

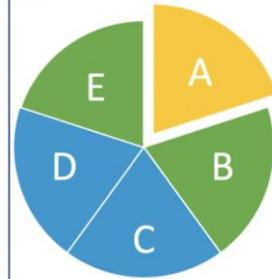


Dani Wilson, MSW  
*Strategic Director*  
Cancer & Environment  
Network of SWPA

## Engaging Cancer and Environment-Focused Organizations in Reducing Environmental Carcinogens

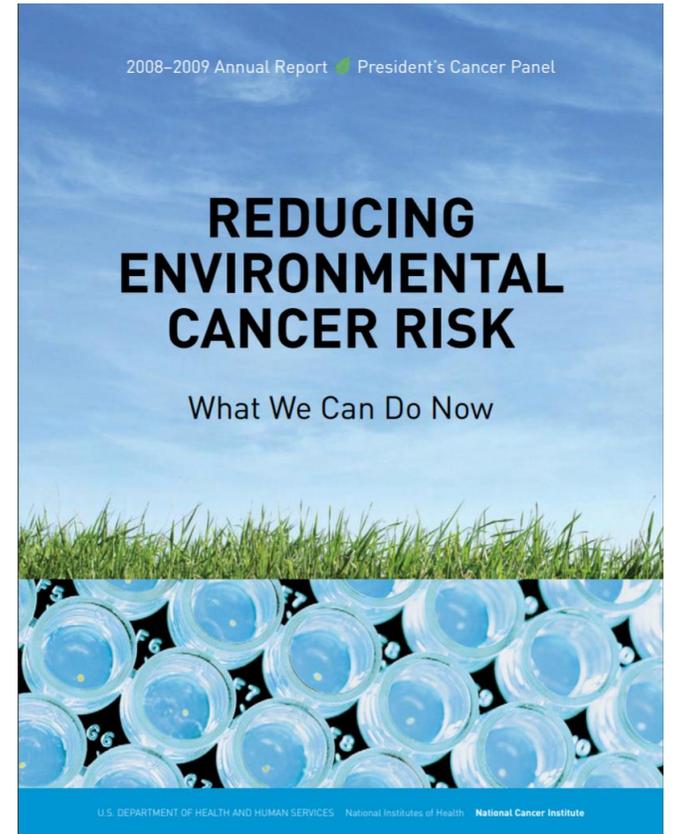


Figure 3: The Sufficient-Component Cause Model



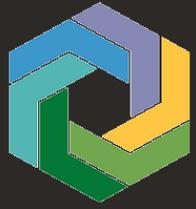
- Slices A-E represent component causes of cancer.
- When slices A-E are present, there is sufficient cause for the cancer.
- If we can just prevent one component cause from occurring, slice A, we can prevent cancer.

Adapted from Rothman KJ. Epidemiology—An Introduction. Oxford: Oxford University Press; 2002.



# Our Beginnings

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## The Problem

People living in Southwestern Pennsylvania are exposed to elevated levels of environmental carcinogens

