CIN3/CIS, or invasive cervical cancer where treatment has been started (Goal: \geq 90%)			
% of women diagnosed with breast cancer with time from date of diagnosis to treatment started >60 days (Goal: $\leq 20\%$); % of women diagnosed with premalignant high-grade cervical lesions with time from date of diagnosis to treatment started >90 days (Goal: $\leq 20\%$); % of women diagnosed with invasive cervical cancer with time from date of diagnosis to treatment started >60 days (Goal: $\leq 20\%$)			
Number of breast lesions detected; number of false detections; % sensitivity; % specificity (i.e., Positive Predictive Value, or PPV); % of exam thoroughness (i.e., area coverage); % of training participants with improved confidence in performing Clinical Breast Exams (CBEs)	CBE simulator training data	Baseline, during & post-training	MammaCare Foundation staff
Successes and lessons learned from implementing community clinical linkage strategies	CCL survey	Baseline annually	Providers*, Program Evaluator
Stories about navigated patients who completed plan of cancer care	PNP success stories	TBD	PNs
	Patient-level clinical data (MDEs)	Monthly bi-annually	Program Data Manager

% of employees self-reporting receipt of breast/cervical cancer screening based on current guidelines; % of employees aware of workplace's written breast/cervical cancer screening policy; types of breast and/or cervical cancer screening policies at worksites	1 5 5	Baseline annually	Program Evaluator
Number of written breast/cervical cancer screening policy developed/enhanced, successes and challenges in developing/enhancing breast/cervical cancer screening policy at worksites	Grantee reports	Annually	Providers*, Program Evaluator
% of women self-reporting receipt of breast/cervical cancer screening based on current guidelines	Behavioral Risk Factor Surveillance System data	Annually	Program Epidemiologist
Breast and cervical cancer incidence and mortality among targeted populations; breast and cervical cancer incidence and mortality by race/ethnicity and region	Cancer registry, cancer death clearance data	Annually	Program Epidemiologist

*Providers include the DPH health districts and contractor providers funded by the GBCCP (e.g., FQHCs, other health systems).

Data sources, data standards and plans for storage, access, archival and preservation are summarized in **Table 7**. All released data will have accompanying data dictionary and appropriate documentation that describes the data collection method and potential limitations for usage of the data. For public use, de-identified datasets, data dictionary and relevant documentation will be saved in the DPH file server to provide access to the data.

Table 7. Data Management Plan

Data Sources	Standards	Storage	Access	Archival and Preservation Plan
Patient-level clinical data (MDEs)	MDE definition and data quality indicators	Stored in the DPH file server in compliance with HIPAA regulations.	The GBCCP database can be accessed by the	Electronic records: stored in the DPH file server
Patient Navigation Program (PNP) data, CCL tracking data, pre- and post-test survey for Women's Health Exam (WHE) refresher trainings, health system assessment interview	Data dictionary	Stored in the DPH file server in compliance with HIPAA regulations All survey and interview data will have participant names and contact information removed, with a unique identifier allowing linkage if the need arises while maintaining confidentiality.	GBCCP state staff only. Aggregated data reports are shared with the program staff at all levels.	indefinitely Paper records: stored for 5 years (3 years in the state office and 2 years in the state retention center)
Clinic data	Clinic data dictionary	Stored in the DPH file server and the Breast and Cervical Baseline and Annual Reporting System (B&C- BARS) in compliance with HIPAA regulations.	Clinic data can be accessed by the GBCCP state staff and responsible health system staff only.	Stored in the DPH file server indefinitely

Data access

- The GBCCP identifiable patient-level clinical data are not designated for public use and can be accessed by the GBCCP state staff with appropriate access rights only.
- De-identified datasets are provided when data requests are received through and approved by the DPH data request system.
- Aggregated screening and diagnosis data reports for program management, performance monitory funding tracking are shared with the program staff at all levels and public upon request.

• The data are stored in the GBCCP database in the DPH file server in compliance with HIPAA regulations and the DPH information security policies. The GBCCP state staff are required to attend refresher information security training and follow all protocols for receiving, storing, editing and sharing data.

Data archiving and long-term preservation

• All identifiable patient-level data collected from the providers electronically or in paper forms are entered in the GBCCP database. The database, with its documentations is stored in the DPH file server indefinitely. The GBCCP data management team supports the data through changing technologies, new media, and data formats.

Figure 2. Georgia Cancer Genomics Project Logic Model

INPUTS	ACTIVITIES	OUTPUTS		OUTCOMES	
 GA DPH GA CORE GA State Fund Evidence- based guidelines from USPSTF, CoC, NCCN & GA Cancer Plan Breast Cancer Genetics Referral Screening Tool (B-RST[™]) 	 Educate public health professionals, healthcare providers, and the general public regarding Hereditary Breast and Ovarian Cancer (HBOC) and the B-RST^{IM}. Screen clients for their risk of genetic mutation using the B-RST^{IM}. Refer clients with positive screening results to the Oncology/Genetics Nurse Specialist for appropriate risk assessment, testing and follow-up. Provide appropriate genetic testing, counseling, referral and management services to clients with pathogenic mutations. Develop monthly and quarterly reports. 	 No. of public health professionals, healthcare providers, and clients educated. No. of clients screened. No. and % of clients with positive screening results. No. and % of clients with pathogenic mutations who received appropriate genetic testing, counseling, referral and management services. No. of reports developed. 	 Short-term Outcomes Medically underserved women screened using the B-RST[™]. Appropriate genetic counseling, testing and follow-up services provided to women with positive screening results and/or positive cancer diagnostic results. Timely genetic testing completed prior to diagnosis of cancer due to early detection. 	 Intermediate Outcomes Increased awareness of the role of genetics in cancer prevention and treatment for public health professionals, healthcare providers, and the general public. Increased no. of individuals appropriately referred for genetic counseling and testing. Improved early cancer detection and treatment for women at high risk for HBOC. Enhanced ability to meet guidelines from USPSTF, QoC, NCCN & GA Cancer Plan. 	 Long-term Outcomes Reduced disparities in breast and ovarian cancer incidence and mortality rates among high risk women in GA. Reduced breast and ovarian cancer incidence and mortality rates in GA.

Abbreviations

GA DPH: Georgia Department of Public Health; GA CORE: Georgia Center, for Oncology Research and Education; USPSTF: United States Preventive Services Task Force; Center, Commission on Cancer; NCCN: National Comprehensive Cancer Network