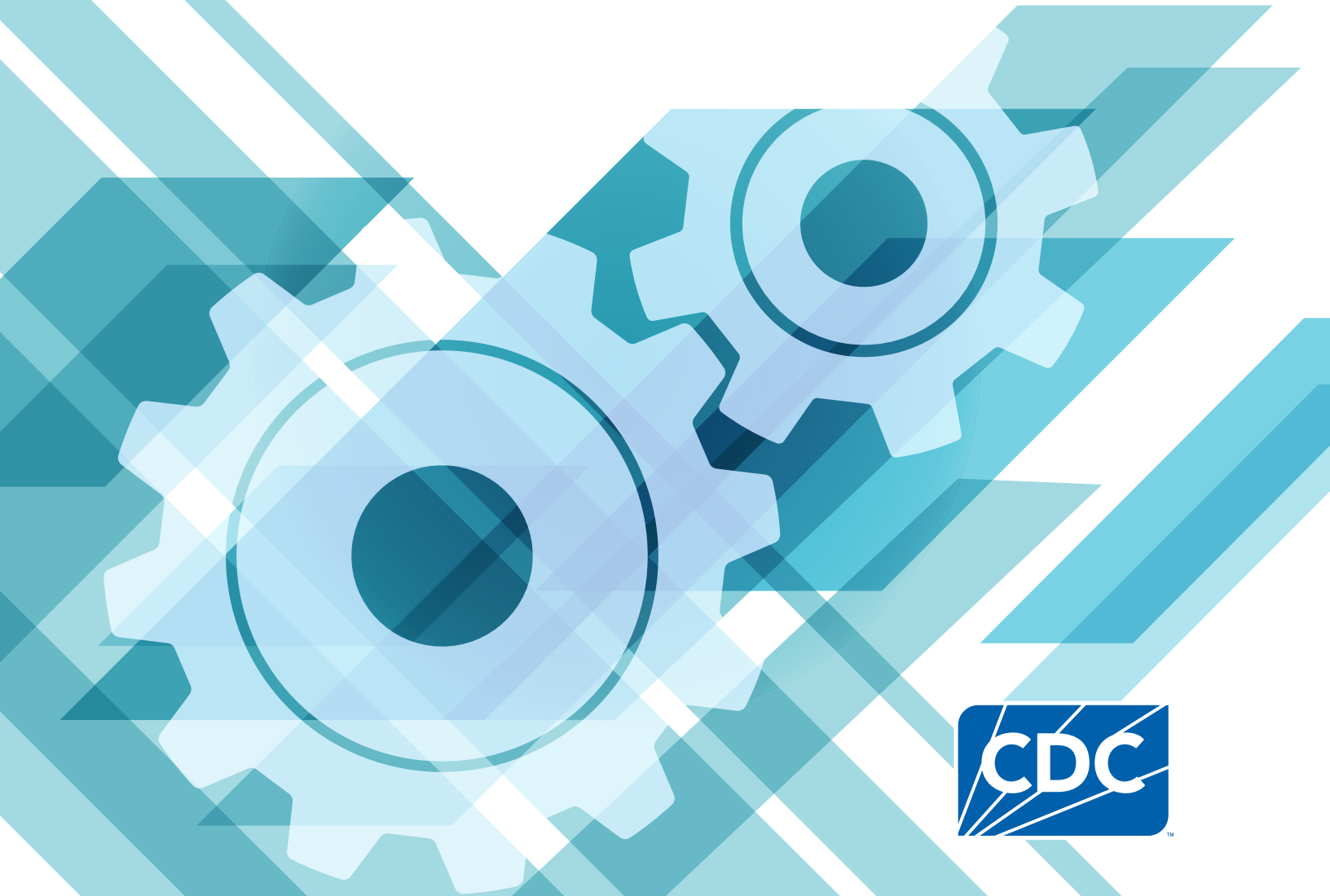
# NATIONAL COMPREHENSIVE CANCER CONTROL PROGRAM

## Trends Report: 2017–2022



CS 350396-A August 2024

For accessibility, detailed tables of the data used to create Figures 1–9 are provided in the Appendix on pages 15–24.

**Suggested Citation**

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For more information, visit the National Comprehensive Cancer Control Program website.

# Contents

# About the NCCCP

The CDC's National Comprehensive Cancer Control Program (NCCCP) was established in 1998 and currently supports award recipients in all 50 states, the District of Columbia, and several American Indian and Alaska Native tribes and tribal organizations, US territories, and US-Affiliated Pacific Island jurisdictions. Coalitions create and implement comprehensive cancer control plans and apply evidence-based strategies to address the effects of cancer in their communities. During each 5-year program period, performance measures are collected to describe award recipients' efforts to sustain partnerships and use interventions that address NCCCP's overarching priorities:

- Emphasize primary prevention.
- Promote early detection and treatment.
- Address the needs of cancer survivors.
- Work towards health equity.

Three cross-cutting priorities support award recipients as they execute efforts that include (1) policy, systems, and environmental (PSE) approaches, (2) health equity, and (3) evaluation. In the project period (DP17-1701 Notice of Funding Opportunity Announcement) that began in 2017, award recipients were expected to set up evidence-based interventions (EBIs) in four areas along the cancer control continuum: prevention, screening, survivorship, and health equity.

# NCCCP Partnerships

CDC advises award recipients to build multisector coalitions to support their cancer prevention and control activities and help them achieve their objectives. NCCCP recipients develop relationships with a variety of organizations from different sectors. A recent assessment of NCCCP partnerships shows recipients most commonly seek out partners from the government, health care, Nonprofit academic and for-profit sectors. NCCCP partners consisted of 50 government organizations, 39 health care organizations, 23 Nonprofit organizations, 20 community-based organizations, 14 educational institutions, and 11 for profit businesses when averaged over the reporting period. NCCCP recipients seem more comfortable creating relationships with government and health care organizations, possibly due to similar infrastructure and goals. The NCCCP works to strengthen the relationship with partners across all sectors.

# About This Report

In 2017, NCCCP funded 66 programs for 5 years to assemble cancer coalitions to develop and set up state- or jurisdiction-wide cancer control plans. These plans provide roadmaps to use EBIs to prevent cancer, promote early detection of cancer, support cancer survivors, and reduce cancer disparities. CDC works to support these award recipients by providing access to resources and guidance on assessing and addressing the effects of cancer nationwide. To understand and support award recipients in their comprehensive cancer control work, CDC conducts evaluations every 5 years of this 5-year program. This report summarizes the efforts of award recipients to address NCCCP's primary priorities during Program Year 1 to Program Year 5 (June 30, 2017, to June 29, 2022) and expands the understanding of trends associated with prevalence and with program planning and implementation of the program. All reports are available to the public in the resources section of NCCCP's Award Management Platform; they include:

- National Comprehensive Cancer Control Program Highlights: 2012 to 2017 (re-release)
- Spotlight on CDC's National Comprehensive Cancer Control Program 2017–2018 (re-release)
- National Comprehensive Cancer Control Program Year 2 Report 2018–2019 (re-release)
- National Comprehensive Cancer Control Program Outcomes: 2019–2020
- Spotlight on 5 Years of CDC's National Comprehensive Cancer Control Program

This report is based on a review of the 66 action plans submitted to CDC for the 2017–2022 program cycle. The action plans represent the program's 66 award recipients, including the Federated States of Micronesia, where each of the four states—Chuuk, Kosrae, Pohnpei, and Yap—submit individual plans. The action plans describe each award recipient's 5-year program objectives and annual objectives. The report also looks at trends in BRFSS data for its analysis of how programs addressed burden in their action plans over the 5-year cooperative agreement. Information about these activities is presented on U.S. maps that provide data on specific cancer-related health behaviors, risk factors, and screening objectives to highlight how award recipients address the effects of cancer in their communities. The maps provide a snapshot of how state award recipients are using a specific strategy to prevent and control cancer. Information about activities conducted by award recipients in Native American tribes and tribal organizations, U.S. territories, and U.S.-Affiliated Pacific Island jurisdictions is provided in the percentages reported on each map. Each map presents information about a single strategy or approach.

## Data Sources

Data submitted by NCCCP award recipients representing Program Years 1, 2, and 3 were extracted from CDC's Division of Cancer Prevention and Control (DCPC) data lake, cleaned, and analyzed using descriptive statistics. Years 4 and 5 program data were extracted from NCCCP award recipients annual progress reports and CDC's Award Management Platform (AMP). The DCPC Data Lake and AMP constitute a centralized data hub that combines data from internal and external sources to create a single common data repository. This application provides current and historical data about the Comprehensive Cancer Control (CCC) program and its award recipients.

## NCCCP Key Outcomes

NCCCP award recipients continue to address NCCCP priority areas: primary prevention, early detection, cancer survivorship, and health equity through setting up EBIs in their jurisdictions. Putting these EBIs into practice occurs through program partners who represent a multitude of sectors discussed and lend their support in the planning, implementation, and evaluation of programmatic efforts. During the funding years, NCCCP award recipients were expected to set up EBIs in the four priority areas. The four NCCCP priority areas include:

- Primary prevention to reduce people's risk of developing cancer specifically activities to reduce tobacco use among adults, reduce the prevalence of obesity, and increase human papillovirus (HPV) vaccination among teenagers.
- Early detection to make sure everyone gets the proper cancer screening at the right time activities designed to increase colorectal, breast, and cervical cancer screening.
- Cancer survivorship to help cancer survivors live longer, healthier lives.
- Activities to develop programs, policies, and infrastructure to improve quality of life for cancer survivors and ensure that patients receive survivorship care plans.
- Health equity to make sure communities with worse cancer outcomes have the best opportunities for improving health.
- Activities designed to reduce structural barriers to increase community access to cancer screening.

To address these four priority areas, award recipients used environmental approaches, health systems changes, and community-clinical linkages. Each priority area can be set up using three strategies:

- Environmental approaches promoting policies and changing physical surroundings to make the healthy choice the easy choice.
- Health system changes that guide improvements in medical care to increase access to quality care and allow doctors to diagnose and better treat cancer.
- Community-clinical linkages that provide access to community resources to support patients' ability to follow clinical recommendations outside the clinical setting.

NCCCP[a] recipients used a diverse set of EBIs[b] to reduce cancer risk, increase screening and support survivors, and advance health equity. The most common activities for each NCCCP per priority over the 5 years are in the table.

## Table 1. Percentage of National Comprehensive Cancer Control Program award recipients' activities implemented for priority areas, Years 1 June 30, 2017, to Year 5 June 29, 2022.

| Year | Primary Prevention | Early Detection and Screening | Survivorship | Health Equity | Total EBIs |
|---|---|---|---|---|---|
| Year 1 | 33.7% | 25.8% | 18.5% | 22.0% | 523 |
| Year 2 | 33.2% | 26.0% | 19.4% | 21.4% | 515 |
| Year 3 | 35.2% | 24.2% | 17.0% | 23.0% | 335 |
| Year 4 | 53.1% | 24.2% | 16.1% | 6.68% | 273 |

Primary prevention activities were the most frequent (33% to 53%) throughout the first 4 years, followed by screening and early detection (25% to 28%), health equity (22% to 11%), and then cancer survivorship (18% to 55%), except in Year 4 and Year 5, when the proportion of cancer survivorship activities was higher than of health equity activities. The decline in EBI activities may be due to programmatic and contextual factors: tools used to monitor and report program efforts changed, which affected data abstraction from progress reports and the COVID-19 public health emergency's effects on programs. This trend may reflect collaboration with chronic disease partners who contributed resources for primary prevention and early detection, which in turn, allowed comprehensive cancer control programs to shift their focus to survivorship efforts. These kinds of efforts reduce duplication in primary prevention and early detection and provide programs with the opportunity to focus their resources and efforts on survivorship.