Highways

Factories

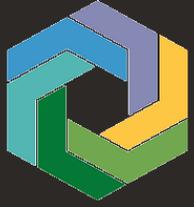
Steel mills

Coke ovens

Fracking wells

Radon

Consumer Products

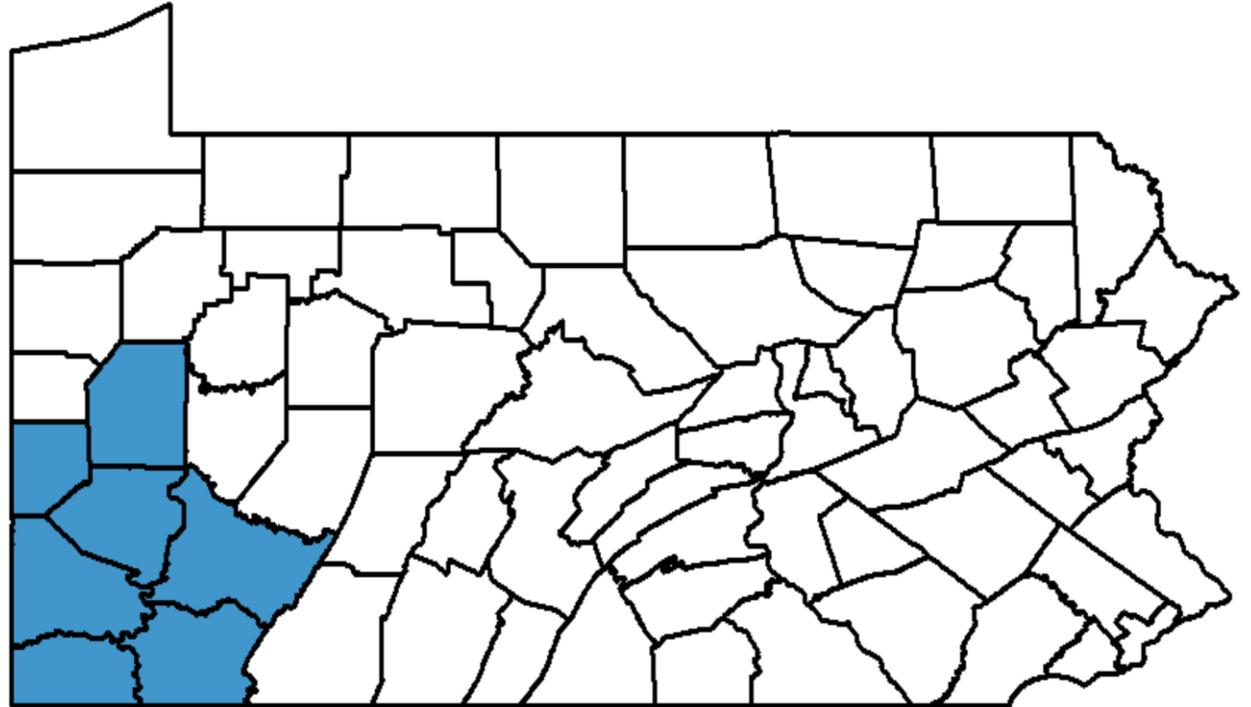


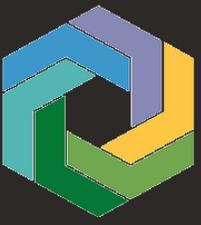
## The Problem

Cancer rates in  
Southwestern Pennsylvania  
are up to

**50%**

higher than the rest of the  
United States

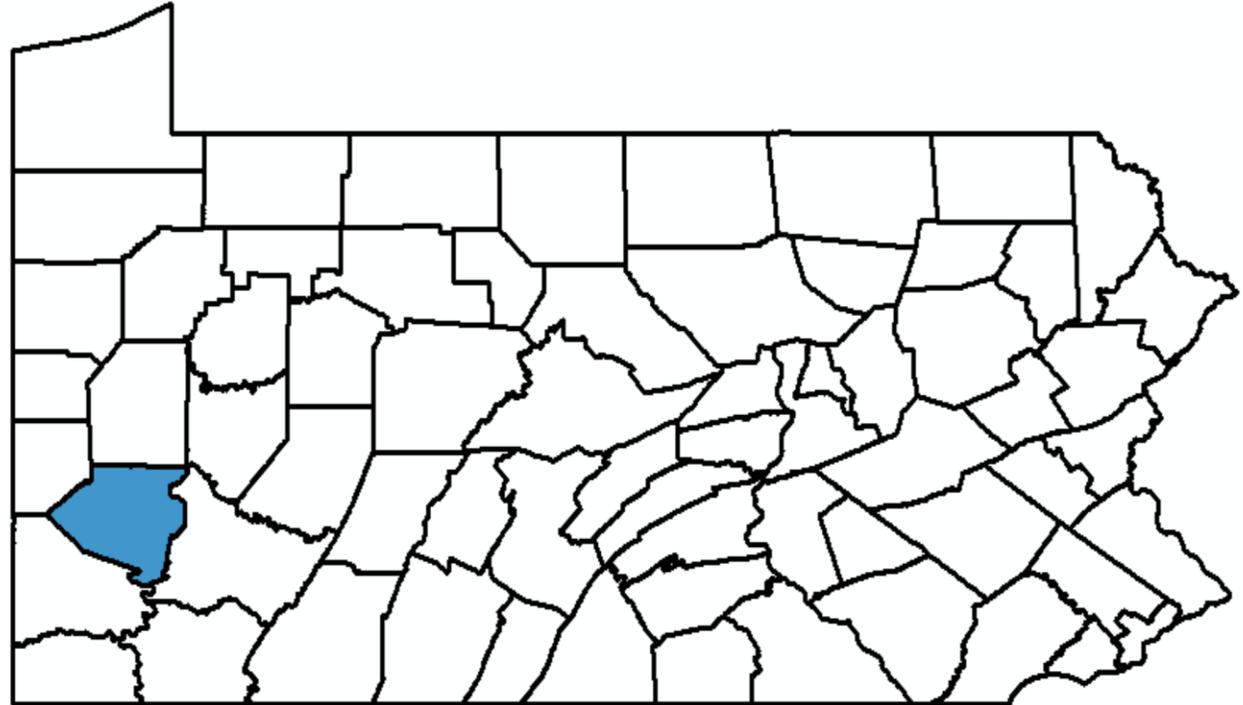


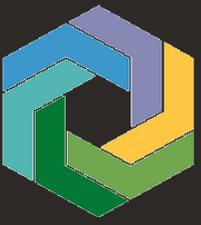


## The Problem

# Cancer Risk 26% Higher in Environmental Justice Areas

Pennsylvania defines an environmental justice (EJ) area as any census tract where 20 percent or more individuals live at or below the federal poverty line, and/or 30 percent or more of the population identifies as non-white, based on US Census data.





## The Work of the Network

- Workgroups
  - Community Engagement
  - Education and Outreach
  - Policy
  - Science Support & Advisory
- Monthly digest provides updates on relevant research, news, events, resources
- Strategy sessions
- Quarterly meetings for co-learning and cross-workgroup collaboration

# Reducing Pollution: Critical Pathway for Cancer Prevention

A Southwestern Pennsylvania Declaration

## Adapting the WHO Asturias Declaration for Southwestern Pennsylvania

The World Health Organization's **Asturias Declaration** is a call for leadership to prevent occupational and environmental cancers [1]. In this tenth anniversary year, we take it as inspiration to chart a course towards an equitable future where no individual in our region is diagnosed with cancer due to exposures in the environments where they live, work, play and go to school. Signers of this "Southwestern Pennsylvania Declaration" recognize that realizing this vision will require concerted action by multiple sectors, and centering voices of people disproportionately harmed. We commit to taking actions currently available to us and to seeking new solutions with new partners; and we call on our neighbors, colleagues, elected officials and other leaders to do the same.

Cancer develops from a combination of genetic and external risk factors, a series of interactions, much like electric circuitry, where many components need to be in place to cause a light to turn on. In the case of environmental chemicals, exposure to any one pollutant may pose only a small increased risk of cancer in an individual, but if exposures to that pollutant are widespread and occur in most people, even small increases in individual risk can result in significant numbers of cases in the general population. Beyond that, when most people are exposed to multiple substances that increase cancer risk to varying degrees in various ways, that too can result in

## The Twin Crises of Cancer and Environment in Southwestern Pennsylvania

Cancers ravage people in Southwestern Pennsylvania. As community leaders, parents and caregivers, health care providers, business owners, researchers, advocates—we all want to do everything we can to support them and prevent others from having to face a cancer diagnosis.

In our region, we have taken important steps on cancer prevention—with programs and policies to reduce smoking and promote healthy lifestyles. These are important priorities—particularly when they address the structural barriers, rooted in racism, that put healthy lifestyles out of reach. But they are not enough, especially given the substantial contribution of factors other than smoking to cancer incidence in particular places across the country, including Allegheny County [2]. Rates of many kinds of cancer are strikingly high in our region—higher than the state and nation—with disproportionate burdens on people of color and marginalized communities [3]. In Southwestern Pennsylvania, there is need for bold action on a cancer prevention strategy

## CANCER BRIDGES – CREATING HEALTHY SPACES FOR OUR COMMUNITY

Implementing green cleaning and disinfecting practices to create healthier spaces

### Overview

To support Cancer Bridges' commitment to creating healthy spaces for its members, this document provides background and summarizes policies and best practices for cleaning and disinfecting within the Cancer Bridges facility.

