

## Executive Summary

This report summarizes cancer patterns and trends and possible contributing factors in the East Buffalo/West Cheektowaga (EBWC) Study Area. This investigation was conducted as part of [Governor Cuomo's Cancer Research Initiative](#) announced in October 2017, which examined cancer trends and the potential causes of cancer in four regions of the state that have higher cancer rates, based on 2011-2015 data. New York State Department of Health (DOH) researchers investigated the EBWC area because of higher numbers of colorectal cancer, esophageal cancer, kidney cancer, lung cancer, oral cavity (mouth and throat) cancer, and prostate cancer.

During the EBWC investigation, DOH obtained input from interested members of the community. Researchers met with community members to present the design, goals, and approaches. Community members and stakeholders provided input at meetings and emailed additional feedback.

DOH will use these findings to work with partners to enhance community cancer prevention, recommend appropriate screening efforts, and support access to appropriate high-quality health care.

### *What was Evaluated*

#### **Sociodemographic Data**

DOH researchers examined data about the population, such as race, ethnicity, age, income and occupational patterns, to see if these factors could be related to higher cancer rates. These data were obtained from the US Census. Comparisons were made to Erie County, New York State excluding New York City (NYC excluding NYC) and New York State (NYS).

#### **Cancer Data**

For each type of cancer that was elevated, the evaluation of Cancer Registry data included cancer trends over time; age and gender of patients diagnosed with cancer; and characteristics of the cancer, such as type of cells that were cancerous, tumor size, and stage of disease at the time of diagnosis. Cancer data were obtained from the New York State Cancer Registry (NYSCR), which contains information on all cases of cancer diagnosed or treated in New York, as mandated by law. Researchers evaluated NYS and NYS excluding NYC as comparison areas for further evaluation of cancer patterns. The difference in expected counts generated from the two comparisons were small, and ultimately the NYS excluding NYC standard was used in subsequent analyses.

#### **Behavioral, Healthcare and Occupational Data**

DOH researchers reviewed available data about behavioral, healthcare, and occupational

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factors in the community that are known to be related to cancer. These included available information about smoking, obesity, occupation, and medical care access and practices. Data sources included the Behavioral Risk Factor Surveillance System population survey, NYS inpatient and outpatient hospital data, and the American Community Survey of the US Census.

### **Environmental Data**

DOH researchers worked with the Department of Environmental Conservation (DEC) to review available environmental data to look for unusual patterns or trends in the area compared to other areas of NYS. Data included radon concentrations in indoor air, outdoor air pollutants, drinking water contaminants, industrial and inactive hazardous waste disposal sites, access to healthy food, and traffic density.

### ***Findings***

#### **Sociodemographic Factors**

The total population of the Study Area is about 43,000. While the majority of people in Erie County, NYS excluding NYC and NYS are white, about 70% of the population in EBWC area is black. In 1990, the population was split 51% white and 48% black. By 2010, the population shifted to 25% white and 70% black. The median household income in the EBWC area is also significantly lower than in the three comparison areas. Poverty and unemployment are about double in the study area, with a higher proportion of people on public health insurance versus private insurance. Only a slightly higher proportion of people in the area had no health insurance compared to Erie County.

#### **Cancer Patterns and Risk Factors**

**Oral Cancer** includes cancers of the mouth (including lips and salivary glands) and throat. The EBWC Study Area is part of a larger area that had elevated incidence of oral cancer. However, oral cancers were not statistically significantly elevated in the targeted EBWC study area in 2011-2015.

According to the scientific literature, people at greatest risk for oral cancer are those who use large amounts of both alcohol and tobacco. Family history is also an important risk factor. Infection with the human papillomavirus (HPV) increases a person's risk of oral cancer. People whose diets include large amounts of fruits and vegetables are at lower risk of oral cancer. Sunlight exposure is associated with lip cancers. Cancer of the salivary glands is associated with exposure to ionizing radiation.

Based on review of available data, smoking and alcohol consumption might have contributed to the small excess in cancers that was observed. The results from the environmental investigation did not show any unusual environmental exposures that could be related to the excess in oral cancers in EBWC area.

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**Esophageal Cancer** is cancer of the long, muscular tube that connects the throat to the stomach. Esophageal cancer was 71% higher than expected in 2011-2015 in the EBWC area. The number of cases was statistically higher in men, specifically in men aged 50-64. However, esophageal cancer is relatively rare, and this evaluation was based on a relatively small number of cases.