The activities in the table were used to monitor the performance of NCCCP award recipients and identify strategies used most often to prevent and control cancer. Award recipients are required to use current cancer data to make informed program decisions. Data on cancer and other chronic disease indicators help award recipients allocate resources appropriately and focus on strategies that address local health needs.

During the award period, the Behavioral Risk Factor Surveillance System (BRFSS) data showed a downward trend in tobacco consumption and in cervical and breast cancer screening prevalence.[1] HPV vaccination and cancer survivorship activities showed increases. Details of key outcomes are discussed in the next section. This trends report provides evidence that programs are using the data to drive their programmatic activities and contribute to cancer prevention and control outcomes in their jurisdiction.

[a] National Comprehensive Cancer Control Program

[b] Evidence Based Intervention

Abbreviation: EBI, evidence-based intervention

# Primary prevention: policy, systems, and environmental approaches

PSE transformation is a long-term process that calls for strategy and systems thinking, a commitment to continuous improvement, and the ongoing involvement of a wide range of affected partners and communities.[2] In addition, other factors can aid in success such as (1) having a clear vision and mission to help build support and awareness for partnership and gain momentum toward a common cause; (2) planning actions to identify goals, strategies, and defined roles (responsibilities and accountability); (3) developing and supporting leadership; and (4) documenting ongoing feedback on progress, celebrating accomplishments, and evaluating the partnership's effectiveness.[3]

Several of these drivers are crucial before and throughout the PSE adoption and early implementation phase. Change techniques in the field of PSE aim to go beyond programming and into the systems that construct the frameworks in which we work, live, and play. These approaches frequently work together; for instance, a policy or system change may further an environmental change. Similarly, a policy that results in additional environmental changes could be used. An effective PSE strategy strives to contact populations and identify sustained impact strategies.[4] The award recipients applied PSE at all levels. Examples include indoor smoking bans to reduce secondhand smoke, increasing access to healthy foods and beverages to improve healthy behavior, mass media campaigns for tobacco cessation, and initiatives to increase physical activity.

To promote primary cancer prevention and accomplish the goals in their comprehensive cancer control plans, NCCCP award recipients deployed PSE techniques. From 2017 to 2022, the percentage of NCCCP beneficiaries who used PSE techniques increased from 33% in 2017–2018 to 53% in 2020–2021. In the 2020–2021 award period we observed a decrease in primary prevention activities; these activities may have been affected by the COVID-19 pandemic and by a change in the data platform and objective requirements. State statistics from the BRFSS Prevalence & Trends Data and the National Immunization Reporting System are provided in the next section of this report. These systems collect data on immunization, obesity, physical activity, and cigarette smoking. We present comparisons of the data and the activities that NCCCP users undertook to address health behaviors and health risks in Years 1 and 5.

## Tobacco-Related Activities and Prevalence of Adult Cigarette Smoking

The primary contributor to both cancer and cancer-related deaths is tobacco. Because tobacco products and secondhand smoke include many chemicals that harm DNA, those who use tobacco products or are exposed to secondhand smoke have a higher chance of developing cancer. Many types of cancer, such as lung, bronchus, and trachea, larynx, mouth and throat, esophagus, bladder, blood (acute myeloid leukemia), kidney and renal pelvis, liver, stomach, pancreas, colon and rectum, and cervix, are caused by tobacco use.[5]

Figure 1 shows the prevalence of cigarette smoking in the 50 states and the states that implemented activities to reduce tobacco consumption. In 2017 the Midwest and Southeastern states had the greatest prevalence of adult cigarette smoking in the United States, estimated at 19.4% to 26.4%. Numerous comprehensive cancer control initiatives in these locations made use of activities that have been proven to reduce adult tobacco consumption. Over the course of 5 funding years, the number of award recipients who used tobacco-related activities ranged from 26% to 62%.

Program activities such as educational initiatives as well as smoke-free rules and ordinances were used in locations such as college campuses, low-income housing, workplaces, and outdoor spaces. During the award period, the prevalence of tobacco consumption in the Midwest and Southeastern states decreased from 19.4%–16.4% to 18.2%–22.6%. Tobacco initiation prevention and cessation interventions are viable strategies that can decrease the impact of smoking on public health. Cessation of smoking reduces the risk of early death and can add up to 10 years to life expectancy.[6]

## Figure 1. Percentage of National Comprehensive Cancer Control Program award recipients that conducted tobacco-related activities and prevalence of adult cigarette smoking in 2017–2020, by state.

Circles on the maps indicate which award recipients conducted activities. Detailed prevalence data is in Appendix Table 1.

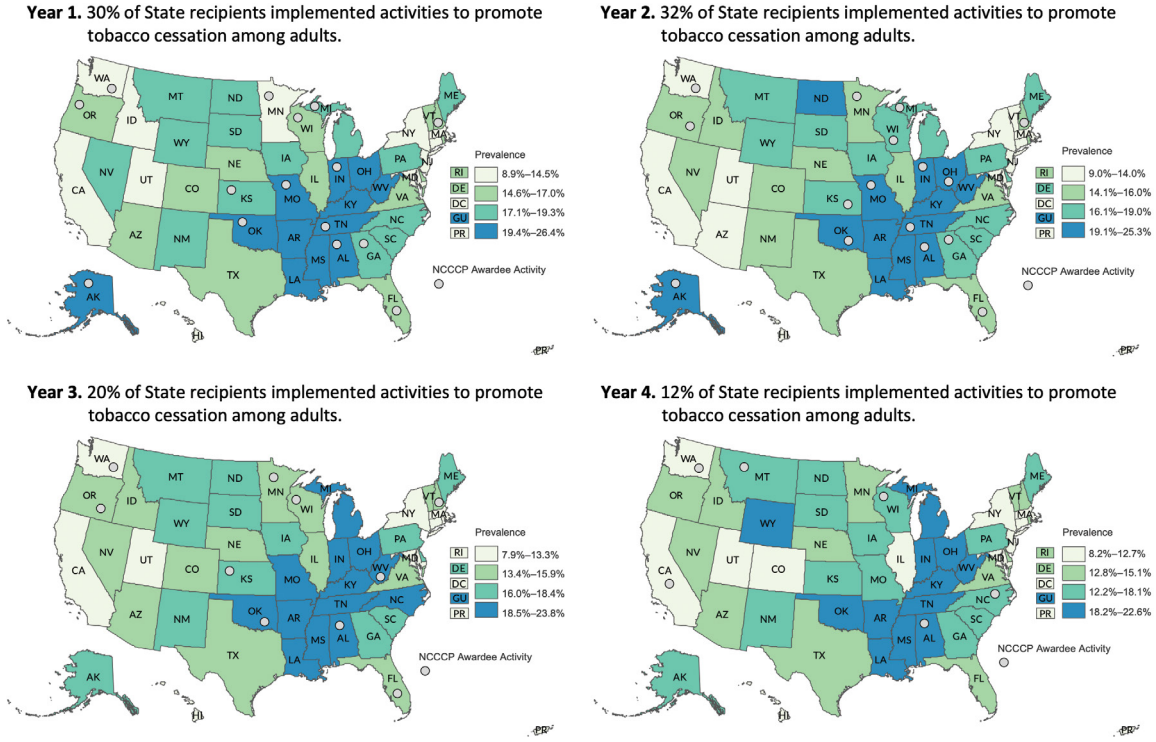



Figure 1 shows the prevalence of adult cigarette smoking in Years 1–4 in each of the 50 states and state award recipients that conducted tobacco-related activities. The color scale shows the percentage prevalence of cigarette smoking grouped by quartiles. The tobacco-related activities are indicated by circles in the states that conducted tobacco-related activities. Abbreviation: NCCCP = National Cancer Control Program

# Obesity Reduction Activities and Prevalence of Obesity-Related Cancers

Being overweight or obese (body mass index >= 25 kg/m2) is associated with an increased risk of developing 13 types of cancer, including colorectal, uterine, ovarian, pancreatic, liver, and postmenopausal female breast cancer.[7] These cancers make up 40 percent of all cancers diagnosed in the United States each year.[7] Most cancers linked to obesity and overweight increased in the United States during 2017 to 2022, but cancers linked to other variables decreased. During this period, the rate of new cancers linked with overweight and obesity (excluding colorectal cancer) rose by 2%.[7] In 2017 and 2022, the Midwest and South had the greatest prevalence of adult obesity in the United States (Figure 3). According to recent research, 20% of children and 42% of adults are obese.[8]

Activities such as the establishment of community gardens and the requirement for physical activity in schools have been carried out as part of comprehensive cancer control programs to promote a healthy diet and physical activity. The percentage of award recipients that completed obesity prevalence reduction activities, including nutrition and/or physical activity, decreased from 62% in the 2017–2018 program year to 44% in the 2020–2021 program year (Figure 2). The use of activities addresses states' burden; for example, the prevalence of obesity in North Dakota and Oregon decreased from highs of 38.1% and 31.6 to highs of 35.5% and 29.2%, respectively.

## Figure 2. Percentage of National Comprehensive Cancer Control Program award recipients that conducted nutrition and physical activity activities and prevalence of obesity in 2017–2020, by state.

Circles on the maps indicate which awardees conducted activities. Appendix Table 2 presents detailed prevalence data.

