

# **National Breast and Cervical Cancer Early Detection Program**

## **Evaluation Plan**

**Version 1.0**

**DP22-2202 Cancer Prevention and Control Programs  
for State, Territorial, and Tribal Organizations**

Centers for Disease Control and Prevention  
National Center for Chronic Disease Prevention and Health Promotion  
Division of Cancer Prevention and Control  
Program Services Branch

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## Introduction

Cancer is the second leading cause of death in the United States (U.S.).<sup>1</sup> In 2019, more than 1.7 million people were diagnosed with cancer, and more than 599,000 people died from cancer.<sup>1</sup> Both breast and cervical cancer are prevalent in the U.S. – in 2019, there were more than 264,000 new cases of female breast cancer and more than 12,000 new cases of cervical cancer in the U.S.<sup>1</sup> Evidence shows that deaths from both breast and cervical cancers can be avoided by increasing screening services – mammography and pap tests – among women. However, screening rates are lower among individuals who are uninsured or have only public health insurance coverage; no regular source of healthcare; lower educational attainment; and lower incomes.<sup>2</sup> As a longstanding priority within chronic disease prevention, the Centers for Disease Control and Prevention (CDC) focuses on increasing access to these cancer screenings, particularly among women who may be at increased risk.

The CDC's recent funding opportunity announcement (FOA) *Cancer Prevention and Control Programs for State, Territorial, and Tribal Organizations* (DP22-2202) supports planning and implementation of evidence-based cancer surveillance, prevention, and control strategies in communities that improve the provision of clinical preventive services, and cancer survivorship. The FOA is comprised of three distinct national programs: (1) the National Breast and Cervical Cancer Early Detection Program (NBCCEDP), (2) the National Comprehensive Cancer Control Program (NCCCP); and (3) the National Program of Cancer Registries (NPCR). These three programs are intended to work together through partnerships, leveraging resources, coordinating efforts, consistent communication, and community involvement. Ongoing assessment of the FOA is essential to determine whether program strategies and activities are effective in achieving the overall, long-term goals of the program, including decreasing cancer incidence, mortality, and advancing health equity. This written plan describes how CDC will carry out a national evaluation of the NBCCEDP only.

### The National Breast and Cervical Cancer Early Detection Program (NBCCEDP)

Directed by the Breast and Cervical Cancer Mortality Prevention Act of 1990<sup>3</sup>, CDC created the NBCCEDP to support low-income, under-insured, and uninsured women in gaining access to breast and cervical screening and diagnostic services. NBCCEDP recipients (i.e., state health departments or their bona fide agents; territories; tribal organizations) are charged with providing breast and cervical cancer screening, diagnostic services, and treatment referrals to eligible women, and implementing evidence-based strategies to reduce structural barriers to cancer screening within health systems.

<sup>1</sup> U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2021 submission data (1999-2019); U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; [www.cdc.gov/cancer/dataviz](https://www.cdc.gov/cancer/dataviz), released in June 2022.

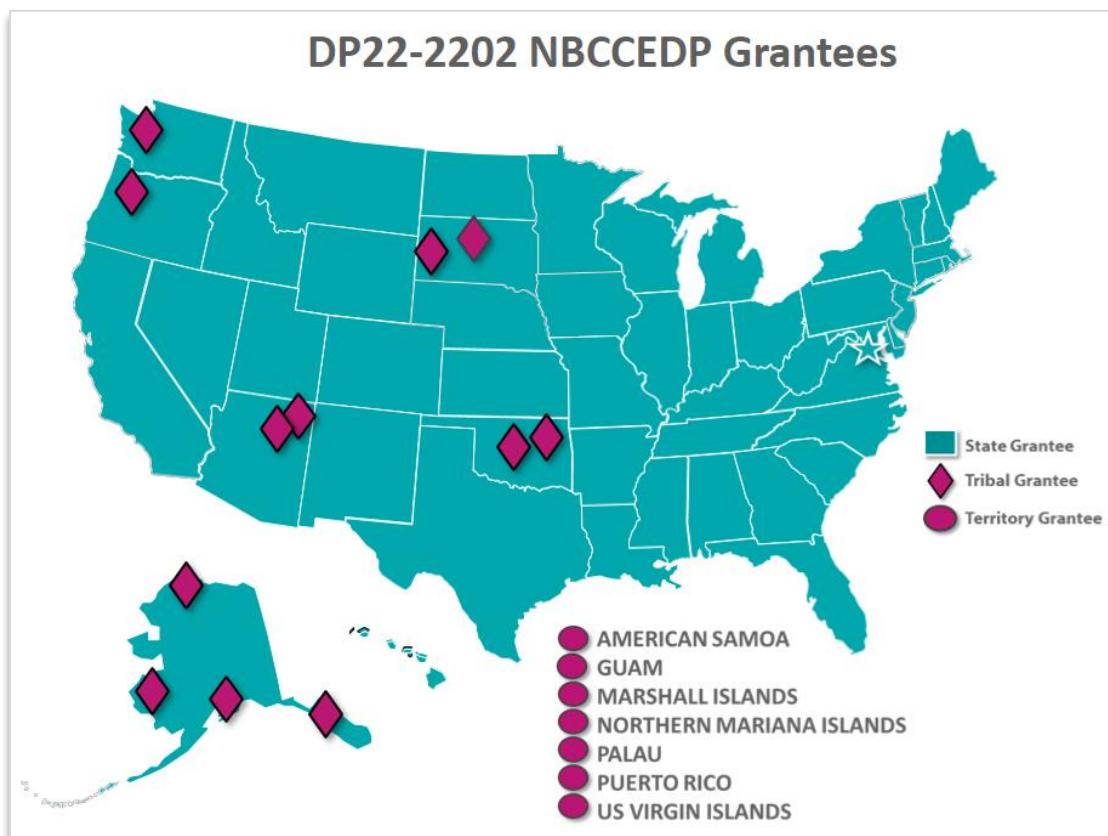
<sup>2</sup> Sabatino SA Thompson TD, White MC, et al. Cancer screening test receipt – United States, 2018. MMWR Morb Wkly Rep 2021;70:29–35. DOI: [https://www.cdc.gov/mmwr/volumes/70/wr/mm7002a1.htm?s\\_cid=mm7002a1\\_w](https://www.cdc.gov/mmwr/volumes/70/wr/mm7002a1.htm?s_cid=mm7002a1_w).