According to the literature, alcohol, obesity and tobacco use account for about 80% of esophageal cancers. Squamous cell carcinoma and adenocarcinoma are the two most common types of esophageal cancers. Squamous cell carcinomas are strongly associated with tobacco use and alcohol consumption. Being overweight or obese increases the risk of adenocarcinomas. Adenocarcinomas are also associated with gastroesophageal reflux disease (GERD).

Data indicate that people living in the study area were more likely to use tobacco than people in the comparison areas. Approximately 79% of esophageal cancer cases in the EBWC area reported a current or previous history of smoking. Diagnostic codes related to smoking, obesity and alcohol use appeared more often in records of residents from the EBWC area seeking care in hospitals and emergency departments compared to other areas of NYS. Similarly, population survey data suggest that people living in the area's ZIP Codes had significantly higher smoking and higher obesity rates compared to NYS excluding NYC. See more about smoking behavior in *Behavioral, Healthcare System, and Occupational Factors*.

Data were insufficient to evaluate the role of occupational risk factors. Results from the environmental investigation did not show any unusual environmental exposures that could be related to the excess in esophageal cancers in EBWC area.

**Lung Cancer** was the third most common cancer in NYS and the second most common cancer in Erie County in 2011-2015. Lung cancer was 25% higher than expected in the EBWC area. The excess in lung cancers was statistically significantly higher among men 65 and older. Among women, the excess in lung cancers was statistically significantly higher among those age 50-64.

Lung cancers in the study area were also statistically significantly higher than expected in the non-Hispanic black and other race group taken alone. Lung cancer rates in Erie County have been consistently higher than rates in other areas of the state since 1996.

Approximately 80% of lung cancers have been attributed to smoking, with strongest linkages to squamous cell and small cell carcinoma. There was a history of tobacco use reported in nearly 90% of lung cancer diagnoses in the EWBC study area, with about 48% of those being current smokers. Diagnostic codes related to smoking among people seeking care in hospitals and emergency departments appeared more often in records of residents from the EBWC area compared to other areas of NYS. Similarly, population survey data suggest that people living in the area's ZIP Codes had significantly higher smoking and higher obesity rates compared to NYS excluding NYC. See more about tobacco use in *Behavioral, Healthcare System, and Occupational Factors*.

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Radon is considered the second most important risk factor for lung cancer. Overall, evaluation of the radon data for the EBWC Study Area did not provide strong evidence of widespread exposure to unusually high concentrations of radon. However, the total number of radon tests in the area was relatively low. Results from the environmental data review did not show any other environmental exposures that may be related to lung cancer risk in the EBWC area. Other risk factors for lung cancer include family history and genetic factors, exposure to second-hand smoke, and other sources of environmental and occupational exposure.

Occupational patterns and Buffalo's history as an industrial and manufacturing hub suggest that occupational exposures could be a contributing factor in lung cancer in the area. However, data were insufficient to evaluate the role of occupational risk factors.

**Colorectal Cancer** incidence was 40% higher than expected in the EBWC area and was statistically significantly higher than expected among men in 2011-2015. Numbers of colorectal cancers were greater than expected among men over age 50. Colorectal cancers were also significantly higher than expected among those in the non-Hispanic black and other race category. Distant stage cancers and cancers of the proximal colon were also statistically significantly higher than expected in the EBWC area.

According to the literature, smoking is associated with colorectal cancer, but the association is not as strong as for some other smoking-related cancers. About 48% of the individuals with colorectal cancer in the EBWC area were smokers or had a history of smoking. Alcohol intake, excess body weight, red and processed meat consumption, diets low in dietary fiber and calcium, and lack of physical activity also contribute to colorectal cancer risk. Diagnostic codes related to smoking, obesity and alcohol use among people seeking care in hospitals and emergency departments appeared more often in records of residents from the EBWC area compared to other areas of NYS. Population survey data also suggest that people living in the ZIP Codes including the Study Area had a significantly higher smoking rate, were less likely to engage in leisure time physical activity, and had higher rates of obesity compared to NYS excluding NYC. See more about smoking behavior in *Behavioral, Healthcare System, and Occupational Factors*.