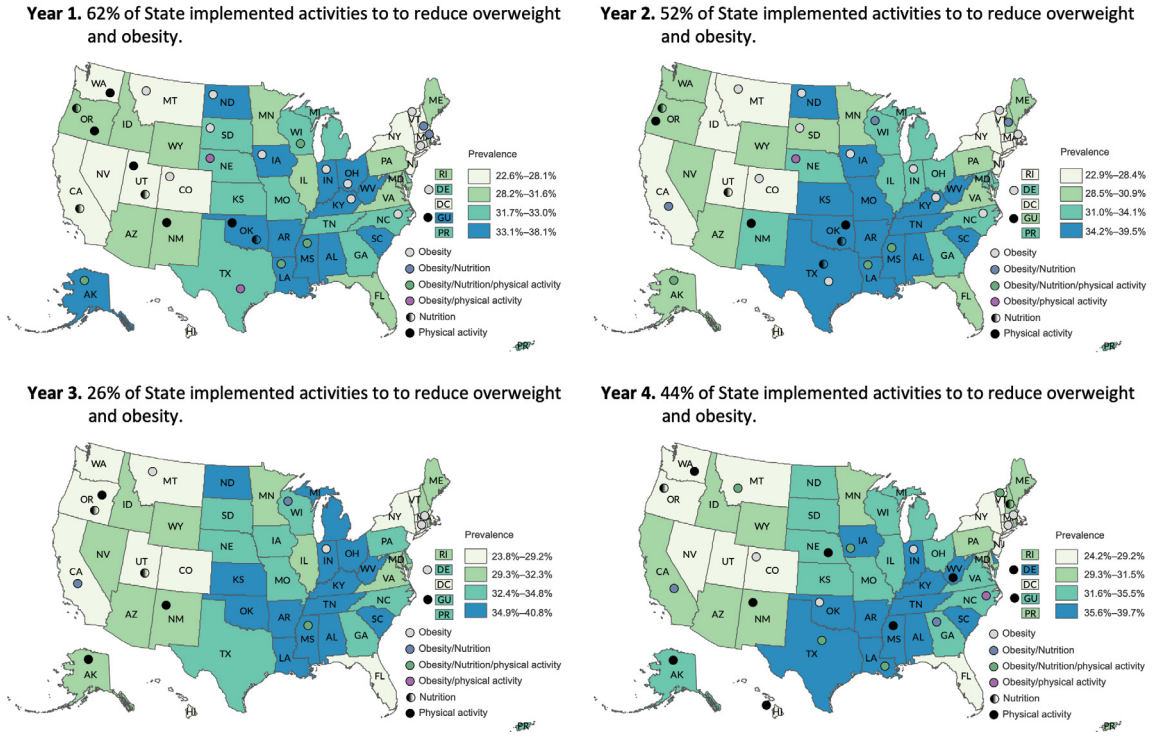



Figure 2. Prevalence of overweight and obesity in each state and the states that carried out obesity prevalence reduction activities for Years 1–4. Activities included nutrition and physical activity components. The color scale shows the prevalence of cigarette smoking grouped by quartiles. The states that carried out activities to reduce obesity prevalence are indicated by the circles. The overweight and obesity reduction activities included nutrition and physical related activities. Some states carried out one activity while others carried out more than one, as indicated by the differently colored circles.

# HPV Prevalence and Vaccination-Related Activities

The human papillomavirus (HPV) can cause multiple forms of cancer.[9] Nearly all cervical cancers are caused by HPV.[10] In addition to cervical cancer, HPV is associated with high rates of several other types of cancer, including 91% of anal cancers, 70% of oropharyngeal cancers, 63% of penile cancers, 75% of vaginal cancers, and 69% of vulvar cancers.[9] A 2023 report published by the CDC showed every year, about 46,711 instances of cancer in men and women in the United States were linked to HPV.[11] Vaccination against HPV can prevent many of these cancers by preventing the infections that lead to their development.[12] The percentage of award recipients that participated in HPV vaccination activities increased from 40% in Year 1 to 68% in Year 5 (Figure 3); the number of activities ranged from one to 16 per year.

## Figure 3. Percentage of National Comprehensive Cancer Control Program award recipients that conducted HPV vaccination activities and prevalence of vaccination among adolescents in 2017–2020, by state.

Circles on the maps indicate which award recipients conducted activities. Appendix Table 3 shows detailed incidence data.

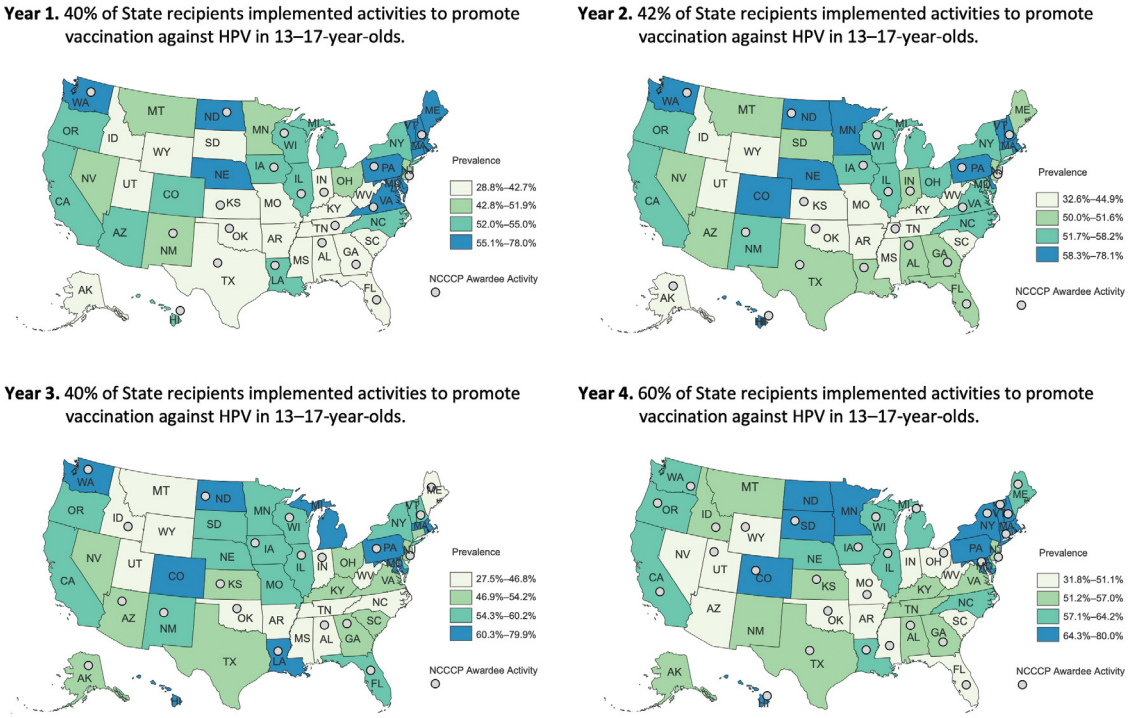



Figure 3. Human papillomavirus (HPV) vaccination rates in each state and the states that carried out vaccination-related activities. The color scale shows the percentage rate of receiving ≥3 HPV vaccinations grouped by quartiles. The states that conducted HPV vaccination-related activities are indicated by black circles.

# Summary

Cancer risk can be affected by modifiable factors, including cessation of tobacco use, maintaining a healthy weight, and immunization against HPV. Most of the NCCCP award recipients in states with a higher prevalence of adult cigarette smoking reported engaging in more tobacco-related activities during 2017 to 2022. The same pattern was identified for behaviors related to nutrition and physical activity and HPV vaccination. In general, award recipients in states that have a lower incidence of healthy behaviors tend to choose initiatives that place an emphasis on primary prevention.

# Early Detection and Treatment: Cancer Screening

Screening patients early enough to detect cancer during its earliest stages when it is most treatable is the goal of early diagnosis interventions. Screening can also prevent cervical and colorectal cancers through identification of precancerous cells. Early diagnosis is especially important for people with cancer of the breast, cervix, colon and rectum, and lung.[8] Screening identifies individuals with cancer before any symptoms appear. Nonetheless, the use of potentially lifesaving prevention and early detection techniques is strongly influenced by individual behaviors and social, economic, and public policy variables. NCCCP award recipients are expected to support CDC-funded program award recipients like the National Breast and Cervical Cancer Early Detection Program and the Colorectal Cancer Control Program award recipients at the local level to benefit populations with limited access to health care.

From 2017 to 2022, award recipients reported on their work connecting local populations with cancer screening and treatment. They focused on addressing colorectal, cervical, and female breast cancer. In the 2017 to 2018 program year, 25% percent of comprehensive cancer control plans covered these high-burden cancers in their program objectives; this percentage increased to 27% in the 2020–2021 program year (Table 1). This section provides state-specific data on the prevalence of colorectal, cervical, and breast cancer screenings.

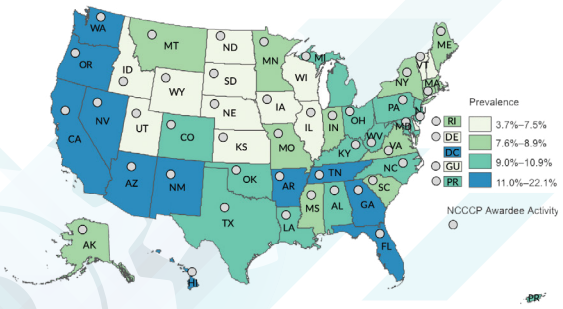
## Colorectal Cancer Prevalence and Early Detection and Screening Activities

Colorectal cancer is the fourth most frequent cancer in both men and women in the United States.[13] Individuals can reduce their risk of colorectal cancer by increasing their physical activity, maintaining a healthy weight, and adhering to national screening recommendations. Compared to the rest of the United States, the western states have the highest prevalence of colorectal cancer (Figure 4). Cancer coalitions have worked for several years to lessen the impact of colorectal cancer in local communities across the United States. In 2018, 94% of the award recipients carried out activities connected to colorectal cancer early detection and screening; 100% of west coast award recipients implemented colorectal early detection and screening activities. In 2020, the overall percentage of award recipients carrying out activities decreased to 72%, but the west coast states were able to maintain their colorectal cancer activities at 100%. The overall decline of colorectal cancer activities could be due to the COVID-19 pandemic. The western states award recipients are dispersed over multiple regions. California had the highest prevalence of colorectal cancer in 2018 at 22.1%. The program started implementing screening activities with a baseline of 71.40% and met its target goal of 75% by 2020.

### Figure 4. Percentage of National Comprehensive Cancer Control Program award recipients that conducted colorectal cancer activities and prevalence of screening in 2018–2020, by state.

Circles on the maps indicate which awardees conducted activities. For detailed incidence data, see Appendix Table 4.

**Year 2.** 94% of State recipients, Guam, and Puerto Rico implemented colorectal cancer screening and early detection activities.




**Year 4.** 72% of State recipients and DC Washington implemented colorectal cancer screening and early detection activities.

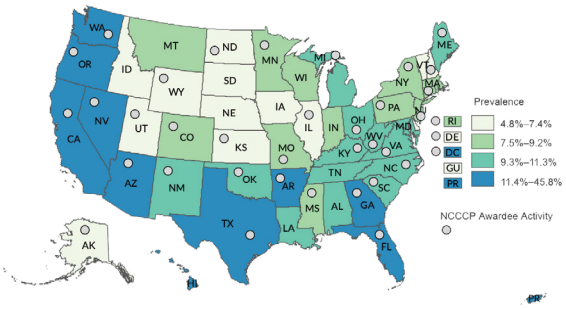


Figure 4. Colorectal cancer prevalence in each state and the states that carried out screening and early detection activities. The color scale shows the percentage prevalence of colorectal cancer grouped by quartiles. Award recipients that performed activities are indicated by the grey-colored circle.

## Cervical Cancer Prevalence and Early Detection and Screening Activities

Prevention and early detection measures such as HPV vaccine and the Papanicolaou (Pap) screening test have contributed to reducing cervical cancer incidence and mortality in the United States.[14] The risk of cervical cancer is increased by factors including cigarette smoking and exposure to specific HPV strains.[15] In 2018 cervical cancer screening prevalence was highest in Louisiana, Minnesota, Wisconsin, Maine, and New York (Figure 5). During the program years, these states carried out activities associated with cervical cancer screening. Most of these award recipients reside in the Northeast, Midwest, or South. The percentage of award recipients that used early cervical cancer detection and screening activities declined from 56% in 2018 to 34% in 2020. This decline could be due to several factors, including COVID-19 activity restrictions. In 2018, the prevalence of cervical cancer in Louisiana was 85.1%. The comprehensive cancer control program in Louisiana partnered with the community to improve clinic navigation to implement screening awareness activities. In the second year of setting up program activities, the prevalence of cervical cancer decreased to 78.1%.