<sup>3</sup> Breast and Cervical Cancer Mortality Prevention Act of 1990. Retrieved on 10 May 2022 from <http://uscode.house.gov/statutes/pl/101/354.pdf>.

Priority populations for the NBCCEDP include women residing within defined geographical locations (as determined by the funded program) who are (1) at or below 250% of the federal poverty level; (2) aged 40-64 years for breast cancer services or aged 21-64 years for cervical cancer services; and (3) under- or uninsured. Applicants are required to use available data to describe their populations of focus (e.g., by race, socioeconomic status, health literacy). Recipients are required to prioritize reaching and providing services to populations that are disproportionately burdened by breast and cervical cancer, particularly populations that experience higher mortality and late-stage disease.

The NBCCEDP funds 70 recipients, including all 50 states, the District of Columbia, seven U.S. territories, and 12 American Indian/Alaska Native tribes or tribal organizations (**Figure 1**).

**Figure 1: U.S. Map of DP22-2202 Recipients**



## A Health Equity Lens

Health equity is “the state in which everyone has a fair and just opportunity to attain their highest level of health.” The NBCCEDP and other CDC programs work to achieve health equity by addressing social, economic, geographic, and environmental disadvantages to eliminate cancer disparities. Equity in cancer prevention and control is when all people have an equal opportunity to prevent cancer, find it early, and get the proper treatment and follow-up care after treatment is completed.<sup>4</sup>  
<sup>5</sup>

**A guiding principle of CDC’s evaluation team is to integrate health equity considerations throughout each step of our evaluation.** CDC, NBCCEDP recipients, and their partners will work to identify and serve populations of focus by addressing social determinants of health and promoting equity when implementing their programs. In turn, the CDC evaluation team will assess recipients’ progress in reaching populations of focus and reducing disparities in screening, follow-up care, and, ultimately, cancer mortality. Health equity considerations are highlighted throughout this plan.

<sup>4</sup> Centers for Disease Control and Prevention (2022). Equity in Cancer Prevention and Control. Retrieved on 14 June 2022 from <https://www.cdc.gov/cancer/health-equity/equity.htm>

<sup>5</sup> Centers for Disease Control and Prevention – Division of Community Health. *A Practitioner’s Guide for Advancing Health Equity: Community Strategies for Preventing Chronic Disease*. Atlanta, GA: US Department of Health and Human Services; 2013.

## Evaluation of the NBCCEDP

Evaluation is a systematic method for collecting, analyzing, and using data to examine program processes and outcomes, while also informing continuous program improvement. This evaluation plan focuses on CDC's approach for monitoring and evaluating the NBCCEDP component of DP22-2202 and is based on CDC's Framework for Program Evaluation (Figure 2<sup>6</sup>). This national evaluation is guided by three distinct purposes used to shape the evaluation questions and design, as well as plan for dissemination of findings. The purposes of this evaluation include to:

- improve recipient programs
- strengthen CDC's accountability to the public and Congress, as well as recipients' accountability to CDC
- inform future programmatic planning and policymaking

The plan is intended to support transparency and create a shared understanding about CDC's evaluation purpose and use of evaluation results. This plan should be considered a 'living document' and may be revised over time as new evaluation needs emerge.

## Engaging Collaborators

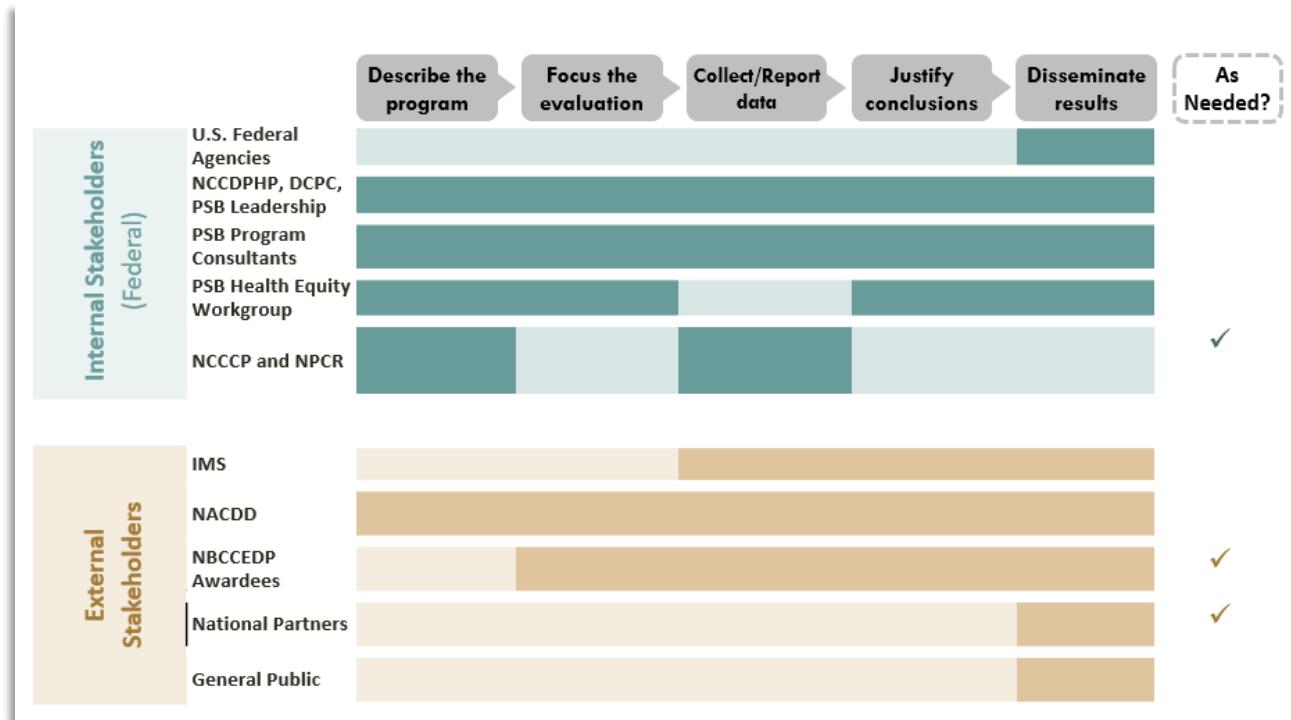
It is critical to CDC's efforts that collaborators are meaningfully engaged throughout the evaluation so that multiple perspectives are considered, and findings are useful for program improvements, planning, and policy change. A variety of internal and external collaborators will be engaged during evaluation planning, implementation, and dissemination of findings and lessons learned (Figure 3).