# Did you notice?

Antimicrobial soap, air fresheners, and fragranced products have been removed from this bathroom.

Scan here to learn why:



# CENSWPA Collaborative Projects

# Collaborative Networks for Systems Change

## Systems Approach

- Investigate why the system is stuck
- Identify opportunities for shifting dynamics
- Engage people and groups who can influence different parts of the system

## Collaborate to:

- Share information
- Learn together
- Lift up aligned efforts of participating organizations
- Generate additional support towards common goal
- Develop strategic initiatives uniquely possible to set of groups



# Cancer & Environment Network of Southwestern Pennsylvania



**Visit us: [censwpa.org](https://censwpa.org)**  
**Contact us: [info@censwpa.org](mailto:info@censwpa.org)**

# Environmental Health & Impact on Cancer: Policy and Partnership Development

Nancy Buermeyer  
Director of Program and Policy

# Who is BCPP?

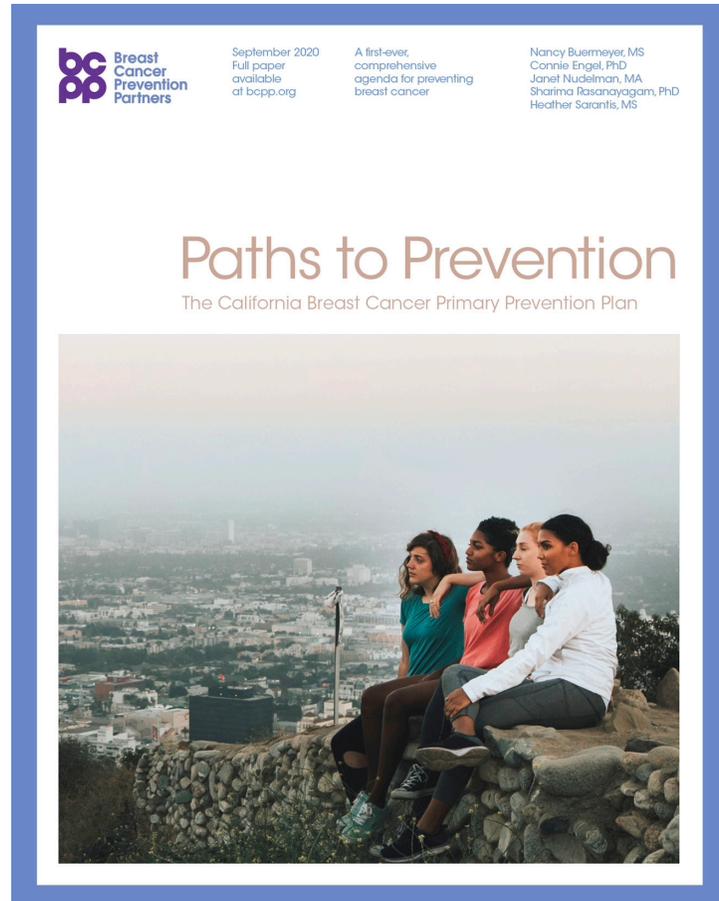


## Mission:

Breast Cancer Prevention Partners (BCPP) works to prevent breast cancer by eliminating our exposure to toxic chemicals and radiation linked to the disease.

# Paths to Prevention

## CA Breast Cancer Primary Prevention Plan



### Goal:

Develop an action plan that uses the best science, community wisdom, and policy initiatives to create systemic change to stop breast cancer before it starts.

- Broad coalition – incl. EJ, EH, health practitioners, labor, agency staff, scientists
- Science – extensive dive into the literature
- Community Engagement – listening sessions

# Paths to Prevention

## CA Breast Cancer Primary Prevention Plan

### Unique in several important ways:

- Focus on Primary Prevention
- Focus on Systemic Interventions
- Social Justice lens
- Weaving together science and community wisdom



### Primary prevention

Preventing the onset of disease by eliminating or reducing exposures to risk factors. This is distinct from early detection.