Studies have found colorectal cancers are higher in areas with lower community-level socioeconomic status. Researchers evaluated data available about screening by colonoscopy, which reduces risk of developing colorectal cancer by removing pre-malignant lesions. The U.S. Preventive Services Task Force (USPSTF), an independent, volunteer panel of national experts in disease prevention and evidence-based medicine, recommends screening at ages 50-75. Data were insufficient to fully evaluate whether people with incident colorectal cancer in 2011-2015 were diagnosed as a result of screening. However, review of hospital and emergency department data indicate that the percent of people getting colonoscopies in the area is similar to other areas of NYS. Population survey data also show higher rates of colorectal cancer screening in the ZIP Codes including the Study Area compared to the rest of the state. Elevated incidence of colorectal cancer despite apparently high screening rates may be explained, at least in part, by the finding that proximal colon cancers accounted for a large portion of the

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excess. Some studies have suggested that certain colorectal cancer screening techniques are not as effective at reducing occurrence of cancers in the proximal colon.

The literature is less conclusive on environmental and occupational risk factors for colorectal cancer. However, results from the environmental investigation did not show any unusual environmental exposures that could be related to the excess in colorectal cancers in the EBWC area. Data were insufficient to evaluate the role of occupational risk factors.

**Prostate Cancer** occurs in the prostate, which is part of the male reproductive system, and was 49% higher than expected in the EBWC area in 2011-2015. Prostate cancer was the second most common cancer in NYS and the third most common cancer in Erie County in that time period.

Aside from race and family history, there are few firmly established risk factors for prostate cancer. Rates of prostate cancer are higher among black men than among white men. After adjusting for race, the number of prostate cancers in the EBWC area did not stand out as statistically significantly above what was expected.

It is possible that changes in prostate cancer screening practices played a role in the observed elevation in the EBWC area. An increase in prostate cancer nationally in the 1990s corresponded to an increase in early stage prostate screening capabilities adopted during that time. Some of these detected cancers were not likely to progress in a way to cause clinically meaningful symptoms or require active treatment. Today, the USPSTF does not find enough net benefit to recommend the practice for men 55-69 and finds no net benefit for men older than 70. Prostate cancer rates statewide dropped substantially since 2000, however rates in Erie County have decreased more slowly. It is possible that the higher than expected numbers of local stage prostate cancers may reflect more intensive screening practices in Erie County compared to other areas of NYS.

**Kidney Cancer** in the EBWC area was 69% higher than expected in 2011-2015. In Erie County, the rate of kidney cancer was higher in men than women and about 20% higher among blacks than whites. In the study area, numbers of kidney cancers were statistically greater than expected in both men and women. Statistically significant excess numbers were observed in the age categories 50-64 and 65 and older, and in both whites and black/other race groups.

Kidney cancers have been increasing in NYS since the late 1970s but have slowed in more recent years. According to the literature, obesity and smoking increase the risk of kidney cancer.

Diagnostic codes related to smoking and obesity among people seeking care in hospitals and emergency departments appeared more often in records of residents from the EBWC area compared to other areas of NYS. Similarly, population survey data suggest that people living in the area's ZIP Codes had significantly higher smoking rates and higher obesity compared to NYS excluding NYC. These data suggest that smoking and obesity may be of concern and may

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contribute to kidney cancer in the EBWC area. See more about smoking and obesity in *Behavioral, Healthcare System, and Occupational Factors*.

Occupational exposure to trichloroethylene (TCE) has been associated with kidney cancer based on animal and worker studies in the dry cleaning, aerospace, and uranium industries and in factories that used TCE as a degreasing agent. Occupational patterns and Buffalo's history as an industrial and manufacturing hub suggest that occupational exposures could be contributing to the observed excess. However, data were insufficient to evaluate the role of occupational risk factors in kidney cancer in the area.

Review of industrial and inactive hazardous waste disposal sites did not find clear evidence of widespread exposure to TCE among the general public. Past studies have explored associations between kidney cancer and drinking water contaminants including arsenic, nitrate, disinfection by-products and PFOA. However, researchers found no violations for drinking water contaminants in the EBWC area during the time period evaluated. Studies have not shown strong associations between kidney cancer and outdoor air pollution. Estimates of cancer risk associated with hazardous air pollutants in outdoor air were similar to other areas of NYS.

### **Behavioral, Healthcare System, Environmental Factors and Occupational Factors**

#### **Tobacco Use**

Oral, esophageal, lung, colorectal, and kidney cancers are tobacco-related. The population survey and hospital inpatient and outpatient discharge data suggested that people in the study area may be more likely to smoke, although sample size was limited. Results show that nearly 30% of population survey respondents reported being current smokers, compared to about 16.7% in NYS excluding NYC. Similarly, a review of hospital and emergency department visits indicates that a greater proportion of people in the EBWC area had records with billing codes related to smoking compared to other areas of NYS.