Figure 2: CDC's Framework for Program Evaluation



<sup>6</sup> Centers for Disease Control and Prevention. Framework for program evaluation in public health. MMWR 1999; 48(No. RR-11).

**Figure 3. Collaborator Engagement throughout the Evaluation Process**



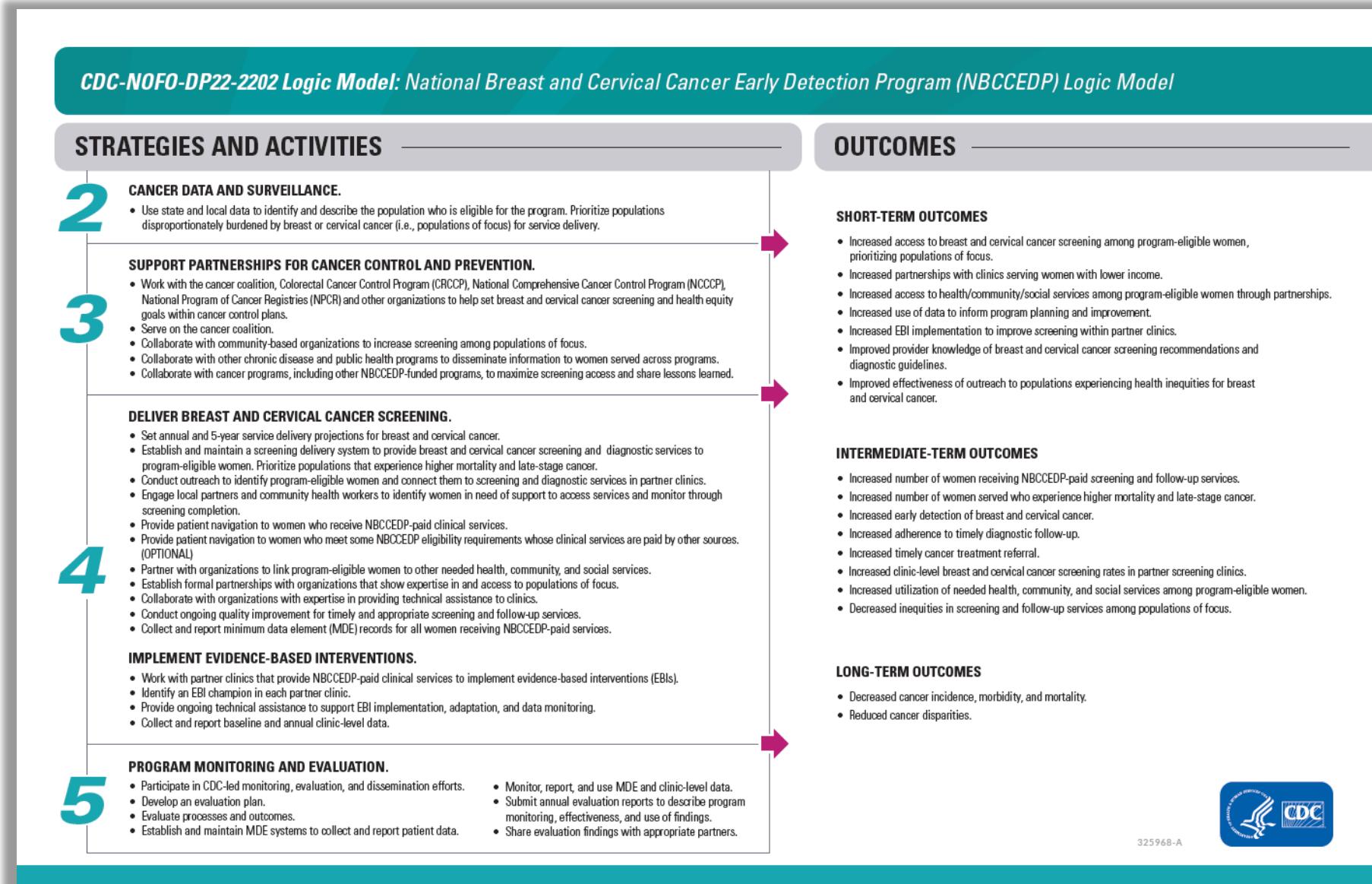
## NBCCEDP Logic Model

The Division of Cancer Prevention and Control (DCPC)'s Program Services Branch (PSB) developed a logic model for the NBCCEDP, which was included in the FOA (Figure 4). The logic model provides a visual representation of program strategies and activities aligned with the outputs and short-, intermediate, and long-term outcomes for the NBCCEDP. Recipients are expected to partner with health systems and clinics to implement five broad strategies, including using cancer data and surveillance, supporting external partnerships, delivering breast and cervical cancer screenings, implementing EBIs, and conducting program monitoring and evaluation. Implementation of these strategies is expected to lead to several short-term and intermediate outcomes –increased breast and cervical cancer screening among populations of focus – with the ultimate long-term goal of decreasing cancer incidence, mortality, and disparities.