### Systemic change

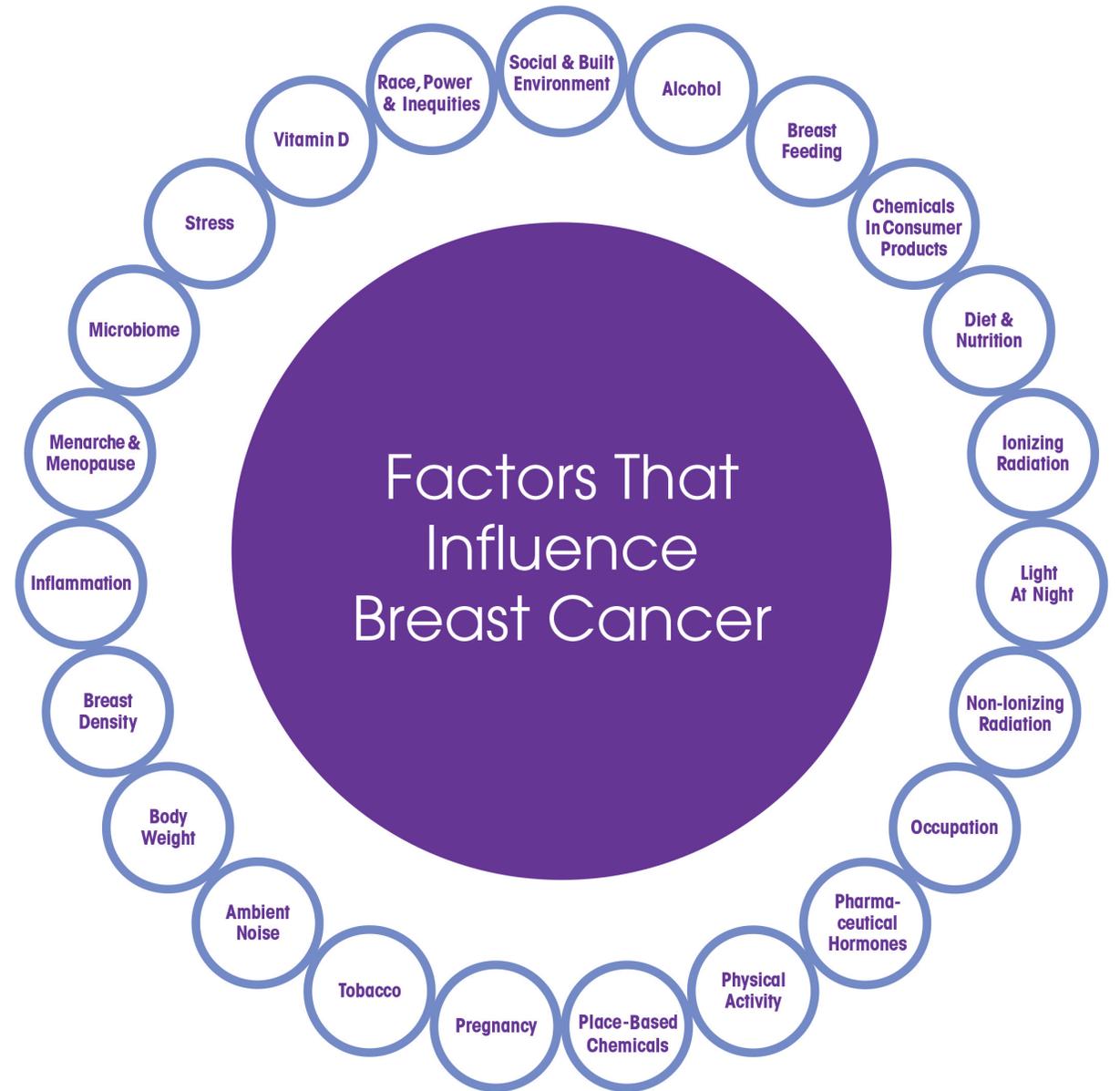
Addressing societal-level issues, rather than individual behaviors, to reduce breast cancer risk at a population level.

**Focus on breast cancer; interventions impact many other cancers and chronic diseases.**

# 23

## Breast cancer risk & protective factors

Interventions:  
**330** Policy  
**85** Research



# Policy – Prioritizing and Creating Partnerships

Using ***data*** to identify priority issues/”hot spots” in your area

Developing ***partnerships*** with organizations/communities working to reduce exposures



## Intervention Examples:

- Identifying and reducing community exposures next to fossil fuel extraction/refining.
- Implement municipal ordinances to restrict or eliminate pesticide use in parks, schools, and public property.
- State and local procurement policies that avoid toxic chemicals in products.

# Data Sources Informing Policy

## Health Tracking Programs – CDC Funded in 25 States

**The purpose of this Program is to deliver information and data to protect the nation from health issues arising from or directly related to environmental factors.**

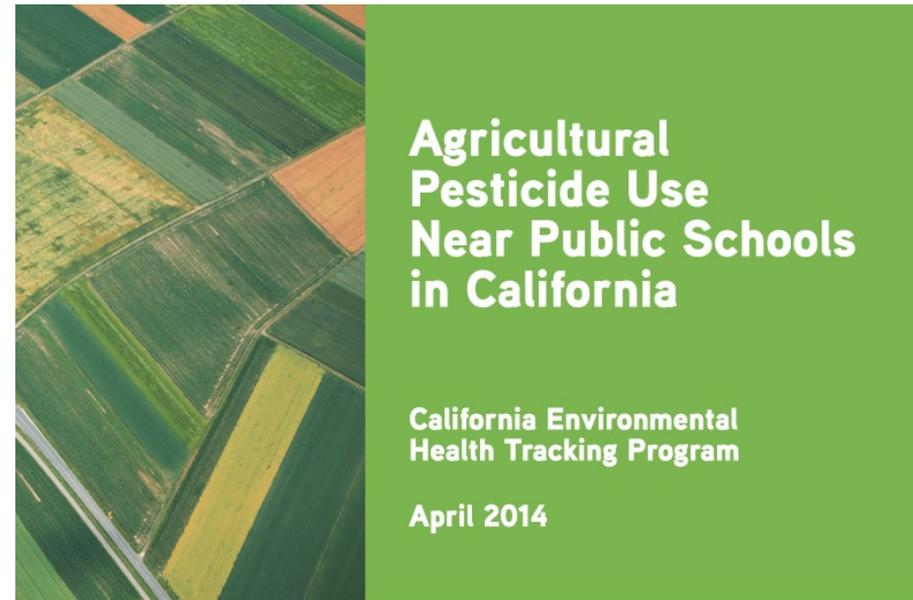
### **Pesticide Use Near Schools**

#### Finding:

Over half a million pounds of pesticides of public health concern (144 distinct pesticides) were applied within ¼ mile of public schools in the 15 counties in 2010.

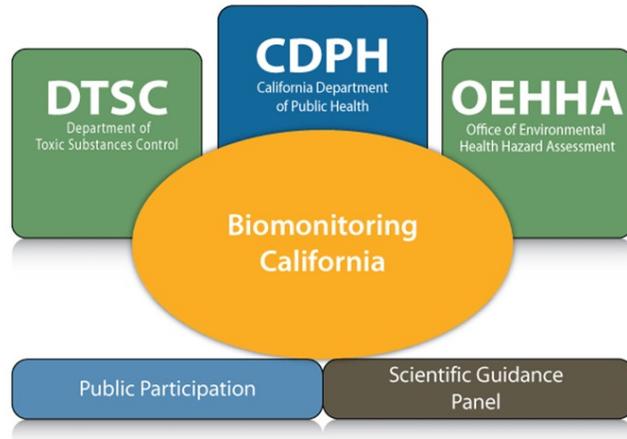
#### Result:

Regulation limiting pesticide application within ¼ mile of schools; advocates continue to work for even stronger regs.