#### **Obesity**

Esophageal and kidney cancer are associated with obesity. Population survey data suggested that the percent of people aged 18 and older in the study area who are obese is greater than in NYS excluding NYC, although the sample size was limited. Similarly, a review of hospital and emergency department visits indicates that a greater proportion of people in the EBWC study area had records with billing codes related to obesity compared to other areas of NYS.

#### **Healthcare System**

The healthcare system itself can influence the likelihood that someone could be diagnosed with certain cancers before any symptoms appear. People with health coverage have better access to healthcare services. Researchers evaluated healthcare coverage and access to care using the

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population survey. The results suggested that the area has slightly lower rates of healthcare coverage and a slightly higher rate of colorectal cancer screening compared to other areas of the state.

### Environmental Factors

**Outdoor Air Pollution.** Researchers reviewed air quality monitoring and computer modeled data for air pollutants and air toxics. Criteria air pollutant levels have been trending downward (i.e., cleaner air) over time. The estimated cancer risks from air toxics in the EBWC area are similar to those for other areas of the state.

**Radon in Indoor Air.** Radon is the second leading cause of lung cancer after smoking. Researchers evaluated radon testing frequency and compared average concentrations in the EBWC Study Area to the US Environmental Protection Agency's (EPA) recommended action level, as well as other areas of the state. Based on a relatively small number of radon tests in the EBWC area, 3.8% were above EPA's radon action level, significantly lower than the proportion for Erie County and other areas of the state.

**Public Drinking Water.** Researchers reviewed public drinking water data to identify potential drinking water exposures. EBWC is served by two public water systems: the Buffalo Water Authority and the ECWA Direct. The review showed no violations of drinking water standards in the public water supply systems during the time period data were available. Review of unregulated contaminant sampling data identified exceedances of reference concentrations for one chemical. However, sampled concentrations were below those which normally cause health effects in animals.

**Industrial and Inactive Hazardous Waste Disposal Sites.** Researchers reviewed information about existing sites in the EBWC area. This evaluation found no information suggesting contamination from existing and known remedial sites was causing widespread exposures in the EBWC area.

**Access to Healthy Food.** The Modified Retail Food Environment Index (mRFEI) measures the number of healthy and less healthy food retailers within census tracts across each state in the US. Researchers evaluated mRFEI data for the census tracts that cross the EBWC area. This provides a screening for adequacy of access to healthy food. There is variation in the mRFEI across the EBWC area. In the portion of the EBWC that falls within the City of Buffalo, where a majority of the study area population lives, the mRFEI scores tend to be lower suggesting a lack of access to healthy food.

**Traffic.** Researchers assessed available data to compare the proportion of the population living near dense traffic areas compared to other areas of NYS. The most heavily trafficked roads in the EBWC area are Interstate 90 and Kensington Expressway. As in other urban areas, there is likely some exposure to traffic-related pollution in the EBWC Study Area. The proportion of the population living close to roads with the highest traffic density is lower than in NYC but higher

than in NYS excluding NYC, where there are more rural areas.

**Occupation.** Occupational histories are not typically reported as part of the diagnosis of cancer because most people are older at the time of their diagnosis and do not report job histories from earlier in life.

The EBWC and the Buffalo area were home to several industrial facilities. Some of the workers in these facilities were likely exposed to chemicals associated with cancer, although detailed information on frequency, magnitude and duration of exposure could not be evaluated as part of this study.

Researchers compared changes in EBWC employment trends over time to other areas of the state using the US Census and the American Community Survey data. Results indicate that the number of people in the EBWC area working in occupations that are more likely to have workplace exposure to hazardous substances is declining, although the area has a higher percentage of people working in these occupations than other areas of the state. Data also show a corresponding increase in service employment occupations.