### Describing the Program: Health Equity at the Forefront

The Program Services Branch (PSB)'s Health Equity Workgroup was engaged in development of the NBCCEDP logic model to ensure that all health-equity related activities and outcomes were embedded throughout the diagram. This enabled buy-in from a diverse set of collaborators with a shared understanding of the program's intended effects on health equity. The logic model serves as the foundation for our evaluation questions, data collections, analysis, and dissemination.

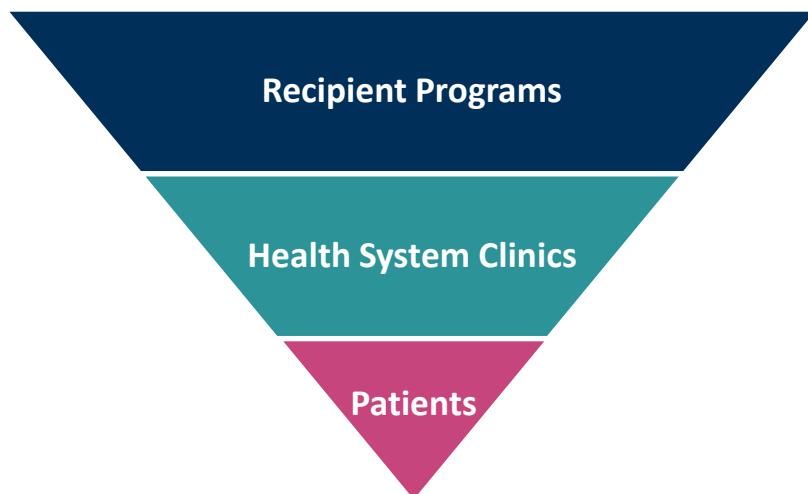
**Figure 4: NBCCEDP Logic Model**



## Evaluation Design

The CDC evaluation team will conduct a multi-component process and outcome evaluation of the NBCCEDP. Data will be collected at multiple levels - patient, health system clinic, and recipient program—to measure processes and outcomes at the various levels of implementation (**Figure 5**). This multi-level approach will involve assessment of the management practices and implementation of key program strategies, as well as patient and clinic outcomes, associated with the NBCCEDP over time.

**Figure 5: Multi-Level Evaluation Approach**



## Evaluation Questions

Using the evaluation purposes and NBCCEDP logic model as a foundation, CDC developed a comprehensive list of process and outcome evaluation questions, sub-questions, potential indicators, and data sources (**Table 1**). While the primary outcome of interest is to increase breast and cervical screening among low income, under- and uninsured women, CDC is also interested in learning about how NBCCEDP programs are implemented with respect to breast and cervical screening services and EBI implementation efforts and reaching recipient-specific populations of focus identified as having the highest need for NBCCEDP services. All indicators will be assessed in aggregate and by recipient, when possible, in addition to any analysis noted for individual indicators. *Sections and item numbers for data sources are noted in parentheses to demonstrate alignment.*

The CDC evaluation team may also conduct special studies, such as examinations of program costs and cost-effectiveness, and qualitative studies to explore how recipients are implementing program strategies. These special studies may identify promising practices that could be adapted by other NBCCEDP recipients to further enhance the positive impact of the NBCCEDP cooperative agreement.

### Asking Questions that Reflect our Health Equity Goals

NBCCEDP's health equity goals are reflected in our evaluation approach, questions, and data collection methods. Our evaluation questions and sub-questions, particularly those that assess recipients' ability to reach, serve, and reduce disparities among their populations of focus, help CDC determine what processes have worked in reaching NBCCEDP intended outcomes. We have also identified many indicators that provide a road map for how each data source will allow us to answer each of these questions.

**Table 1: NBCCEDP Process and Outcome Evaluation Question Matrix**

| Evaluation Question  | Indicators   | Data Sources   |
|--|--|----------------|
| <b>Support Partnerships for Cancer Control and Prevention</b>  |  |                |
| 1. To what extent are recipients partnering with other CDC-funded programs?  | <ul style="list-style-type: none"> <li>• #/ % recipients partnering with CDC-funded program(s), by program type</li> </ul>   | Survey         |
| 2. What is the nature of recipients' partnerships with partners? <ul style="list-style-type: none"> <li>• To what extent are partners providing support to reach populations of focus?</li> </ul>  | <ul style="list-style-type: none"> <li>• Avg. #, median #, and range of partners for recipients (limit 10)</li> <li>• #/ % partners with MOU or contract</li> <li>• #/ % partners receiving CDC funds</li> <li>• Avg. amount, median amt, and range of CDC funds received by partners</li> </ul>   | Survey         |
| <b>Deliver Breast and Cervical Cancer Screening</b>  |  |                |
| 3. What eligibility criteria for clinical services delivery are used by recipients? <ul style="list-style-type: none"> <li>• Are under-insured women provided clinical services by recipients?</li> </ul>  | <ul style="list-style-type: none"> <li>• #/ % of recipients, by federal poverty level requirement</li> <li>• #/ % of recipients by age eligibility requirement for breast and cervical</li> <li>• #/ % of recipients providing clinical services to "under-insured"</li> <li>• Range in % of under-insured women served by recipients</li> </ul>         | Survey         |
| 4. What is the composition of the NBCCEDP provider network?  | <ul style="list-style-type: none"> <li>• Total # screening provider sites</li> <li>• #/ % of screening provider sites by type</li> <li>• Avg. #, median, range of screening provider sites per recipient</li> </ul>  | Survey<br>MDEs |
| 5. Is the Medicaid Treatment Act currently in place in NBCCEDP-recipient states? <ul style="list-style-type: none"> <li>• Who is eligible to receive coverage through the Medicaid Treatment Act in states that have adopted it?</li> <li>• Do states without the Treatment Act have a process to ensure treatment for women diagnosed with cancer through the program?</li> </ul> | <ul style="list-style-type: none"> <li>• #/ % of state recipients with Tx Act in place</li> <li>• #/ % of state recipients by Medicaid Tx Act eligibility category (e.g., only women enrolled in BCEDP)</li> <li>• #/ % of state recipients without Tx Act in place that have process to ensure women diagnosed with cancer receive treatment</li> </ul> | Survey         |