# Data Sources Informing Policy

## Biomonitoring – Measuring Pollution in People



Created by 2006 legislation sponsored by BCPP and allies

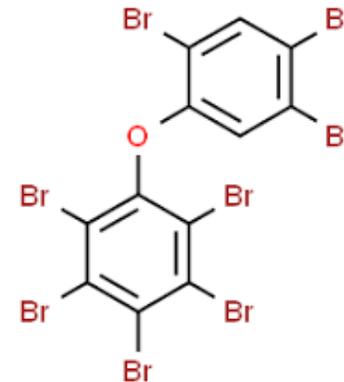
Collaboration of 3 dept. in 2 agencies:  
CA Dept. of Public Health and CalEPA

Continued advocacy for additional state and federal funds

### Showing effectiveness of policy:

2003 CA Law banning PBDE flame retardants

39% decrease in breast milk levels in CA women  
from 2003 to 2012



# CA Policy Successes – Safe Cosmetics Database

CA Safe Cosmetics Database – disclosing  
carcinogens in cosmetics and personal care  
products

Reported since 2009

108,381 Products

775 Companies

211 Ingredients

## Cosmetics Containing Ingredients Linked to Cancer or Reproductive Harm

*Data Reported to the  
California Safe Cosmetics Program  
2009-2015*



August 2016

# CA Policy Successes – Cleaning Product Ingredient Disclosure

First requirement in the country – on label and online

Worked w/ impacted businesses (e.g., P&G, SC Johnson)

Companies asked for extra time before disclosing carcinogens to allow reformulation



# CA Policy Successes – Banning PFAS in FF Foam and Food Packaging

Banning PFAS in Firefighting Foam –  
Partnered w/ CA Professional Firefighters



Banning PFAS in Food Packaging  
Partnered w/ CA Association of Sanitation Agencies

# State Agencies and Policy

State agencies can, and in our view should:

- Discuss and inform policy
- Coordinate and convene coalition partners and other diverse stakeholders

Don't need to directly lobby to impact change



# DATA-INFORMED ACTION ON ENVIRONMENTAL CHEMICALS IN THE CONTEXT OF A STATE CANCER PLAN

Mary Beth Terry, PhD

Professor of Epidemiology, Columbia University  
Associate Director, Herbert Irving Comprehensive Cancer Center (HICCC)  
mt146@columbia.edu

# Importance of Partnerships for Cancer Control

## State Programs

Cancer Control Plans

Setting policy priorities

Collecting Statewide data  
and making data  
available and accessible

Analyses to inform  
Decision Making

## Academic Partners

Study design, research  
and analyses

Public health training and  
training pipeline

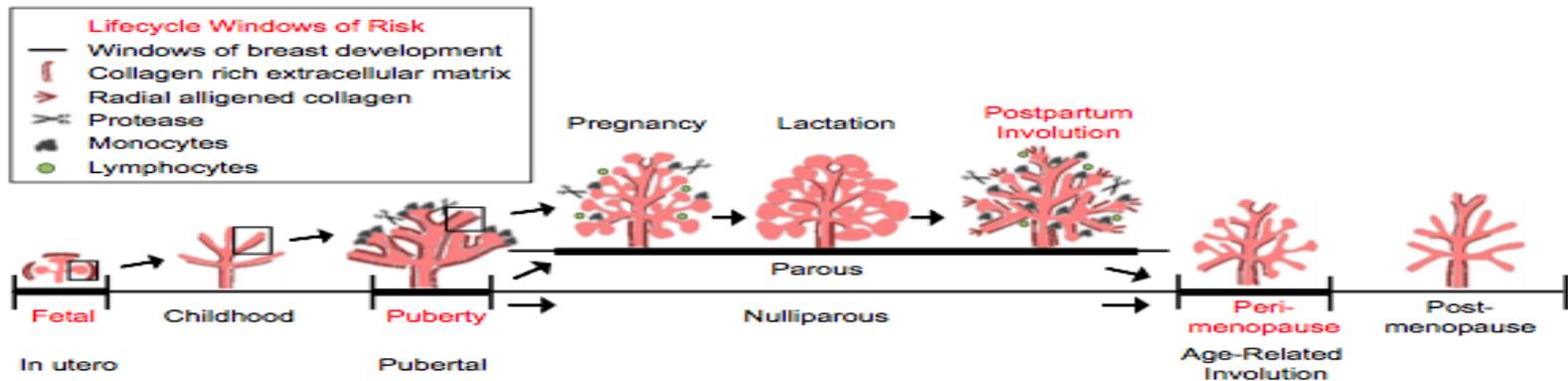
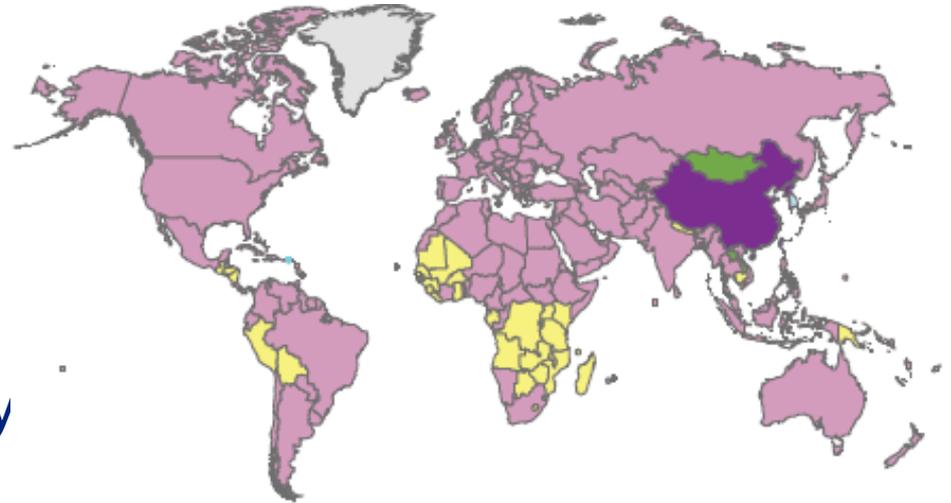
Connection to Cancer  
Centers Community  
Outreach and  
Engagement Offices