## ***Conclusions***

- Overall, few cancers were observed in the 19 or younger and 20-49-year-old age groups and none of the differences between observed and expected counts in these age groups were statistically significant.
- In the analysis by gender, statistically significant excess incidence was observed mainly in men. Men overall had statistically significantly higher than expected incidence of esophageal, lung, colorectal, prostate (male-only), and kidney cancer. Women overall had statistically significantly higher than expected incidence of kidney cancers.
- It is likely that higher rates of tobacco use contributed to the elevated incidence of lung, oral, esophageal, kidney and colorectal cancers in the area. Higher rates of obesity and lack of physical activity also may be playing a role in higher rates of some cancers.
- Historically, the EBWC and the Buffalo area were home to several industrial facilities. Exposures to hazardous substances in the workplace can be important for several cancers, however data were insufficient to evaluate the role of occupational risk factors in cancer incidence.
- Access to healthcare is similar in the EBWC area as in other areas of NYS. However, for several of the higher than expected cancers, significant numbers of cancers were diagnosed at distant stages indicating people in the study area may not have accessed care for routine screening or monitoring that might have identified cancers at an earlier stage.
- Environmental factors evaluated in this study included radon concentrations in indoor air, outdoor air pollutants, drinking water contaminants, industrial and inactive hazardous waste disposal sites, traffic density, and access to healthy food. Based on these evaluations, there were no unusual environmental exposures that would likely explain the higher cancer incidence in the study area. With respect to access to healthy food, further evaluation of grocery options may be helpful to confirm the status of accessibility, or lack of accessibility,

to healthy food, especially in the Buffalo portion of the study area.

## ***Recommendations***

The recommendations below are divided into two main sections: 1) recommended actions to address the specific cancers that were elevated in the EBWC Study Area, and 2) recommended actions to address all cancer types throughout New York State. Many of the recommended activities are aligned with two existing State plans that address cancer prevention and control, the *New York State 2018-2023 Comprehensive Cancer Control Plan*, and the *New York State Prevention Agenda 2019-2024*.

### **Recommended Actions Based on Specific Cancers Elevated in the East Buffalo/West Cheektowaga Study Area**

#### **Health Promotion and Cancer Prevention**

##### **Tobacco Prevention**

**Recommendation:** Prevent initiation of tobacco use, including combustible tobacco and electronic vaping products by youth and young adults.

**Recommendation:** Promote tobacco use cessation, especially among populations disproportionately affected by tobacco use including: low socioeconomic status; frequent mental distress/substance use disorder; lesbian, gay, bisexual and transgender; and disability.

**Recommendation:** Eliminate exposure to secondhand smoke and exposure to secondhand aerosol/emissions from electronic vapor products.

##### **Alcohol Use**

**Recommendation:** Implement environmental approaches, including reducing alcohol access, implementing responsible beverage services, reducing risk of drinking and driving, and restricting underage alcohol access.

**Recommendation:** Collaborate with partners and key stakeholders to educate the public, including youth and young adults, on cancer risk related to alcohol usage.

**Recommendation:** Provide personalized feedback about the risks and consequences of excessive drinking through the use of electronic screening and behavioral counseling interventions in healthcare settings, schools, and emergency rooms.

**Recommendation:** Among persons meeting the diagnostic criteria for alcohol dependence, promote the use of alcohol misuse screening and brief behavioral counseling

interventions via traditional (face to face) or electronic means, and referrals to specialty treatment.

### **Healthy Nutrition and Physical Activity**

**Recommendation:** Promote healthy eating and food security by:

- Increasing access to healthy and affordable foods and beverages,
- Increasing skills and knowledge to support healthy food and beverage choices,
- Increasing food security, and
- Increasing awareness of DOH sportfish advisories to promote healthier fish consumption choices while reducing chemical exposures ([https://www.health.ny.gov/environmental/outdoors/fish/health\\_advisories/](https://www.health.ny.gov/environmental/outdoors/fish/health_advisories/)).

**Recommendation:** Increase physical activity by:

- Improving community environments that support active transportation and recreational physical activity for people of all ages and abilities,
- Promoting school, child care, and worksite environments that support physical activity for people of all ages and abilities, and
- Increasing access, for people of all ages and abilities, to safe indoor and/or outdoor places for physical activity.

### **Cancer Screening and Early Detection**

#### **Lung Cancer Screening.**

**Recommendation:** Educate men and women who meet the criteria for lung cancer screening about the benefits and risks of screening to help them make informed decisions.

**Recommendation:** Healthcare providers need tools and support to engage with patients who may benefit from screening, and facilities adopting lung cancer screening programs should be following national guidelines for a quality program.

#### **Colorectal Cancer Screening**

**Recommendation:** Educate men and women who meet the criteria for colorectal cancer screening about the benefits and risks of screening to help them make informed decisions.

**Recommendation:** Educate providers and the public that there are many testing options for colorectal cancer screening including take-home tests.

**Recommendation:** Reduce cost-related barriers to screening by educating providers and the public that health insurance plans in New York State are required to cover screening, and for those who are uninsured, the New York State Cancer Services Program (CSP) provides

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free colorectal cancer screening to men and women age 50 and older.

**Recommendation:** Support primary care practices and staff to implement evidence-based strategies outlined in the Guide to Community Preventive Services such as the use of patient and provider screening reminders.