### Figure 5. Percentage of National Comprehensive Cancer Control Program award recipients that conducted cervical cancer activities and prevalence of screening with Pap test in 2018 and 2020, by state.

Circles on the maps indicate which awardees conducted activities. Table 5 in the Appendix shows detailed incidence data.

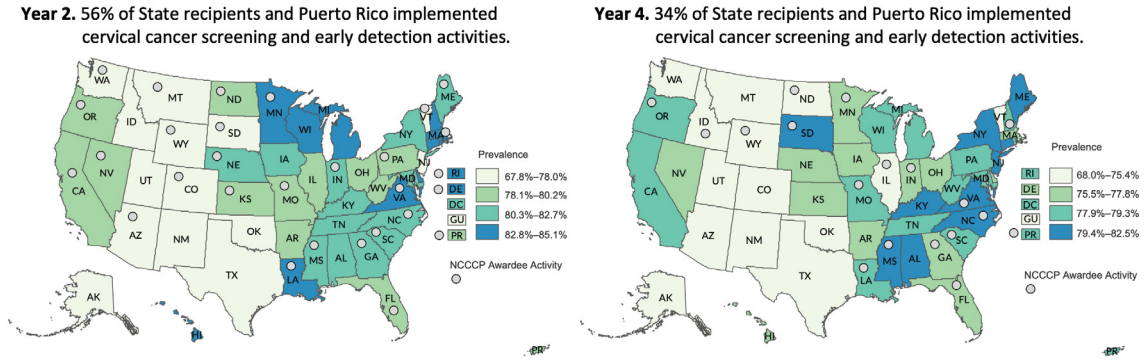



Figure 5. Cervical cancer screening prevalence in each state and the states that used screening and early detection activities. The color gradient shows cervical cancer prevalence grouped by quartiles. Award recipients that used the early detection and screening activities are indicated by the grey-colored circle.

## Breast Cancer Prevalence and Early Detection and Screening Activities

Breast cancer is one of the most prevalent types of cancer diagnosed in American women. Multiple factors, from heredity to environment, influence the risk of getting breast cancer. By engaging in healthy behaviors, such as physical activity and avoiding alcohol, women can reduce their risk of breast cancer.[14] They can also have routine screenings to detect cancer at an earlier, potentially more treatable stage. The percentage of award recipients that participated in breast cancer screening and early detection activities declined from 68% in 2017 to 46% in 2020 (Figure 6). Florida and California aimed to increase the number of women receiving routine breast cancer screening. Both worked with multiple counties to provide lower-income communities with screening services; both states saw a decline in breast cancer prevalence from the year 2018 to the year 2020 (Figure 6).

## Figure 6. Percentage of National Comprehensive Cancer Control Program award recipients that conducted breast cancer activities and prevalence of screening with mammogram in 2018 and 2020, by state.

Circles on the maps indicate which awardees conducted activities. Table 6 in the Appendix shows detailed incidence data.

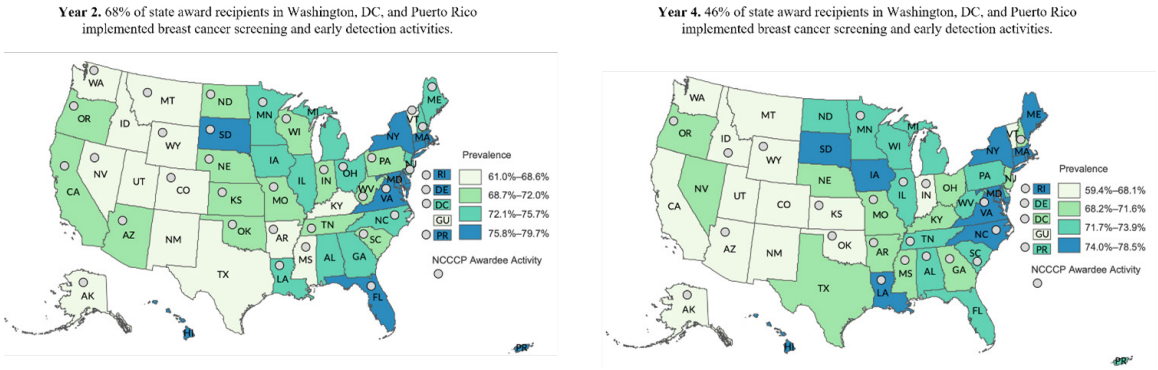



Figure 6. Breast cancer screening prevalence in each state and the states that used screening and early detection activities. The color gradient shows breast cancer prevalence grouped by quartile. Award recipients that performed activities are indicated by the grey-colored circle.

## Summary

NCCCP award recipients have prioritized and will continue to prioritize the use of evidence-based techniques to reduce cancers such as colorectal, cervical, and breast cancer. From 2017–2022, recipients of NCCCP awards participated in initiatives that expanded people's knowledge of and access to the various screening and treatment options suggested for cancer patients.

# Cancer Survivorship

The aging and growth of the population, as well as improvements in cancer survival rates, are all factors that are contributing to an increase in the number of people in the United States who have a history of cancer.[16] As of January 2022, it is estimated that there are 18.1 million cancer survivors in the United States, or approximately 5.4% of the population. The number of cancer survivors is projected to increase by 24.4%, to 22.5 million, by 2032.[17] Cancer survivorship begins from the time of diagnosis and continues after treatment has ended. Those who have been diagnosed with cancer as well as their families, friends, and caregivers are included in this process. Due to breakthroughs in cancer detection, diagnosis, therapy, and follow-up, more people are surviving the disease than ever before.

Since 2010, one of the main focus areas of the NCCCP has been the identification of initiatives and tactics that would improve cancer survivors' quality of life. The award recipients of this program are strongly urged by CDC to participate in local activities within their communities. The activities expand survivors' access to evidence-based programs that help them modify their lifestyles and support networks. In addition, CDC supported cancer survivorship efforts through the establishment of supplemental funding for activities including surveillance, educational programs, and patient navigation systems during Program Years 2–5. Regarding complete cancer control strategies, 18.5% of award recipients in 2017 had survivorship objectives, compared to 55.3% in 2022.

Developing programs, policies, and infrastructure to help cancer survivors was the primary focus of the activities that were carried out to support objectives that included:

- Providing survivors, caregivers, and health care professionals with information, education, and training.
- Enhancing cancer survivors' access to care and services of the highest quality.
- Utilizing monitoring and applied research to determine the requirements of cancer survivors.

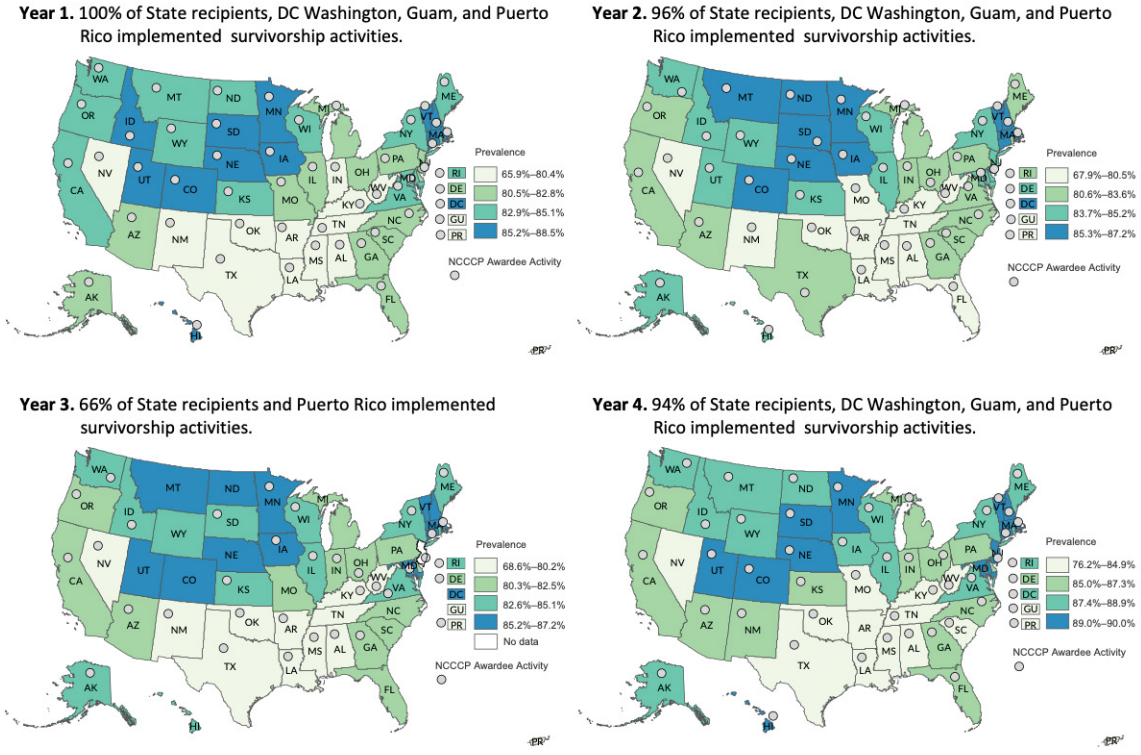
Most of the award recipients focused their efforts on designing and carrying out policies and programs to better assist cancer survivors.

## Survivorship Activities and Reported Health Status Among Cancer Survivors

Activities relating to cancer survivorship were integrated into almost all programs. Comprehensive cancer control programs worked to increase the proportion of cancer survivors who receive survivorship care plans as well as palliative care. In 2022, the program also carried out activities to lower the percentage of adult cancer survivors who reported having days of poor physical or mental health.

### Figure 7. Percentage of National Comprehensive Cancer Control Program award recipients that conducted survivorship activities and prevalence of good, better, or excellent health among cancer survivors in 2017–2020, by state.

Circles on the maps indicate which awardees conducted activities. Table 7 in the Appendix shows detailed incidence data.




Prevalence of good, better, or excellent health among cancer survivors in each state and the states that implemented cancer survivorship activities. The color scale shows the prevalence of good, better, and excellent health grouped by quartiles. States that implemented survivorship activities are indicated by circles.

## Summary

The number of cancer survivors is anticipated to rise as early detection and treatment options in the United States continue to advance. NCCCP award recipients during 2017 to 2022 recognized the growing needs of cancer survivors and increased their outreach efforts, which included increasing enhancing access to survivorship resources and increasing the number of survivors who successfully completed local survivorship programs.

# Health Equity

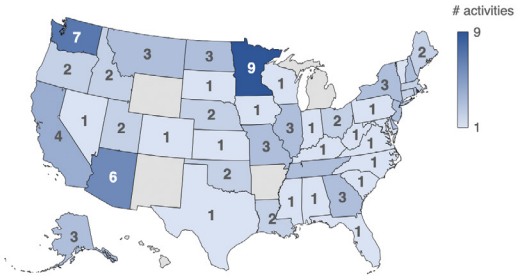
Health equity is the state in which everyone has a fair and just opportunity to attain their highest level of health. Achieving this requires ongoing societal efforts to address historical and contemporary injustices; overcome economic, social, and other obstacles to health and health care; and eliminate preventable health disparities.[1,2] To achieve health equity, changes to the systems and policies that have resulted in the generational injustices that give rise to racial and ethnic health disparities are needed.