| Evaluation Question   | Indicators   | Data Sources |
|---|--|--------------|
| 6. What are the characteristics of recipients' screening provider sites that also implement EBIs?   | <ul style="list-style-type: none"> <li>• #/ % of health system partners, by type</li> <li>• #/ % of clinic partners, by type</li> <li>• #/ % health system geographic locations</li> <li>• #/ % clinic geographic locations</li> <li>• #/ % new and continuing clinics</li> <li>• Avg # and range of patients, by clinic/health system</li> <li>• #/ % clinics, by status (i.e., active, suspended, monitored, terminated)</li> <li>• #/ % sites with MOU or contract</li> <li>• Avg. amount and range of CDC funding provided to clinics to support health systems change, by cancer type</li> <li>• #/ % clinics that get reimbursed for B&amp;C-paid clinical services</li> <li>• #/ % clinics that also implement CRC EBIs in clinics</li> </ul> | Clinic Data  |
| 7. To what extent are local partners and/or CHWs providing support to reach populations of focus and track them through screening completion? <ul style="list-style-type: none"> <li>• To what extent are local partners/CHWs helping to link program-eligible women to other needed health, community, and social services?</li> </ul> | <ul style="list-style-type: none"> <li>• #/ % recipients utilizing CHWs (or patient navigators)</li> <li>• # local partners, by type</li> <li>• Avg # and range of local partners per recipient</li> <li>• # women reached by CHWs/PNs</li> <li>• #/ % of women reached by CHWs/PNs who completed screening</li> <li>• #/ % of awardees using various methods to confirm screening completion, by approach</li> </ul>  | Survey       |
| 8. What activities were implemented to reach and connect program-eligible women to health, community, and social services? Were CHWs/PNs used to reach/connect populations of focus to needed services? How many women were reached through these efforts?  | <ul style="list-style-type: none"> <li>• #/ % awardees reaching and connecting women, by approach used</li> <li>• #/ % awardees reaching and connection women in populations of focus, by approach used</li> </ul>   | Survey       |

| Evaluation Question   | Indicators  | Data Sources                                 |
|---|---|--|
| <p>9. To what extent are NCCEDP screening provider sites providing patient navigation?</p> <ul style="list-style-type: none"> <li>• How many women receive PN associated with NCCEDP-funded screening/diagnostic services?</li> <li>• How many women receive PN-only services?</li> </ul> | <ul style="list-style-type: none"> <li>• #/ % women who received patient navigation and NCCEDP-paid clinical services</li> <li>• #/ % women who received patient navigation but did not receive NCCEDP-paid clinical services (i.e., PN-only)</li> <li>• # women who received patient navigation at health system/clinics where EBIs are delivered</li> <li>• #/ % total patients navigated</li> </ul>  | MDEs<br>Clinic data                          |
| <p>10. What is the annual reach of the NCCEDP for B&amp;C screening services?</p> <ul style="list-style-type: none"> <li>• What are characteristics of women receiving clinical services through the NCCEDP?</li> </ul>   | <ul style="list-style-type: none"> <li>• Total # of women served; by cancer type (not including PN-only)</li> <li>• Total # of screenings provided; by cancer type (not including PN-only)</li> <li>• Total #/ % of women served by age, race, ethnicity, and geography (not including PN-only)</li> <li>• Total # PN-only women, overall and by race, ethnicity, and age</li> <li>• # cancers detected</li> <li>• # women reached within populations of focus<sup>7</sup></li> </ul> | MDEs<br>QPU                                  |
| <p>11. What populations of focus do recipients intend to reach?</p>   | <ul style="list-style-type: none"> <li>• Projected # of women to be served by race/ethnicity, rurality, and other population identifiers indicated</li> <li>• Projected # of women to receive PN-only services, by race, ethnicity, rurality, and other population identifiers indicated</li> </ul>   | Service Delivery Projection Worksheet        |
| <p>12. To what extent are recipients able to reach their populations of focus?</p>  | <ul style="list-style-type: none"> <li>• Total # projected women to be served, and by cancer type</li> <li>• Total # projected women to receive PN-only services, and by cancer type</li> <li>• #/ % of recipients meeting screening projections for women served, by populations of focus</li> <li>• #/ % of recipients meeting screening projections for PN-only, by populations of focus</li> </ul>  | Service Delivery Projection Worksheet<br>QPU |

| Evaluation Question   | Indicators   | Data Sources                                  |
|---|--|---|
| 13. To what extent are B&C clinical services high quality?  | <ul style="list-style-type: none"> <li>• #/% timely follow-up for abnormal breast cancer screening results</li> <li>• #/% timely breast cancer treatment referrals</li> <li>• #/% timely follow-up for abnormal cervical cancer screening results</li> <li>• #/% timely cervical cancer treatment referrals</li> <li>• % women with diagnostic follow-up planned for breast cancer who received PN services</li> <li>• % women with diagnostic follow-up planned for cervical cancer who received PN services</li> <li>• #/% clinics with breast cancer screening policy in place</li> <li>• #/% clinics with cervical cancer screening policy in place</li> </ul> | MDEs<br>Clinic data                           |
| 14. What are trends in B&C clinic-level screening rates over time?  | <ul style="list-style-type: none"> <li>• Avg. and range baseline clinic-level screening rate</li> <li>• Avg. and range annual clinic-level screening rate</li> <li>• Avg. weighted change in percentage points of clinic-level screening rate, by recipient and NCCEDP</li> </ul>  | Clinic data                                   |
| 15. To what extent do recipients meet annual and 5-year service delivery projections?   | <ul style="list-style-type: none"> <li>• #/% recipients who meet overall annual screening delivery projections</li> <li>• #/% recipients who meet annual breast screening delivery projections</li> <li>• #/% recipients who meet annual cervical screening delivery projections</li> <li>• #/% recipients who meet annual PN-only projections</li> <li>• #/% recipients who meet 5-year breast screening delivery projection</li> <li>• #/% recipients who meet 5-year cervical screening delivery projection</li> <li>• #/% recipients who meet 5-year PN-only projection</li> </ul>   | Service Delivery Projection Worksheet<br>MDEs |
| Implement Evidence-Based Interventions  |  |   |
| 16. What EBIs are recipients implementing in clinics? <ul style="list-style-type: none"> <li>• Are multiple EBIs being implemented within clinics?</li> <li>• What EBIs (or combination of EBIs) are associated with greater</li> </ul> | <ul style="list-style-type: none"> <li>• #/% clinics implementing each EBI, at baseline and annually</li> <li>• #/% clinics using NCCEDP resources to support EBI implementation, by EBI</li> <li>• #/% clinics implementing new EBIs, by EBI type</li> <li>• #/% clinics continuing EBI implementation, by EBI type</li> <li>• #/% clinics implementing enhanced EBIs, by EBI type</li> </ul>   | Clinic data                                   |