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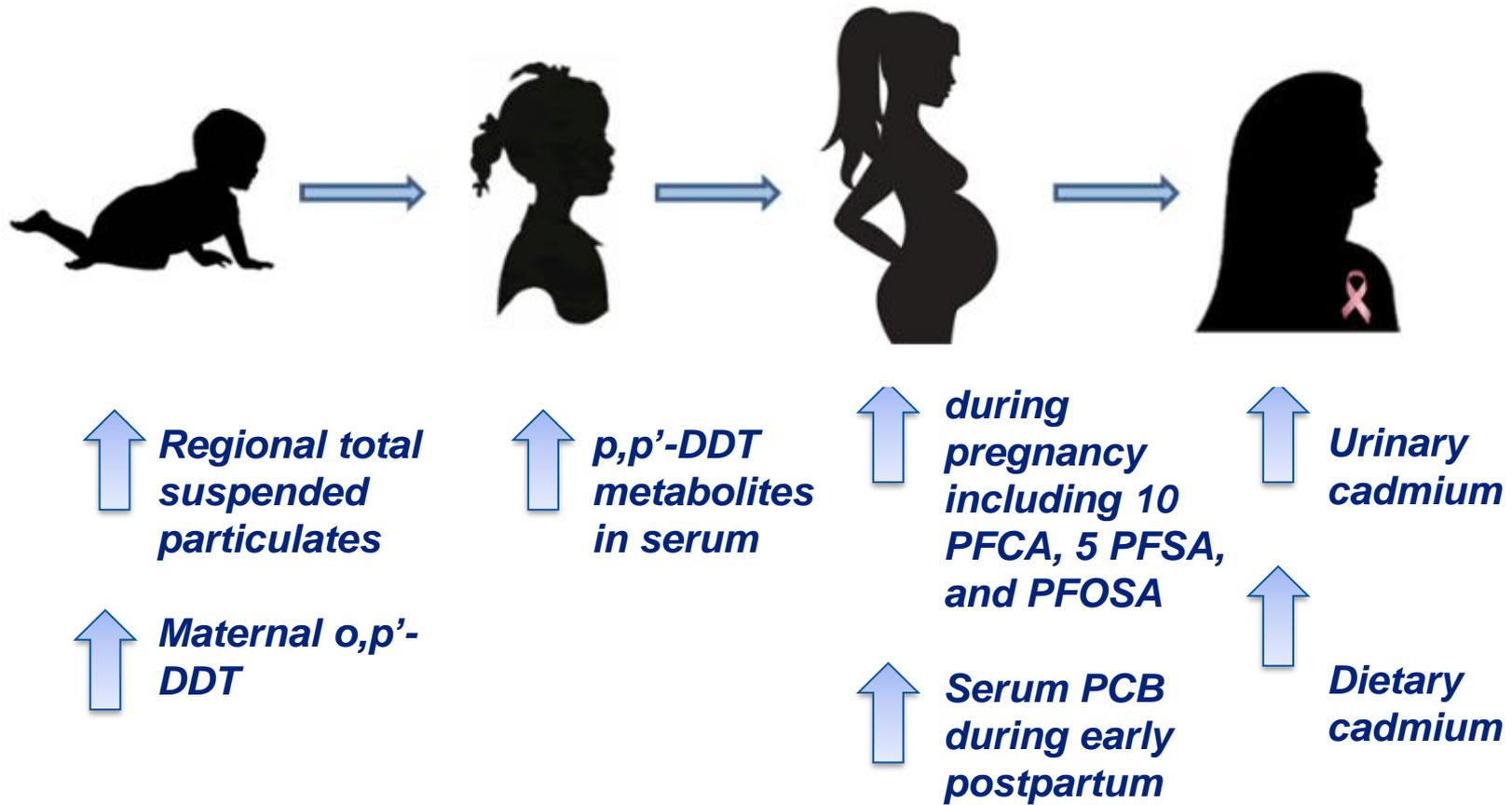
Convening partners

# The Case for Breast Cancer

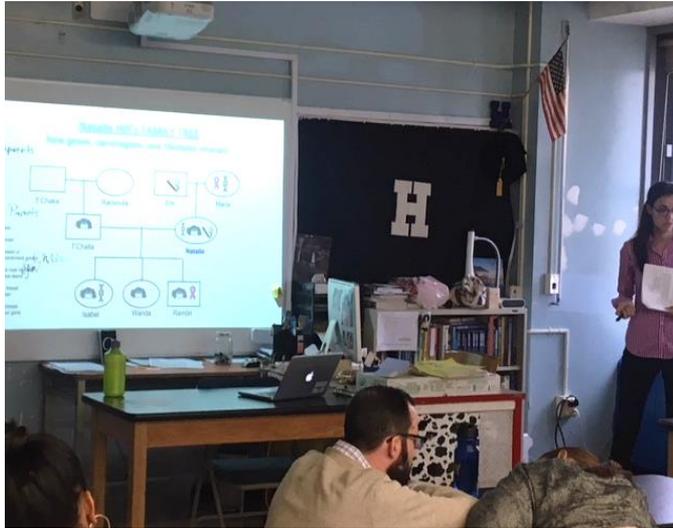
- 1) Most common cancer globally in women
- 2) Breast cancer risk is increased during key windows of susceptibility (WOS)



# When we look at studies specific to susceptible windows and populations, Data are much more consistent



# Cancer Risk Reduction Curriculum



- **Middle and High school students in Northern Manhattan, the Bronx, Staten Island**
- **~ 360 students**
- **Students Questions:**
  - **Familial risk**
  - **Other risk factors they had heard of**
  - **Ideas about actions that would reduce family and community level exposure to common pollutants.**

## Mutations



- A mutation is a **permanent change in the DNA sequence that makes up a gene.**
- Mutations are **common.**
- If a mutation occurs on genes that make a protein, it could cause a change in how the **protein functions.**
- Cancer occurs when a series of mutations are **not fixed by the body**, and the affected cell multiplies out of control.