Ensuring communities with poorer cancer health outcomes have the best potential to improve health is a cross-cutting issue. Although many factors contribute to cancer health equity, having a regular health care provider is a significant predictor of access to care since it facilitates timely cancer treatment. The percentage of adults with a primary care physician or other regular health care provider in the United States varies greatly. People in the West and sections of the Midwest and South, for example, report having a regular provider less frequently than those in other areas. Overall, relatively few NCCCP participants report interventions to increase health equity (Figure 8), and there is room for improvement in this domain. The observed decline in states that implemented activities may be due to programmatic and contextual factors. For example, health equity concepts and efforts were applied in all program areas, making it unnecessary to report these activities separately; tools used to monitor and report program efforts changed, which affected data abstraction from progress reports; and program efforts were affected by the COVID-19 public health emergency. While this trend reflects a decrease in the number of states reporting implementing specific health equity activities, an overall increase in health equity activities reported across all states was achieved.

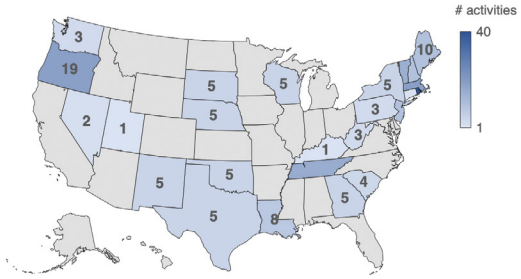
## Figure 8. Health equity activities implemented by award recipients, by state.

Circles on the maps indicate which awardees conducted activities. Appendix Table 8 shows detailed incidence data.

**Year 1.** Forty-five States implemented a total of 80 activities.




**Year 5.** Twenty-five States implemented a total of 94 activities.




Health equity activities are implemented by states. The color scale corresponds to the number of activities in each state. Health equity was categorized using a specific list of indicators and strategies. In Year 5 CDC changed the way it collected health equity data, and as a result Not all health equity activities were captured. States colored gray may have undertaken health equity activities that were Not captured for this report.

# Conclusion

NCCCP award recipients used CDC funding during 2017 to 2022 to carry out initiatives to lower cancer incidence and mortality rates in their local areas. The NCCCP's top priorities, primary prevention, early diagnosis and treatment, and cancer survivorship, were the focus of these initiatives. The number of primary prevention-focused initiatives increased during this time, particularly those that dealt with tobacco-related activities, obesity, and HPV immunization. For NCCCP award recipients, common areas of focus included:

- Tobacco related activities
- Obesity reduction
- HPV vaccination
- Colorectal cancer screening
- Cervical cancer screening
- Breast cancer screening
- Survivorship
- Health equity

Overall, award recipients achieved Notable advancements in the use of EBIs to prevent and manage cancer. Their efforts cannot be linked directly to a national increase in cancer screening or reduction in cancer incidence or deaths. But this report shows that NCCCP award recipients are making use of cancer monitoring data to lessen the effect of preventable cancers in their communities. Future Notice of funding opportunity announcements might incorporate measures of how much of the favorable changes in target outcomes can be attributed to putting the program into action.

This trends report summarizes key outcomes of DP17-1701 and NCCCP award recipients' efforts to carry out interventions that addressed all NCCCP priorities. The goal of the DP17-1701 was to decrease cancer incidence and mortality by focusing on populations with increased cancer by seeking to decrease health disparities. The findings from this report suggests advancements in the use of EBIs to prevent and manage cancer. Building upon program results of DP17-1702, DP22-2202 continues to focus on decreasing cancer incidence and mortality. The approach of DP22-2202 is to guide collaborative planning and implementation for evidence-based cancer surveillance, prevention, and control strategies in communities that improve provision of clinical preventive services and cancer survivorship. This collaboration between public health, communities and health care systems provides a framework to enhance the scope and quality of efforts by NCCCP award recipients.

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# Appendix—National Surveillance and NCCCP Data

## Appendix Table 1. Percentage of National Comprehensive Cancer Control Program award recipients that conducted tobacco-related activities and prevalence of adult cigarette smoking in 2017–2020, by state.

| State | Percentage of Tobacco in 2017 | NCCCP Awardee Activity in 2017 | Percentage of Tobacco in 2018 | NCCCP Awardee Activity in 2018 | Percentage of Tobacco in 2019 | NCCCP Awardee Activity in 2019 | Percentage of Tobacco in 2020 | NCCCP Awardee Activity in 2020 |
|---|---|---|---|---|---|---|---|---|
| Alabama | 20.9 | Yes | 19.2 | Yes | 20.3 | Yes | 18.5 | Yes |
| Alaska | 21 | Yes | 19.1 | Yes | 17.4 | No | 18 | No |
| Arizona | 15.6 | No | 14 | No | 14.9 | No | 13.1 | No |
| Arkansas | 22.3 | No | 22.7 | No | 20.2 | No | 20.5 | No |
| California | 11.3 | No | 11.2 | No | 10 | No | 8.9 | Yes |
| Colorado | 14.6 | No | 14.5 | No | 13.5 | No | 12.4 | No |
| Connecticut | 12.7 | No | 12.2 | No | 12.1 | No | 11.8 | No |
| Delaware | 17 | No | 16.5 | No | 15.9 | No | 15.1 | No |
| District of Columbia | 14.4 | No | 13.8 | No | 12.7 | No | 11.3 | No |
| Florida | 16.1 | Yes | 14.5 | Yes | 14.8 | Yes | 14.7 | No |
| Georgia | 17.5 | Yes | 16.1 | Yes | 16.3 | No | 15.8 | No |
| Guam | 26.4 | No | 21.9 | No | 23.4 | No | 20 | No |
| Hawaii | 12.8 | No | 13.4 | No | 12.3 | No | 11.6 | No |
| Idaho | 14.4 | No | 14.7 | No | 15.3 | No | 13.6 | No |
| Illinois | 15.5 | No | 15.5 | No | 14.5 | No | 12.7 | No |
| Indiana | 21.8 | Yes | 21.1 | Yes | 19.2 | No | 19.4 | No |
| Iowa | 17.1 | No | 16.6 | No | 16.4 | No | 15.8 | No |
| Kansas | 17.4 | Yes | 17.3 | Yes | 16.2 | Yes | 16.6 | No |
| Kentucky | 24.6 | No | 23.4 | No | 23.6 | No | 21.4 | No |
| Louisiana | 23.1 | No | 20.5 | No | 21.9 | No | 18.3 | No |
| Maine | 17.3 | No | 17.8 | No | 17.6 | No | 16.5 | No |
| Maryland | 13.9 | No | 12.6 | No | 12.7 | No | 10.9 | No |
| Massachusetts | 13.7 | No | 13.4 | No | 12.1 | No | 11.1 | No |
| Michigan | 19.3 | Yes | 18.9 | Yes | 18.7 | No | 18.4 | No |
| Mississippi | 22.2 | No | 20.5 | No | 20.4 | No | 20.1 | No |
| Missouri | 20.8 | No | 19.4 | No | 19.6 | No | 17.8 | No |
| Montana | 17.2 | Yes | 18 | Yes | 16.6 | No | 16.4 | Yes |
| Nebraska | 15.4 | No | 16 | No | 14.7 | No | 13.9 | No |
| Nevada | 17.6 | No | 15.7 | No | 15.7 | No | 14.2 | No |
| New Hampshire | 15.7 | No | 15.6 | No | — | No | 13.9 | No |
| New Jersey | 13.7 | No | 13.1 | No | 15.9 | No | 10.8 | No |
| New Mexico | 17.5 | No | 15.2 | No | 16 | No | 16.1 | No |
| New York | 14.1 | No | 12.8 | No | 12.7 | No | 12 | No |
| North Carolina | 17.2 | No | 17.4 | No | 18.5 | No | 16.5 | Yes |
| North Dakota | 18.3 | No | 19.1 | No | 17 | No | 17.4 | No |
| Ohio | 21.1 | No | 20.5 | Yes | 20.8 | No | 19.3 | No |

*continued on next page*

*Appendix Table 1. continued*

| State | Percentage of Tobacco in 2017 | NCCCP Awardee Activity in 2017 | Percentage of Tobacco in 2018 | NCCCP Awardee Activity in 2018 | Percentage of Tobacco in 2019 | NCCCP Awardee Activity in 2019 | Percentage of Tobacco in 2020 | NCCCP Awardee Activity in 2020 |
|---|---|---|---|---|---|---|---|---|
| Oklahoma | 20.2 | Yes | 19.7 | Yes | 18.9 | Yes | 19.1 | No |
| Oregon | 16.1 | Yes | 15.6 | Yes | 14.5 | Yes | 13.4 | No |
| Pennsylvania | 18.8 | No | 17 | No | 17.3 | No | 15.8 | No |
| Puerto Rico | 11.3 | No | 10 | No | 9.6 | No | 9.9 | No |
| Rhode Island | 15 | No | 14.6 | No | 13.3 | No | 13.5 | No |
| South Carolina | 18.8 | No | 18 | No | 17.6 | No | 18.1 | No |
| South Dakota | 19.3 | No | 19 | No | 18.3 | No | 17.8 | No |
| Tennessee | 22.6 | Yes | 20.7 | Yes | 19.9 | No | 19.5 | No |
| Texas | 15.7 | No | 14.4 | No | 14.7 | No | 13.2 | No |
| Utah | 8.9 | No | 9 | No | 7.9 | No | 8.2 | No |
| Vermont | 15.8 | No | 13.7 | No | 15.1 | Yes | 13.3 | No |
| Virginia | 16.4 | No | 15 | No | 14 | No | 13.6 | No |
| Washington | 13.5 | Yes | 12 | Yes | 12.7 | Yes | 11.5 | Yes |
| West Virginia | 26 | No | 25.3 | No | 23.8 | No | 22.6 | No |
| Wisconsin | 16 | Yes | 16.4 | Yes | 15.4 | No | 15.5 | Yes |
| Wyoming | 18.7 | No | 18.8 | No | 18.4 | No | 18.5 | No |

◀ *Return to Figure 1*

## Appendix Table 2. Percentage of National Comprehensive Cancer Control Program award recipients that conducted nutrition and physical activity activities and prevalence of obesity in 2017–2020, by state.