| Evaluation Question   | Indicators  | Data Sources          |
|---|---|-----------------------|
| increases in B/C screening within health system clinics?  | <ul style="list-style-type: none"> <li>• #/ % clinics implementing EBIs in multiple ways, by EBI type</li> <li>• Avg. and range of EBI frequency, by EBI type</li> <li>• #/ % clinics implementing multiple EBIs</li> </ul>   |                       |
| 17. To what extent are EBIs sustainable <sup>8</sup> without NBCCEDP funding?<br>• What factors are associated with EBI sustainability? | <ul style="list-style-type: none"> <li>• #/ % clinics with at least one sustainable EBI</li> <li>• #/ % clinics implementing sustainable EBIs, by EBI type</li> <li>• #/ % clinics implementing sustainable EBIs, by clinic type</li> <li>• Avg. # and range PYs needed for EBI to reach sustainability</li> </ul>  | Clinic data           |
| 18. To what extent are clinics utilizing screening champions?   | <ul style="list-style-type: none"> <li>• #/ % clinics with identified breast screening champion</li> <li>• #/ % clinics with identified cervical screening champion</li> </ul>  | Clinic data           |
| 19. To what extent are recipients able to recruit health systems and/or clinics for EBI implementation?                                 | <ul style="list-style-type: none"> <li>• # health systems recruited</li> <li>• # active health systems</li> <li>• Avg. # and range of health systems recruited per recipient</li> <li>• # clinics recruited</li> <li>• # active clinics</li> <li>• Avg. # and range of clinics recruited per recipient</li> <li>• # providers at clinics</li> </ul>   | Clinic data           |
| 20. What EBI-related technical support is provided by recipients or their partners to clinics to support EBI implementation?            | <ul style="list-style-type: none"> <li>• #/ % recipients who provided EBI-related support to clinics</li> <li>• #/ % partners who provided EBI-related, QI, or EHR support to clinics</li> <li>• #/ % recipients who provided EBI-related support to clinics, by mode of delivery</li> <li>• Frequency of recipient implementation support to clinics, by cancer type</li> <li>• #/ % clinics/health systems that receive financial resources from recipient, by cancer type and amount</li> <li>• Total, average, median, range of B&amp;C financial resources received by clinics for EBI implementation</li> </ul> | Survey<br>Clinic data |

| Evaluation Question  | Indicators  | Data Sources              |
|--|---|---------------------------|
| <b>Program Monitoring and Evaluation</b>   |   |                           |
| 21. To what extent are recipients developing evaluation plans consistent with CDC requirements as stated in the NOFO?  | <ul style="list-style-type: none"> <li>• #/ % recipients with evaluation plans submitted within 6 months of award</li> <li>• #/ % recipients with updated evaluation plans submitted end of PY3</li> <li>• #/ % evaluation plans that meet basic CDC requirements</li> </ul>  | Recipient evaluation plan |
| 22. To what extent are recipients developing evaluation reports consistent with CDC requirements as stated in the NOFO?  | <ul style="list-style-type: none"> <li>• #/ % recipients with annual evaluation reports submitted by due date</li> <li>• #/ % annual evaluation reports that meet basic CDC requirements</li> </ul>   | Recipient evaluation plan |
| 23. To what extent are data complete and high quality? <ul style="list-style-type: none"> <li>• To what extent are clinic data monitored for quality?</li> </ul> | <ul style="list-style-type: none"> <li>• #/ % clinics utilizing health IT for data quality</li> <li>• #/ % clinics utilizing health IT for program monitoring</li> <li>• #/ % clinics with no missing baseline data records</li> <li>• #/ % clinics with no missing annual records</li> <li>• Avg clinic data error rates</li> <li>• #/ % clinics with decreased error rates over time</li> <li>• #/ % clinics using EHR vendor, by type and level of implementation</li> <li>• #/ % of clinics that change EHR vendors over time</li> <li>• MDE error rates (under 1%)</li> <li>• #/ % clinics with screening rates monitored at least quarterly</li> <li>• #/ % clinics that conduct screening validation</li> <li>• #/ % recipients with complete (data quality) action items</li> <li>• #/ % clinics with QA/QI specialist in place</li> <li>• #/ % clinics that implemented process improvements</li> <li>• #/ % clinics with low/medium/high confidence in EHR-generated screening rate</li> <li>• #/ % clinics receiving TA from HCCN</li> </ul> | Clinic data<br>MDEs       |