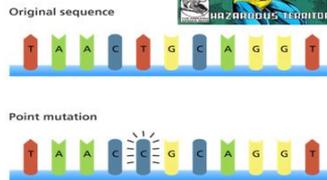
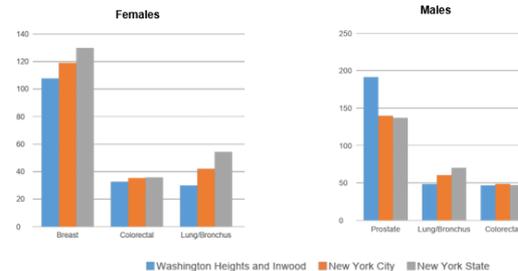


Image: Genome Research Limited. Yourgenome.org

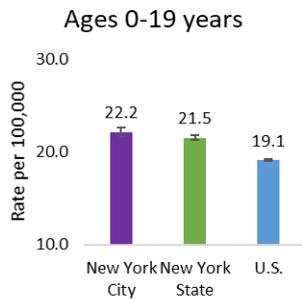
## Community Statistics: Washington Heights/Inwood

New cases (per 100,000 people) every year

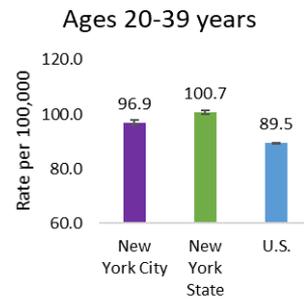


New York State Cancer Registry. Cancer Incidence and Mortality in New York State, 2010-2014  
<http://www.health.ny.gov/statistics/cancer/registry/>, 10.20.17.

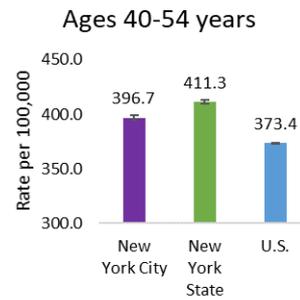
# Age-adjusted cancer rates by age group in New York City, New York State, and the U.S., 2014-2018



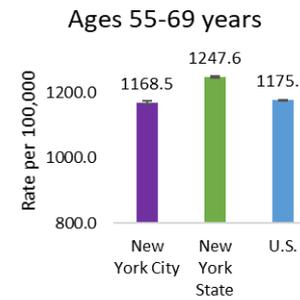
~12.6%  
higher



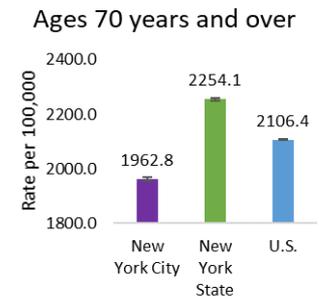
~12.5%  
higher



~10%  
higher



~6% higher



~7% higher

# NEW YORK STATE CANCER CONSORTIUM

## Environmental Carcinogens Action Team

Health providers, scientists, public health representatives and advocates from 19 organizations and institutions with expertise in cancer risk reduction, the health impacts of environmental exposures, environmental modeling and data science.

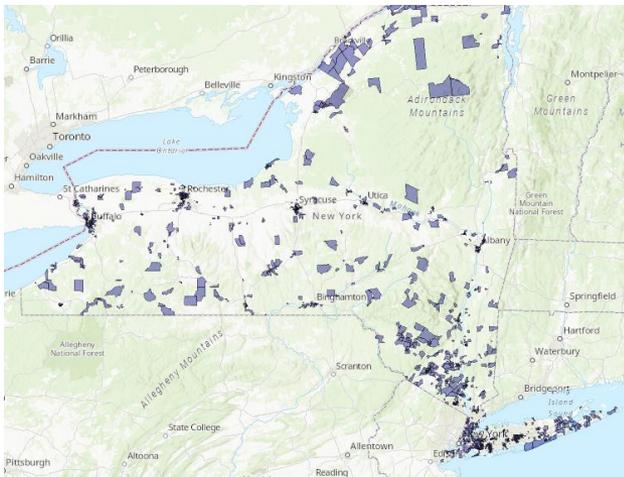
Mission: Reduce the burden of cancer diagnoses from known environmental carcinogens in New York State (NYS) through:

- data monitoring and modeling
- education and outreach



# Communities with unequal burden of chemical exposures

- Based on their neighborhood or where they work
- Brownfields that are used by community members and children
- Siting of polluting facilities in low income and communities of color- residential segregation and location of polluting facilities and highways



A NYS EJ Community has:

- At least 22.8% percent living below the federal poverty line
- At least 52% of population in urban area reported themselves to be part of minority groups
- At least 26% of population in a rural area reported themselves to be part of minority groups

# New York State Environmental Carcinogens Action Team

## **Accomplishments in Year 1**

- Developed a repository of existing education materials from partners across NYS
- Completed inventory of available environmental exposure data sources in NYS
- Completed comprehensive county-level analysis of environmental exposures, behavioral and socioeconomic risk factors, and cancer incidence in NYS
- Developed presentation to be used to inform NY state legislators about cancer trends and environmental carcinogens

Will be working on revising the environmental carcinogens section of the New York state plan in early 2023



# Partnering with Communities of Color and other Underserved Communities

**Darcie Green: Executive Director, Latinas Contra Cancer**

# Who We Are: Latinas Contra Cancer

Latinas Contra Cancer exists to create equitable and just access to health and the healthcare system for the Latino community around issues of cancer and cancer prevention.