| State | Percentage of Obesity in 2017 | NCCCP Awardee Activity in 2017 | Percentage of Obesity in 2018 | NCCCP Awardee Activity in 2018 | Percentage of Obesity in 2019 | NCCCP Awardee Activity in 2019 | Percentage of Obesity in 2020 | NCCCP Awardee Activity in 2020 |
|---|---|---|---|---|---|---|---|---|
| Alabama | 36.3 | No | 36.2 | No | 36.1 | No | 39 | No |
| Alaska | 34.2 | Yes | 29.5 | Yes | 30.5 | Yes | 31.9 | No |
| Arizona | 29.5 | No | 29.5 | No | 31.4 | No | 30.9 | No |
| Arkansas | 35 | No | 37.1 | No | 37.4 | No | 36.4 | No |
| California | 25.1 | Yes | 25.8 | Yes | 26.2 | Yes | 30.2 | Yes |
| Colorado | 22.6 | Yes | 23 | Yes | 23.8 | No | 24.2 | Yes |
| Connecticut | 26.9 | No | 27.4 | No | 29.1 | No | 29.2 | No |
| Delaware | 31.8 | Yes | 33.5 | Yes | 34.4 | Yes | 36.5 | No |
| District of Columbia | 22.9 | No | 24.7 | No | 23.8 | No | 24.3 | No |
| Florida | 28.4 | No | 30.7 | No | 27 | No | 28.4 | No |
| Georgia | 31.6 | No | 32.5 | No | 33.1 | No | 34.2 | Yes |
| Guam | 34.3 | No | 29.8 | No | 33.6 | No | 34.4 | No |
| Hawaii | 23.8 | No | 24.9 | No | 25 | No | 24.5 | No |
| Idaho | 29.3 | No | 28.4 | No | 29.5 | No | 31.1 | No |
| Illinois | 31.1 | No | 31.8 | No | 31.6 | No | 32.4 | No |
| Indiana | 33.6 | Yes | 34.1 | Yes | 35.3 | Yes | 36.8 | No |

*continued on next page*

*Appendix Table 2 continued*

| State | Percentage of Obesity in 2017 | NCCCP Awardee Activity in 2017 | Percentage of Obesity in 2018 | NCCCP Awardee Activity in 2018 | Percentage of Obesity in 2019 | NCCCP Awardee Activity in 2019 | Percentage of Obesity in 2020 | NCCCP Awardee Activity in 2020 |
|---|---|---|---|---|---|---|---|---|
| Iowa | 36.4 | Yes | 35.3 | Yes | 33.9 | No | 36.5 | Yes |
| Kansas | 32.4 | No | 34.4 | No | 35.2 | No | 35.3 | No |
| Kentucky | 34.3 | Yes | 36.6 | Yes | 36.5 | No | 36.6 | No |
| Louisiana | 36.2 | Yes | 36.8 | Yes | 35.9 | No | 38.1 | Yes |
| Maine | 29.1 | No | 30.4 | No | 31.7 | No | 31 | No |
| Maryland | 31.3 | No | 30.9 | No | 32.3 | No | 31 | No |
| Massachusetts | 25.9 | No | 25.7 | No | 25.2 | Yes | 24.4 | Yes |
| Michigan | 32.3 | No | 33 | No | 36 | No | 35.2 | No |
| Minnesota | 28.4 | No | 30.1 | No | 30.1 | No | 30.7 | No |
| Mississippi | 37.3 | Yes | 39.5 | Yes | 40.8 | Yes | 39.7 | Yes |
| Missouri | 32.5 | No | 35 | No | 34.8 | No | 34 | No |
| Montana | 25.3 | Yes | 26.9 | Yes | 28.3 | Yes | 28.5 | Yes |
| Nebraska | 32.8 | No | 34.1 | No | 34.1 | No | 34 | No |
| Nevada | 26.7 | No | 29.5 | No | 30.6 | No | 28.7 | Yes |
| New Hampshire | 28.1 | No | 29.6 | No | 31.8 | No | 29.9 | No |
| New Jersey | 27.3 | No | 25.7 | No | — | Yes | 27.7 | No |
| New Mexico | 28.4 | Yes | 32.3 | Yes | 31.7 | Yes | 30.9 | Yes |
| New York | 25.7 | No | 27.6 | No | 27.1 | No | 26.3 | No |
| North Carolina | 32.1 | Yes | 33 | Yes | 34 | No | 33.6 | Yes |
| North Dakota | 33.2 | Yes | 35.1 | Yes | 34.8 | No | 33.1 | No |
| Ohio | 33.8 | Yes | 34 | No | 34.8 | No | 35.5 | Yes |
| Oklahoma | 36.5 | Yes | 34.8 | Yes | 36.8 | No | 36.4 | Yes |
| Oregon | 29.4 | Yes | 29.9 | Yes | 29 | Yes | 28 | Yes |
| Pennsylvania | 31.6 | No | 30.9 | No | 33.2 | No | 31.5 | No |
| Puerto Rico | 32.9 | No | 32.9 | No | 32.5 | No | 31.4 | No |
| Rhode Island | 30 | No | 27.7 | No | 30 | No | 30.1 | No |
| South Carolina | 34.1 | No | 34.3 | No | 35.4 | No | 36.2 | No |
| South Dakota | 31.9 | Yes | 30.1 | Yes | 33 | No | 33.2 | No |
| Tennessee | 32.8 | No | 34.4 | No | 36.5 | No | 35.6 | No |
| Texas | 33 | Yes | 34.8 | Yes | 34 | No | 35.8 | No |
| Utah | 25.3 | Yes | 27.8 | Yes | 29.2 | Yes | 28.6 | No |
| Vermont | 27.6 | No | 27.5 | No | 26.6 | No | 26.2 | Yes |
| Virginia | 30.1 | No | 30.4 | No | 31.9 | No | 32.2 | No |
| Washington | 27.7 | Yes | 28.7 | Yes | 28.3 | No | 28 | Yes |
| West Virginia | 38.1 | No | 39.5 | No | 39.7 | No | 39.1 | Yes |
| Wisconsin | 32 | No | 32 | No | 34.2 | Yes | 32.3 | No |
| Wyoming | 28.8 | No | 29 | No | 29.7 | No | 30.7 | No |

◀ Return to Figure 2

## Appendix Table 3. Percentage of National Comprehensive Cancer Control Program award recipients that conducted HPV vaccination activities and prevalence of vaccination among adolescents in 2017–2020, by state.

| State | Percentage of HPV vaccination rates in 2017 | NCCCP Award recipients Activity in 2017 | Percentage of HPV vaccination rates in 2018 | NCCCP Award recipients Activity in 2018 | Percentage of HPV vaccination rates in 2019 | NCCCP Award recipients Activity in 2019 | Percentage of HPV vaccination rates in 2020 | NCCCP Award recipients Activity in 2020 |
|---|---|---|---|---|---|---|---|---|
| Alabama | 40.3 | Yes | 50.2 | Yes | 47.3 | Yes | 52.9 | Yes |
| Alaska | 42.6 | No | 44.1 | Yes | 52.6 | Yes | 54.9 | No |
| Arizona | 53 | No | 50.7 | No | 56.9 | Yes | 51.4 | No |
| Arkansas | 35.2 | No | 42.6 | No | 50.5 | No | 49.6 | No |
| California | 53.4 | No | 52.6 | No | 56.4 | No | 62.3 | Yes |
| Colorado | 53.8 | No | 62.5 | No | 63.5 | No | 66.4 | Yes |
| Connecticut | 58 | No | 53.1 | No | 53.8 | No | 66.9 | No |
| Delaware | 58.1 | No | 58.4 | No | 59.2 | No | 63.2 | No |
| District of Columbia | 78 | No | 71.3 | No | 75.5 | No | 72.3 | No |
| Florida | 42.3 | Yes | 46.5 | Yes | 56 | Yes | 51.6 | Yes |
| Georgia | 45.7 | Yes | 49.6 | Yes | 49.7 | Yes | 54.9 | Yes |
| Guam | 42.7 | No | 45.6 | No | 43.8 | No | 47.4 | No |
| Hawaii | 54.7 | Yes | 60.7 | Yes | 66 | No | 73.9 | Yes |
| Idaho | 44.1 | No | 43.4 | No | 44.1 | Yes | 54.5 | Yes |
| IlliNois | 50.4 | Yes | 53.4 | Yes | 54.9 | Yes | 63.1 | Yes |
| Indiana | 40.8 | Yes | 48.9 | Yes | 41.2 | Yes | 53.4 | No |
| Iowa | 53.7 | Yes | 55.1 | Yes | 60.9 | Yes | 60.3 | Yes |
| Kansas | 34.4 | Yes | 40.7 | Yes | 49.5 | Yes | 53.3 | Yes |
| Kentucky | 37.7 | No | 42.6 | Yes | 54.9 | No | 55.7 | No |
| Louisiana | 52.9 | Yes | 46.7 | Yes | 59.5 | Yes | 60.4 | Yes |
| Maine | 59.2 | No | 50.7 | No | 52.6 | Yes | 63.5 | Yes |
| Maryland | 52.9 | No | 58.1 | No | 68.9 | No | 66.8 | Yes |
| Massachusetts | 65.5 | No | 68.7 | No | 74.3 | Yes | 73.4 | No |
| Michigan | 54.3 | No | 55 | No | 59.4 | No | 61.3 | No |
| Minnesota | 46.9 | No | 58.8 | No | 56.8 | No | 69.2 | Yes |
| Mississippi | 28.8 | No | 32.6 | No | 30.5 | No | 31.9 | Yes |
| Missouri | 39.6 | No | 42.1 | No | 54.3 | No | 53.6 | No |
| Montana | 49.1 | No | 48.4 | No | 46.7 | No | 54.4 | Yes |
| Nebraska | 58.3 | No | 62.7 | No | 60.5 | No | 64.8 | No |
| Nevada | 49 | No | 51.1 | No | 52.9 | No | 50.1 | No |
| New Hampshire | 59.9 | Yes | 67.4 | No | 63.2 | No | 68.8 | No |
| New Jersey | 49.6 | Yes | 48.5 | Yes | 51.4 | Yes | 59.7 | Yes |
| New Mexico | 48.3 | Yes | 57 | Yes | 59.8 | Yes | 59.2 | No |
| New York | 53.6 | No | 57.3 | No | 57 | No | 68.1 | Yes |
| North Carolina | 51.9 | No | 52.1 | No | 49.5 | No | 60.7 | No |
| North Dakota | 57.8 | Yes | 63.6 | Yes | 76.9 | Yes | 70.3 | No |
| Ohio | 47 | No | 58.2 | No | 49.6 | No | 53.2 | Yes |

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*Table 3. continued*

| State | Percentage of HPV vaccination rates in 2017 | NCCCP Award recipients Activity in 2017 | Percentage of HPV vaccination rates in 2018 | NCCCP Award recipients Activity in 2018 | Percentage of HPV vaccination rates in 2019 | NCCCP Award recipients Activity in 2019 | Percentage of HPV vaccination rates in 2020 | NCCCP Award recipients Activity in 2020 |
|---|---|---|---|---|---|---|---|---|
| Oklahoma | 41.4 | Yes | 37.9 | Yes | 41.8 | No | 45.8 | Yes |
| Oregon | 54.8 | No | 58.2 | No | 60.8 | No | 61.6 | Yes |
| Pennsylvania | 52.5 | Yes | 54.1 | Yes | 60.1 | Yes | 67.1 | No |
| Rhode Island | 77.7 | No | 78.1 | Yes | 78.9 | Yes | 83 | Yes |
| South Carolina | 42.7 | No | 41.2 | No | 53 | No | 47 | No |
| South Dakota | 44.8 | No | 49.5 | No | 61.2 | No | 71.5 | Yes |
| Tennessee | 39.2 | Yes | 44.4 | Yes | 43 | No | 52.9 | No |
| Texas | 39.7 | Yes | 43.5 | Yes | 48.4 | No | 54.9 | Yes |
| Utah | 37.4 | No | 43.2 | No | 44.6 | No | 45 | Yes |
| Vermont | 64.5 | No | 62 | No | 63.6 | No | 70.5 | Yes |
| Virginia | 59 | Yes | 54.9 | Yes | 55.2 | No | 56.4 | Yes |
| Washington | 55.2 | Yes | 51.6 | Yes | 53.3 | Yes | 59 | Yes |
| West Virginia | 43.9 | No | 42.9 | No | 47.4 | No | 43.4 | No |
| Wisconsin | 52.3 | Yes | 55.7 | Yes | 60.5 | Yes | 61.5 | Yes |
| Wyoming | 30.9 | No | 42 | No | 41.5 | No | 44.8 | Yes |