| Evaluation Question  | Indicators  | Data Sources             |
|--|---|--------------------------|
| <b>Program Management</b>  |   |                          |
| <p>24. What successes and challenges have recipients experienced related to program management, implementation (i.e., service delivery, EBI implementation), and/or evaluation?</p> <ul style="list-style-type: none"> <li>What challenges have recipients experienced related to spending their NBCCEDP award?</li> </ul> | <ul style="list-style-type: none"> <li>Descriptions of successes and challenges</li> </ul>  | Quarterly Program Update |
| 25. What CDC TA resources have been most helpful for recipients?   | <ul style="list-style-type: none"> <li>TA resources, by level of helpfulness</li> </ul>   | Survey                   |
| 26. What are recipients' technical assistance needs?   | <ul style="list-style-type: none"> <li>Descriptions of TA needs</li> </ul>  | Quarterly Program Update |
| 27. What non-NBCCEDP funding do recipients receive to support the program?   | <ul style="list-style-type: none"> <li>Total non-NBCCEDP funding received by recipients, in aggregate and by recipient</li> <li>Total non-NBCCEDP funding received by recipients, by source, in aggregate and by recipient</li> </ul> | Survey                   |
| 28. What is the quarterly estimated spend-rate for NBCCEDP recipients?   | <ul style="list-style-type: none"> <li>Avg. and range of estimated spend rate, by quarter, in aggregate and by recipient</li> </ul>   | Quarterly Program Update |
| 29. What payment reimbursement models do recipients utilize?   | <ul style="list-style-type: none"> <li>Payment reimbursement models, by type</li> </ul>   | Survey                   |
| <b>Impact of COVID-19</b>  |   |                          |
| 30. To what extent are recipients partnering with state and local COVID vaccine efforts?   | <ul style="list-style-type: none"> <li>#/% recipients that partnered with state or local COVID vaccine efforts</li> </ul>   | Survey                   |

| Evaluation Question   | Indicators   | Data Sources              |
|---|--|---------------------------|
| <p>31. How has the COVID-19 pandemic affected B&amp;C clinic operations and service delivery?<sup>9</sup></p> <ul style="list-style-type: none"> <li>• To what extent did recipients partner with state and/or local COVID testing and/or vaccination efforts?</li> </ul> | <ul style="list-style-type: none"> <li>• #/ % clinics that closed due to COVID-19</li> <li>• #/ % clinics with reduced hours due to COVID-19</li> <li>• Avg. and range of length of clinic closures</li> <li>• Avg. and range of # of clinic hours, weeks reduced</li> <li>• #/ % clinics whose breast cancer screening and/or diagnostic services were impacted due to COVID-19, by activity</li> <li>• #/ % clinics whose cervical cancer screening and/or diagnostic services were impacted due to COVID-19, by activity</li> <li>• #/ % clinics whose EBI implementation was impacted by COVID-19, by EBI</li> <li>• #/range of BCCP-funded staff <b>deployed</b> for COVID-19, by recipient</li> <li>• #/ % recipients that experienced <b>staffing shortages</b> due to COVID-19 (non-deployment)</li> <li>• #/ % provider sites with <b>staffing shortages</b> that limited screening capacity, by scale category</li> <li>• % provider sites that <b>suspended or reduced</b> screening due to COVID-19</li> <li>• % provider sites for which recipients suspended TA</li> <li>• # recipients who assisted clinics to screen women who missed or delayed screening due to COVID-19</li> <li>• Descriptions of other ways recipient programs were affected by COVID-19</li> </ul> | Survey<br><br>Clinic Data |

<sup>7</sup> We will be able to determine recipients' ability to reach populations of focus by race/ethnicity and rurality only. Recipients may identify populations of focus based on other characteristics (e.g., LGBTQ) that are not captured in our national evaluation data sources and may assess their ability to research these groups through their program-specific evaluations.

<sup>8</sup> **Definition of sustainability:** High quality implementation that has been achieved and a supporting infrastructure is in place along with any financial support needed to maintain the intervention. The intervention has become an institutionalized component of the health system and/or clinic operations.

<sup>9</sup> At the clinic level, this will only be assessed for those clinics implementing EBIs.

## Evaluation Methods

CDC will conduct a mixed methods evaluation using multiple data sources to answer the evaluation questions and sub-questions of interest. Throughout the five-year funding cycle, CDC will conduct standardized data collections (**Table 2**) on a routine schedule (e.g., quarterly, annually) as well as periodic special studies. Together, these data sources will allow CDC to provide on-going updates to internal and external collaborators on incremental program progress, as well as presentations, manuscripts, and guidance documents to highlight program improvements, best practices and communicate program effectiveness towards increasing breast and cervical cancer screening and achieving health equity. OMB approval has been obtained for primary data collection efforts as required.

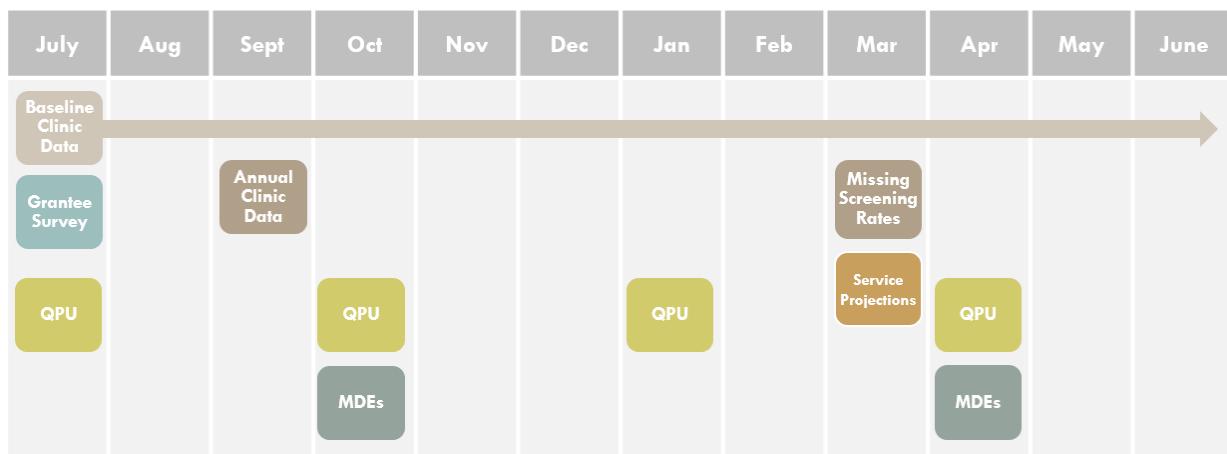
**Table 2: Data Collection Methods for Process and Outcome Evaluation**