### Prostate Cancer Screening

**Recommendation:** Educate men about the benefits and risks of prostate cancer screening to help them make informed decisions, especially men at higher risk for prostate cancer, including Black men and men with a family history of prostate cancer.

## Healthy and Safe Environment

### Radon Testing and Mitigation

**Recommendation:** Improve the public's awareness about the relationship between indoor radon exposure and lung cancer by conducting outreach and education about building testing and remediation. Promote the DOH's free and low-cost radon test kit programs, provision of test kits at half price to schools and daycares, and free test kits as part of the DOH's Healthy Neighborhoods Program and other grant-funded programs.

**Recommendation:** Explore local level policy and/or code adoption to require radon resistant construction in high radon areas.

**Recommendation:** Increase the number of physicians that ask their patients if they have had their homes tested for radon and refer them to the DOH, as needed. Add radon testing questions to routine electronic medical questionnaires.

### Safety in the Workplace

**Recommendation:** Develop targeted occupational safety and health training programs for employers and workers in high-risk jobs.

**Recommendation:** Incorporate industry and occupation into electronic health records and other patient-oriented databases.

## Recommended Actions to Reduce the Burden of All Cancers Statewide

Below are highlights of what individuals can do and what DOH and its partner organizations are doing. For more information on activities, by type of organization, that New Yorkers can do to help reduce the burden of cancer, see:

[https://www.health.ny.gov/diseases/cancer/consortium/docs/2018-2023\\_comp\\_cancer\\_control\\_plan.pdf#page=62](https://www.health.ny.gov/diseases/cancer/consortium/docs/2018-2023_comp_cancer_control_plan.pdf#page=62).

**For All New Yorkers**

The following are things that all individuals can do to reduce their risk of cancer:

- If you use tobacco, quit. If you don't use tobacco, don't start.
- Eat nutritious meals that include fruits, vegetables and whole grains.
- Get moving for at least 30 minutes a day on five or more days each week.
- Use sunscreen, monitor sun exposure and avoid tanning salons.
- Limit alcohol use.
- Get cancer-preventive vaccines such as hepatitis B and HPV.
- Learn your family health history (if possible) and discuss with your healthcare provider whether genetic counseling might be right for you.
- Discuss what cancer screening tests might be right for you with your healthcare provider.
- Test your home for radon.
- For women of child-bearing age, know the benefits of breastfeeding and, if possible, breast-feed infants exclusively for at least the first six months of life.

**For NYS Department of Health and Partner Organizations**

**Cancer Surveillance:** The New York State Cancer Registry (NYSCR) was designated by the CDC (Centers for Disease Control and Prevention) as a Registry of Excellence and has achieved Gold-level certification since 1998. In 2018, the NYSCR became a member of the National Cancer Institute's Surveillance, Epidemiology and End Results Program (SEER), the nation's preeminent source of population-based cancer data.

**Recommendation:** Continue to meet the highest cancer registry standards for timeliness, completeness and quality of data, and make these data available to researchers, clinicians, public health officials, legislators, policymakers, community groups and the public.

**Environmental Health:** DOH's Center for Environmental Health (CEH) works collaboratively with other agencies including the NYS Department of Environmental Conservation, the federal Environmental Protection Agency, the Centers for Disease Control and Prevention (CDC), and the Agency for Toxic Substance and Disease Registry (ATSDR). CEH programs evaluate health effects associated with environmental exposures, develop policies, and maintain a variety of programs to reduce and eliminate exposures.

**Recommendation:** Continue to identify and assess potential exposures throughout the state and take action to reduce those exposures. NYS will continue to support programs to promote and maintain clean air, clean water and reduce human exposures to environmental hazards, with particular attention to the needs of environmental justice communities.

**Recommendation:** Promote awareness of programs and initiatives to reduce environmental hazards in our communities.

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**Statewide Initiatives:** The overarching goal of cancer prevention and control efforts in NYS are detailed in two State plans, the *New York State 2018-2023 Comprehensive Cancer Control Plan*, and the *New York State Prevention Agenda 2019-2024*.

**Recommendation:** Continue to work with partners to implement cancer-related initiatives.

- More details about the NYS Comprehensive Cancer Control Plan can be found at: <https://www.health.ny.gov/diseases/cancer/consortium/index.htm>.
- More details about the NYS Prevention Agenda can be found at: [https://www.health.ny.gov/prevention/prevention\\_agenda/2019-2024/](https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/).