◀ *Return to Figure 3*

## Appendix Table 4. Percentage of National Comprehensive Cancer Control Program award recipients that conducted colorectal cancer activities and prevalence of screening in 2018–2020, by state.

| State | Percentage of Colorectal in 2018 | NCCCP Award recipients Activity in 2018 | Percentage of Colorectal in 2020 | NCCCP Award recipients Activity in 2020 |
|---|---|---|---|---|
| Alabama | 9.5 | Yes | 10.1 | No |
| Alaska | 8.2 | Yes | 6.9 | Yes |
| Arizona | 12.8 | Yes | 12.6 | Yes |
| Arkansas | 12.6 | Yes | 13.6 | Yes |
| California | 22.1 | Yes | 21.3 | Yes |
| Colorado | 9.1 | Yes | 9.2 | Yes |
| Connecticut | 8.1 | Yes | 7.5 | Yes |
| Delaware | 6.3 | Yes | 6 | Yes |
| Washington, D.C. | 14.2 | No | 13.4 | Yes |
| Florida | 17.3 | Yes | 19.8 | Yes |
| Georgia | 13.5 | Yes | 12 | Yes |
| Guam | 4.7 | Yes | 7.2 | No |
| Hawaii | 21.7 | Yes | 21 | No |
| Idaho | 6.2 | Yes | 7.4 | No |
| Illinois | 7.5 | Yes | 6.5 | Yes |
| Indiana | 8.8 | Yes | 8.9 | No |
| Iowa | 6.4 | Yes | 7.2 | No |
| Kansas | 6.5 | No | 6.4 | Yes |

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*Table 4. continued*

| State | Percentage of Colorectal in 2018 | NCCCP Award recipients Activity in 2018 | Percentage of Colorectal in 2020 | NCCCP Award recipients Activity in 2020 |
|---|---|---|---|---|
| Kentucky | 9.3 | Yes | 10.4 | Yes |
| Louisiana | 10 | Yes | 9.8 | No |
| Maine | 8.8 | Yes | 9.7 | Yes |
| Maryland | 10.1 | Yes | 10.9 | No |
| Massachusetts | 7.6 | No | 8 | No |
| Michigan | 9.8 | Yes | 11 | Yes |
| Minnesota | 7.8 | Yes | 8.7 | Yes |
| Mississippi | 7.8 | Yes | 8.9 | Yes |
| Missouri | 8.3 | Yes | 8.9 | Yes |
| Montana | 7.8 | Yes | 9.2 | No |
| Nebraska | 6.5 | Yes | 6.1 | No |
| Nevada | 12.8 | Yes | 13.7 | Yes |
| New Hampshire | 6.1 | No | 5.1 | Yes |
| New Jersey | 9.5 | Yes | 8.8 | Yes |
| New Mexico | 12 | Yes | 10.4 | Yes |
| New York | 7.7 | Yes | 9.2 | Yes |
| North Carolina | 10.4 | Yes | 11.3 | Yes |
| North Dakota | 6.9 | Yes | 7.4 | Yes |
| Ohio | 10.8 | Yes | 10.1 | Yes |
| Oklahoma | 10.9 | Yes | 10.3 | Yes |
| Oregon | 14.1 | Yes | 14.6 | Yes |
| Pennsylvania | 9.5 | Yes | 8.8 | Yes |
| Puerto Rico | 9.5 | Yes | 45.8 | No |
| Rhode Island | 8.4 | Yes | 7.7 | Yes |
| South Carolina | 8.9 | Yes | 10.3 | Yes |
| South Dakota | 5.8 | Yes | 5.7 | No |
| Tennessee | 11.7 | Yes | 10 | No |
| Texas | 10.9 | Yes | 13.2 | Yes |
| Utah | 3.7 | Yes | 6.3 | Yes |
| Vermont | 5.6 | Yes | 6.4 | No |
| Virginia | 8.2 | Yes | 10.3 | Yes |
| Washington | 14.1 | Yes | 12.6 | Yes |
| West Virginia | 9.7 | Yes | 10 | Yes |
| Wisconsin | 6.6 | No | 8.3 | No |
| Wyoming | 4.9 | Yes | 4.8 | Yes |

◀ *Return to Figure 4*

## Appendix Table 5. Percentage of National Comprehensive Cancer Control Program award recipients that conducted cervical cancer activities and prevalence of screening with Pap test in 2018 and 2020, by state.

| State | Percentage of Cervical in 2018 | NCCCP Award Recipients Activity in 2018 | Percentage of Cervical in 2020 | NCCCP Award Recipients Activity in 2020 |
|---|---|---|---|---|
| Alabama | 80.2 | No | 79.5 | No |
| Alaska | 76.8 | No | 69.1 | No |
| Arizona | 78 | Yes | 74.4 | No |
| Arkansas | 80.1 | No | 76.9 | No |
| California | 79.3 | Yes | 79.3 | No |
| Colorado | 76.7 | Yes | 75.4 | No |
| Connecticut | 84 | No | 82.5 | No |
| Delaware | 83 | Yes | 77 | No |
| Washington, DC | 81.3 | No | 79.2 | No |
| Florida | 79.4 | Yes | 76.7 | Yes |
| Georgia | 81.8 | Yes | 76.5 | Yes |
| Guam | 67.8 | No | 68 | No |
| Hawaii | 82.7 | No | 76.2 | No |
| Idaho | 70.7 | No | 71.4 | Yes |
| Illinois | 79.3 | No | 72.1 | Yes |
| Indiana | 80.6 | Yes | 75.7 | Yes |
| Iowa | 81.1 | No | 77.1 | No |
| Kansas | 78.8 | Yes | 77.5 | No |
| Kentucky | 80.3 | No | 80.5 | No |
| Louisiana | 85.1 | Yes | 78.1 | Yes |
| Maine | 82.7 | Yes | 80.4 | No |
| Maryland | 81.3 | No | 79.3 | No |
| Massachusetts | 83.2 | Yes | 77.8 | No |
| Michigan | 83.5 | No | 79.2 | No |
| Minnesota | 82.8 | Yes | 77.2 | Yes |
| Mississippi | 82.3 | Yes | 82.3 | Yes |
| Missouri | 79.8 | Yes | 78.2 | Yes |
| Montana | 77 | Yes | 74.8 | No |
| Nebraska | 80.9 | Yes | 77.7 | No |
| Nevada | 78.9 | Yes | 76 | No |
| New Hampshire | 83.6 | No | 78.4 | Yes |
| New Jersey | 77.8 | No | 80.1 | No |
| New Mexico | 76.8 | No | 75.1 | No |
| New York | 80.9 | No | 79.8 | No |
| North Carolina | 82.7 | Yes | 81.9 | Yes |
| North Dakota | 78.4 | Yes | 75.2 | Yes |
| Ohio | 79.2 | No | 77.4 | No |
| Oklahoma | 76.1 | No | 72.7 | No |
| Oregon | 78.4 | Yes | 78.2 | Yes |
| Pennsylvania | 78.2 | Yes | 79 | No |

*continued on next page*

*Table 5. continued*

| State | Percentage of Cervical in 2018 | NCCCP Award Recipients Activity in 2018 | Percentage of Cervical in 2020 | NCCCP Award Recipients Activity in 2020 |
|---|---|---|---|---|
| Puerto Rico | 79.3 | Yes | 79.3 | Yes |
| Rhode Island | 83.4 | Yes | 79.3 | No |
| South Carolina | 80.8 | Yes | 78.6 | Yes |
| South Dakota | 74.2 | Yes | 80.2 | Yes |
| Tennessee | 81.5 | No | 78.1 | No |
| Texas | 77.1 | No | 75 | No |
| Utah | 72.5 | No | 70.1 | No |
| Vermont | 77.7 | Yes | 74.8 | No |
| Virginia | 84.3 | Yes | 79.8 | Yes |
| Washington | 76.6 | Yes | 72.8 | No |
| West Virginia | 80.2 | No | 79 | No |
| Wisconsin | 83.8 | No | 78.4 | No |
| American Samoa | — | Yes | — | Yes |
| Wyoming | 76.9 | Yes | 72 | Yes |
| Palau | — | Yes | — | Yes |

◀ *Return to Figure 5*

## Appendix Table 6. Percentage of National Comprehensive Cancer Control Program award recipients that conducted breast cancer activities and prevalence of screening with mammogram in 2018 and 2020, by state.

| State | Percentage of Mammogram in 2018 | NCCCP Award Recipients Activity in 2018 | Percentage of Mammogram in 2020 | NCCCP Award Recipients Activity in 2020 |
|---|---|---|---|---|
| Alabama | 74.3 | No | 72.4 | No |
| Alaska | 61 | Yes | 61.3 | No |
| Arizona | 69.2 | Yes | 67.9 | No |
| Arkansas | 66.6 | Yes | 69.4 | No |
| California | 72.1 | Yes | 66.2 | No |
| Colorado | 63.9 | Yes | 64.9 | No |
| Connecticut | 77.9 | No | 77.6 | No |
| Delaware | 78.9 | Yes | 73.2 | No |
| Washington, D.C. | 72.5 | Yes | 71.5 | No |
| Florida | 76.8 | Yes | 73.3 | Yes |
| Georgia | 74 | No | 70.7 | Yes |
| Guam | 65.7 | No | 59.4 | No |
| Hawaii | 79.7 | No | 78 | No |
| Idaho | 61.4 | No | 64.5 | Yes |
| Illinois | 73.1 | No | 71.8 | Yes |
| Indiana | 70.7 | Yes | 67 | Yes |
| Iowa | 74 | No | 74.8 | No |
| Kansas | 69.1 | Yes | 68.1 | No |
| Kentucky | 68.6 | No | 70.5 | No |
| Louisiana | 75.1 | Yes | 78.5 | Yes |