| Data Source                            | Description  |
|--|--|
| <b>Service Projections</b>             | Program level estimates of the <b>number of women to be served</b> for breast and cervical cancer clinical services during the program year, which are set annually by recipients. These include the number of women to receive clinical services overall and delineated by populations of focus (i.e., by race/ethnicity and rurality).   |
| <b>Quarterly Program Updates (QPU)</b> | The <b>QPU</b> supports rapid reporting of programmatic information to support CDC program consultants in monitoring progress and providing tailored and meaningful TA. The QPU gathers data on federal award spending, clinical services delivered, and staffing vacancies, among other topics.   |
| <b>Minimum Data Elements (MDEs)</b>    | In order to monitor the delivery of screening services, recipients collect patient-level data elements ( <b>MDEs</b> ) that are reported biannually. These patient level data elements include patient demographics; breast and cervical cancer screening procedures; diagnoses; treatment; and registry data.   |
| <b>Clinic-Level Data</b>               | Recipients collect <b>baseline and annual clinic data</b> for each NBCCEDP partner health system clinic where EBIs are implemented and report these to CDC annually. Data elements include health system and clinic identifiers, partnership status, and characteristics; patient population demographics; screening rates; monitoring and quality improvement activities; EBI implementation; and other activities. |
| <b>Annual NBCCEDP Survey</b>           | Management and implementation of the NBCCEDP will be assessed through the <b>Annual NBCCEDP Survey</b> administered by CDC. Data elements captured through the survey include program management, partnerships, screening delivery, EBI implementation, and the impact of COVID-19 on program implementation at the recipient level.   |

|                        |  |
|------------------------|--|
| <b>Special Studies</b> | CDC will periodically conduct special studies (e.g., cost, cost-effectiveness, qualitative case studies) to answer important questions that cannot be addressed using the other data collections. These studies will be determined based on our evaluation questions and CDC priorities. |
|------------------------|--|

Data reporting will occur throughout the 5-year funding period. **Figure 6** illustrates the reporting timeline. More detailed information on the data reporting timeline is provided in **NBCCEDP Program Manual, Part II: Monitoring and Evaluation**.

**Figure 6: Data Reporting Timeline for All Recipients**



## Use of Evaluation Findings

Use of routine and periodic evaluation findings by stakeholders will vary. In addition to the anticipated uses described below, CDC expects that some collaborators will develop new uses for evaluation findings that help to inform program implementation, policy, future funding cycles, and use of promising practices over time.

- **NBCCEDP Recipients.** CDC will provide recipients with regular updates on monitoring and evaluation results to keep them informed about program reach, implementation activities, and effectiveness. Recipients can use these data to inform program improvement and accountability. CDC will support recipients in disseminating their local evaluation results to one another and to other stakeholders.

- **PSB Program Consultants (PCs).** Evaluation findings will provide critical information to inform TA and guidance to recipients. Program data at the recipient-level and in aggregate are provided to PCs via dashboards to support monitoring efforts and provision of TA.
- **PSB Health Equity Workgroup.** Evaluation results will be shared with PSB's Health Equity workgroup to inform their ongoing efforts to address social determinants of health and achieve health equity.
- **NCCDPHP, DCPC, and PSB Leadership.** Within DCPC, evaluation results will be used to monitor recipient progress for the purposes of program improvement, accountability, and program-level policy making. Program results on the number of women reached through the NBCCEDP; screening/diagnostics service delivery; EBI implementation activities; and clinic-level screening rates will be reported to branch, division, and center leadership on a routine basis.
- **NCCCP and NPCR.** As the other two components within the DP22-2202 cooperative agreement, NCCCP and NPCR teams are interested in NBCCEDP evaluation findings related to collaboration across programs and other efforts. For example, we anticipate that NBCCEDP program data will complement data collected by the NCCCP and NPCR. Together, CDC can better assess the overall impact of DP22-2202.
- **Federal Agencies.** Several federal agencies, such as the Department of Health and Human Services (DHHS), the Government Accountability Office (GAO), the Office of Management and Budget (OMB), and the U.S. Congress, are interested in NBCCEDP reach to priority populations and program outcomes. CDC is required to report annually on specific indicators for the NBCCEDP to some of these agencies. These stakeholders expect results based on high-quality, quantitative data on screening/diagnostics service delivery and clinic-level screening rates. Stories of individual recipients' programmatic efforts are also of interest and valuable for communicating the recipients' successes.
- **National Partners.** National partners (e.g., American Cancer Society, National Association of Community Health Centers) will use results to understand NBCCEDP reach by state or jurisdiction and results across various populations. These collaborators will also have interest in specific strategies identified as effective or promising for broader implementation in the field.
- **General Public.** As a federally funded program, the CDC is responsible to the American public and must demonstrate efficient and effective use of public dollars. The public will want to know who was served and what was achieved. To reflect CDC's Online First priority, program results will be made available to the public via the CDC website (<https://www.cdc.gov/cancer/nbccedp/index.htm>), as well as through peer-reviewed journal publications, policy briefs, and other methods such as press releases.

## Data Analysis, Reporting, and Dissemination

Multiple analysis methods will be used based on the evaluation question to be answered and the data available. CDC uses several strategies to support collection of high-quality data and maintains unique data sets for all data collections. Descriptive analyses are conducted as well as other types of analyses needed to address the evaluation question at hand. NCCEDP baseline and annual clinic data, MDEs, Annual Awardee Survey data, and Quarterly Program Update data will be maintained as longitudinal data sets and analyzed in SAS. An Excel file will be used to maintain Service Delivery Projection Worksheets.

As noted in the section above, CDC uses a range of approaches to disseminate findings to our stakeholders (e.g., CDC website, data dashboards, policy briefs, journal publications). Dissemination methods will be determined based on the type internal and external collaborator with which information is being shared.

### Highlighting NCCEDP's Impact on Health Disparities

CDC will use several data analysis procedures across a variety of data sources to track and assess NCCEDP's ability to reach and provide high quality screening and patient navigation services to recipients' populations of focus. Our approach to sharing evaluation findings with collaborators will focus on NCCEDP's progress towards achieving health equity by highlighting the extent to which NCCEDP's processes have worked to achieve desired program outcomes.