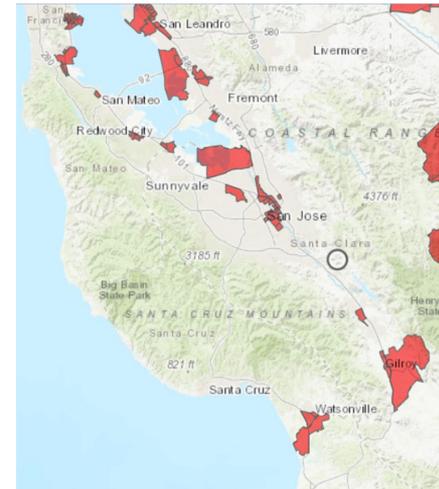
## Services Provided:

- Health Education
- Patient Advocacy
- Survivor Support
- Patient Organizing
- Research & Advocacy



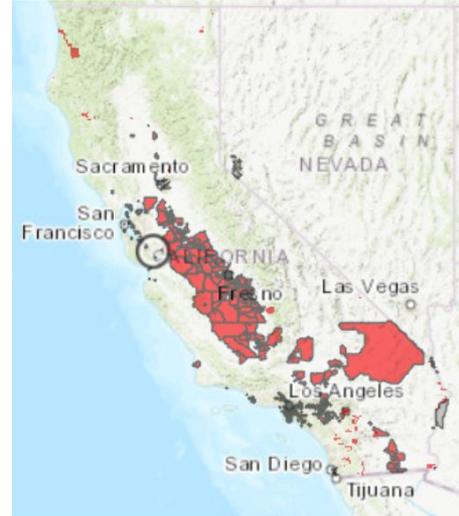
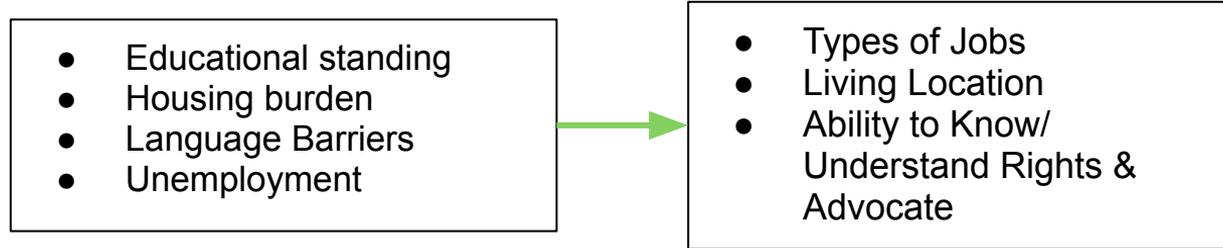
# Who We Serve

- Since **March of 2020**, LCC has pivoted our services to meet the needs of clients who have been left medically and economically harmed by COVID-19 and who have been impacted by the shelter in place ordinance.
- The clients we serve are primarily **Latino, low-income**, most are **Spanish speaking** and many are **undocumented**. Our clients are navigating **sudden income loss**, are unable to pay essential bills and **owe thousands in rent**.
- Some of our clients are **unhoused**. Many of our clients are enduring this while also **navigating a chronic illness** and during a time when access to the **health care system remains inequitable**.
- The clients we serve are more likely to live, work and play in places that have increased environmental exposures.



Underserved Areas in Santa Clara County

# Risk Factors Impacting Environmental Vulnerability



Underserved Areas in  
CA

## Health Inequities leading to Increased Vulnerability:

- **SCC/Bay area Homeless Population:** Living on the street exposure you day and night to potential toxins in urban areas. Especially those who live by highways, train tracks, and main streets.
- **Low income houses:** Individuals may be w/o heating, cooling systems, or air filtration or cannot afford to use it.
- **High-Risk Jobs :** Custodians, Housekeepers, Factory Workers, Mechanics etc.
- **Food Deserts:** Limited Access to Quality Food

# Collaboration of Diverse Groups



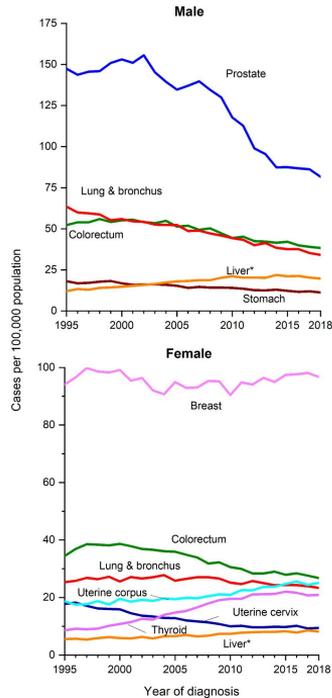
## Benefits:

- Gain a **holistic view** of the problems at hand
- More Views → Higher potential for **diverse solutions**
- ↑ **Effectiveness**: Find solution(s) with **more mutual benefits**

## PH Practitioners Recommend Keeping in mind:

- The best way to access a need is to ask those who are directly affected. We cannot assume we know.

# Burdens of Chronic Disease & Tools for Change



Hispanic Cancer  
Incidence Rates in  
the U.S

## Challenges:

- Obtaining continuous access to **affordable & comprehensive health care**
- Reducing the **negative impacts of Social Determinant of Health**
- **Stay focused on social inequities, income inequalities and racism**

## Strategies and Support :

- Involve **Community Based Organizations (CBOs)**
- Bring Awareness and Advocate for EJ policies which **improve & protect the QOL for low income individuals**
- Support companies **switching to more environmentally friendly cleaning solutions, products, and services.**
- **Reduce the # of neighborhoods near risk sites** (factories, highways, waste sites etc.)
- **Respect and honor the experience and wisdom of the communities most impacted.** They have the solutions. They know what needs to change and their voice should be heard.

# We can make an impact- A grassroots call to action

- **Environmental injustice and these inequalities in exposure are not natural occurrences.**
- **They exist because they are baked into our laws, policies and regulations or they exists because of an absence of laws, policies and regulations protecting vulnerable communities from environmental exposures.**
- **We can as health leaders can lead the change but more importantly we must use our positions of power and resource to hold space for those who have been most impacted by these exposure to lead the solutions.**

# Environmental Health and Impact on Cancer: Policy and Partnership Development

**Cancer and Environment Network of SW PA:** <https://censwpa.org>

**Latinas Contra Cancer:** <https://latinascontracancer.org>

**Breast Cancer Prevention Partners:** <https://www.bcphp.org>

**Cancer Free Economy:** <https://cancerfreeeconomy.org>

**Lowell Center for Sustainable Production:**  
<https://www.uml.edu/research/lowell-center/>

**Cancer Prevention Across the Lifespan**  
<https://chronicdisease.org/page/cancerprograms/cancer-prevention-across-the-lifespan/>