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*Table 6. continued*

| State | Percentage of Mammogram in 2018 | NCCCP Award Recipients Activity in 2018 | Percentage of Mammogram in 2020 | NCCCP Award Recipients Activity in 2020 |
|---|---|---|---|---|
| Maine | 74.9 | Yes | 75.9 | No |
| Maryland | 76.1 | No | 74.3 | No |
| Massachusetts | 79.1 | No | 77.5 | No |
| Michigan | 73.3 | No | 72.6 | No |
| Minnesota | 75.2 | Yes | 71.8 | No |
| Mississippi | 65.3 | Yes | 69.3 | Yes |
| Missouri | 69.4 | Yes | 69.8 | Yes |
| Montana | 67.3 | Yes | 65.6 | No |
| Nebraska | 69.3 | Yes | 68.5 | No |
| Nevada | 66.4 | Yes | 69.6 | No |
| New Hampshire | 75.7 | Yes | 71.6 | Yes |
| New Jersey | 75.5 | Yes | 71.4 | No |
| New Mexico | 64 | No | 65.2 | No |
| New York | 76 | No | 75.2 | No |
| North Carolina | 74.8 | Yes | 74.2 | Yes |
| North Dakota | 71.1 | Yes | 73.9 | Yes |
| Ohio | 73.8 | Yes | 70.6 | No |
| Oklahoma | 69.4 | Yes | 66.7 | No |
| Oregon | 71.4 | Yes | 70.6 | Yes |
| Pennsylvania | 72.1 | No | 72.7 | No |
| Puerto Rico | 79.5 | Yes | 72.2 | Yes |
| Rhode Island | 78.8 | Yes | 77.9 | No |
| South Carolina | 70.9 | Yes | 73.9 | Yes |
| South Dakota | 76 | Yes | 74.2 | Yes |
| Tennessee | 71.1 | Yes | 72 | No |
| Texas | 68.6 | No | 68.2 | No |
| Utah | 64 | No | 63.3 | No |
| Vermont | 68.2 | Yes | 66.7 | No |
| Virginia | 76.3 | Yes | 74.9 | Yes |
| Washington | 66.1 | No | 66.8 | No |
| West Virginia | 71.1 | Yes | 72.4 | No |
| Wisconsin | 71.8 | Yes | 73.3 | No |
| Wyoming | 61.6 | Yes | 62.2 | Yes |
| American Samoa | — | Yes | — | Yes |
| Palau | — | Yes | — | Yes |

◀ *Return to Figure 6*

## Appendix Table 7. Percentage of National Comprehensive Cancer Control Program award recipients that conducted survivorship ac-tivities and prevalence of good, better, or excellent health among cancer survivors in 2017–2020, by state.

| State | Percentage of survivors in 2017 | NCCCP Awardee Activity in 2017 | Percentage of survivor in 2018 | NCCCP Awardee Activity in 2018 | Percentage of Survivor in 2019 | NCCCP Awardee Activity in 2019 | Percentage of survivor in 2020 | NCCCP Awardee Activity in 2020 |
|---|---|---|---|---|---|---|---|---|
| Alabama | 78.2 | Yes | 78.4 | Yes | 78.7 | Yes | 81.3 | Yes |
| Alaska | 82.4 | Yes | 84.6 | Yes | 84.6 | Yes | 87.7 | Yes |
| Arizona | 81.4 | Yes | 81.3 | Yes | 81.7 | Yes | 85.6 | Yes |
| Arkansas | 77 | Yes | 76.7 | Yes | 76.1 | Yes | 80.8 | No |
| California | 82.9 | Yes | 82.4 | Yes | 82.3 | Yes | 85.8 | Yes |
| Colorado | 85.7 | Yes | 86.2 | Yes | 86.3 | No | 89.9 | Yes |
| Connecticut | 86.4 | Yes | 87 | Yes | 85.8 | Yes | 89.2 | Yes |
| Delaware | 82 | Yes | 83.8 | Yes | 82.1 | Yes | 87.2 | Yes |
| District of Columbia | 88.5 | Yes | 85.9 | Yes | 85.7 | Yes | 88.9 | Yes |
| Florida | 82.3 | Yes | 80.5 | Yes | 81.8 | No | 86.8 | Yes |
| Georgia | 82 | Yes | 81.5 | Yes | 80.8 | Yes | 85 | Yes |
| Guam | 77 | Yes | 76.7 | Yes | 79 | Yes | 82.4 | Yes |
| Hawaii | 85.8 | Yes | 84.4 | Yes | 84.6 | Yes | 89.7 | Yes |
| Idaho | 85.5 | Yes | 84.9 | Yes | 84.6 | Yes | 88.3 | Yes |
| Illinois | 82.8 | Yes | 84 | Yes | 83 | Yes | 87.7 | Yes |
| Indiana | 80.2 | Yes | 81.6 | Yes | 81 | Yes | 85.1 | Yes |
| Iowa | 85.4 | Yes | 86.5 | Yes | 86.3 | Yes | 88.1 | Yes |
| Kansas | 83.9 | Yes | 83.7 | Yes | 83 | Yes | 87.2 | Yes |
| Kentucky | 76.1 | Yes | 77.9 | Yes | 77.8 | Yes | 80.5 | Yes |
| Louisiana | 77.9 | Yes | 78.7 | Yes | 78.2 | Yes | 81.2 | Yes |
| Maine | 84.9 | Yes | 83.1 | Yes | 82.8 | Yes | 88.9 | Yes |
| Maryland | 85 | Yes | 84.7 | Yes | 85.9 | Yes | 89.4 | Yes |
| Massachusetts | 85.5 | Yes | 86.5 | Yes | 86.7 | Yes | 89.3 | Yes |
| Michigan | 82.7 | No | 81.5 | No | 81.9 | No | 85.4 | No |
| Minnesota | 87.8 | Yes | 87.1 | Yes | 86.7 | Yes | 90 | Yes |
| Mississippi | 76 | Yes | 78 | Yes | 77.9 | Yes | 81.4 | Yes |
| Missouri | 82.1 | Yes | 80.4 | Yes | 82.3 | Yes | 84.9 | Yes |
| Montana | 85.1 | Yes | 86.1 | Yes | 85.8 | No | 87.9 | Yes |
| Nebraska | 85.7 | Yes | 86.1 | Yes | 86.1 | No | 89.9 | Yes |
| Nevada | 80.4 | Yes | 80.3 | Yes | 79.5 | Yes | 83.3 | No |
| New Hampshire | 86.6 | Yes | 87.2 | Yes | 86 | Yes | 89.3 | Yes |
| New Jersey | 82.3 | Yes | 84.3 | Yes | — | Yes | 89.2 | Yes |
| New Mexico | 79.5 | Yes | 79.5 | Yes | 80.2 | Yes | 86.3 | Yes |
| New York | 83.4 | Yes | 83.7 | Yes | 83.5 | Yes | 88.3 | Yes |
| North Carolina | 81.6 | Yes | 82 | Yes | 81.6 | No | 86.5 | Yes |
| North Dakota | 85.1 | Yes | 86.6 | Yes | 86.6 | No | 88.3 | Yes |
| Ohio | 82 | Yes | 82.3 | Yes | 81.8 | Yes | 85.6 | Yes |
| Oklahoma | 79.1 | Yes | 79 | Yes | 78.9 | Yes | 82.8 | Yes |

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*Table 7. continued*

| State | Percentage of survivors in 2017 | NCCCP Awardee Activity in 2017 | Percentage of survivor in 2018 | NCCCP Awardee Activity in 2018 | Percentage of Survivor in 2019 | NCCCP Awardee Activity in 2019 | Percentage of survivor in 2020 | NCCCP Awardee Activity in 2020 |
|---|---|---|---|---|---|---|---|---|
| Oregon | 83 | Yes | 81.8 | Yes | 82.5 | Yes | 87.3 | Yes |
| Pennsylvania | 82.5 | Yes | 82.2 | Yes | 82.2 | No | 87 | No |
| Puerto Rico | 65.9 | Yes | 67.9 | Yes | 68.6 | Yes | 76.2 | Yes |
| Rhode Island | 83.5 | Yes | 83.6 | Yes | 83.8 | Yes | 88.5 | Yes |
| South Carolina | 81.7 | Yes | 82.1 | Yes | 82.3 | No | 84.2 | Yes |
| South Dakota | 86.6 | Yes | 86.3 | Yes | 84.7 | Yes | 89.6 | Yes |
| Tennessee | 80.3 | Yes | 78.7 | Yes | 79.8 | Yes | 84.4 | Yes |
| Texas | 79.3 | Yes | 81.2 | Yes | 79.1 | Yes | 84.5 | Yes |
| Utah | 86.1 | Yes | 85.2 | Yes | 85.4 | No | 89.2 | Yes |
| Vermont | 86.9 | Yes | 87.2 | Yes | 87.2 | Yes | 89.5 | Yes |
| Virginia | 84.2 | Yes | 83.4 | Yes | 83.8 | Yes | 87.7 | Yes |
| Washington | 84.4 | Yes | 84.9 | Yes | 84.3 | Yes | 88.2 | Yes |
| West Virginia | 76.2 | Yes | 76.3 | Yes | 75.8 | Yes | 80.1 | Yes |
| Wisconsin | 83.5 | Yes | 85.2 | Yes | 85.1 | Yes | 87.7 | Yes |
| Wyoming | 85.1 | Yes | 84.6 | Yes | 84.2 | No | 88.5 | Yes |

◀ *Return to Figure 7*

## Appendix Table 8. Health equity activities implemented by award recipients, by state.

| State | Year 1 Activities | Year 5 Activities |
|---|---|---|
| Alabama | 1 | — |
| Alaska | 3 | — |
| Arizona | 6 | — |
| Arkansas | — | — |
| California | 4 | — |
| Colorado | 1 | — |
| Connecticut | 2 | 1 |
| Delaware | 3 | — |
| District of Columbia | — | — |
| Florida | 1 | — |
| Georgia | 3 | 5 |
| Guam | — | — |
| Hawaii | — | — |
| Idaho | 2 | — |
| Illinois | 3 | — |
| Indiana | 1 | — |
| Iowa | 1 | — |
| Kansas | 1 | — |
| Kentucky | 1 | 1 |

| State | Year 1 Activities | Year 5 Activities |
|---|---|---|
| Louisiana | 2 | 8 |
| Maine | 2 | 10 |
| Maryland | 1 | — |
| Massachusetts | 2 | 19 |
| Minnesota | 9 | — |
| Mississippi | 1 | — |
| Missouri | 3 | — |
| Montana | 3 | — |
| Nebraska | 2 | 5 |
| Nevada | 1 | 2 |
| New Hampshire | 3 | 10 |
| New Jersey | 3 | 10 |
| New Mexico | — | 5 |
| New York | 3 | 5 |
| North Carolina | 1 | — |
| North Dakota | 3 | — |
| Ohio | 2 | — |
| Oklahoma | 2 | 5 |
| Oregon | 2 | 19 |

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*Table 8. continued*

| State | Year 1 Activities | Year 5 Activities |
|---|---|---|
| Pennsylvania | 1 | 3 |
| Puerto Rico | — | — |
| Rhode Island | 3 | 40 |
| South Carolina | 1 | 4 |
| South Dakota | 1 | 5 |
| Tennessee | 3 | 16 |
| Texas | 1 | 5 |
| Utah | 2 | 1 |
| Vermont | 1 | 15 |
| Virginia | 1 | — |
| Washington | 7 | 5 |
| West Virginia | 1 | 3 |
| Wisconsin | 1 | — |
| Wyoming | — | — |

◀ *Return to Figure 8*