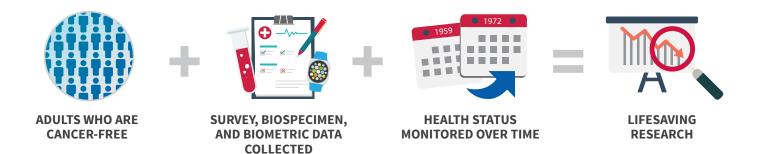


# **Cancer Prevention Studies for a Cancer-free Tomorrow**

The American Cancer Society conducts long-term studies that help us better understand the causes of cancer and how to prevent the disease. These studies have shown how lifestyle, medical, environmental, genetic, and other factors relate to cancer risk and how they ultimately played a role in the 29% drop in cancer death rates between 1991 and 2017.

## **HOW DO WE CONDUCT CANCER PREVENTION STUDIES?**



## WHAT ARE SOME OF OUR STUDIES' FINDINGS AND THEIR IMPACT?



#### **SMOKING**

The 1964 Surgeon General's landmark report concluded that **smoking causes lung cancer**. This finding was based, in part, on our early studies linking smoking with death from lung cancer and other health dangers. Since then, adult smoking rates have declined from over 40% in the mid-1960s to 14% in 2017.



#### **EXCESS BODY WEIGHT**

Cancer Prevention Study-I (CPS-I) revealed the first epidemiologic evidence that **excess body weight increases the risk of premature death**. Findings from CPS-II contributed to the International Agency for Research on Cancer's conclusion in 2016 that excess body fatness increases the risk of 13 different cancers.



#### **ASPIRIN**

CPS-II was the first prospective study to find a link between **regular aspirin use and lower risk of colorectal cancer**, opening the door to more research on aspirin and its effect on the risk of other cancers.



#### **DIET & EXERCISE**

CPS-II findings provided evidence that **adhering to cancer prevention guidelines** for body weight, diet, physical activity, and alcohol intake **is associated with lower risk of premature death** from cancer, cardiovascular disease, and other causes.



### **GENETICS**

Data and biospecimens from CPS-II have contributed to the identification of most of the known genetic susceptibility variants associated with breast, prostate, and pancreatic cancer. This work has led to a better understanding of the role family history plays in these cancers.

## WHO HAS PARTICIPATED IN OUR STUDIES?

1952		1959		1982		2006	
	HAMMOND-HORN 1952-1955	CPS-I 1959-1972		CPS-II 1982-current		CPS-3 2006-current	
	<b>188,000</b> participants	<b>1,000,000</b> participants		<b>1,200,000</b> participants <b>110,000</b> with biospecimens		<b>304,000</b> participants <b>300,000</b> with biospecimens	
	<b>50-69</b> age range at enrollment	<b>52</b> average age at enrollment		<b>57</b> average age at enrollment		<b>47</b> average age at enrollment	
	<b>9</b> states	<b>25</b> states		<b>50</b> states + DC		<b>50</b> states + DC, Puerto Rico	
	<b>22,000</b> recruitment volunteers	<b>68,000</b> recruitment volunteers		<b>77,000</b> recruitment volunteers		<b>30,000</b> recruitment volunteers	

## WHAT'S NEXT FOR THE CANCER PREVENTION STUDIES?



# **Tissue Specimens**

We are collecting tumor tissue specimens to study specific molecular subtypes of colorectal, prostate, blood, ovarian, and breast cancers.



#### **Diet & Cancer**

We're examining dietary patterns throughout life, including meal timing, binge drinking, blood biomarkers of diet, and the gut microbiome (as measured via stool samples) to advance our understanding of how diet influences cancer risk.



## Activity, Sleep, & Cancer

We're collecting survey and monitor-based physical activity data to study the role of different intensities of physical activity, patterns of sedentary behavior, and sleep (including light at night) in relation to cancer risk.



### **Infection & Cancer**

We will assess the role viral and bacterial infections play in altering the risk of leukemia and lymphoma development by studying CPS-II and CPS-3 blood samples.



## **Smoking & Cancer**

We will investigate how e-cigarette use may influence the smoking habits and quit rates of adults who smoke regular cigarettes.



### **Survivorship**

Using information collected both before and after a cancer diagnosis, we will study factors associated with improved quality of life, with the goal of better understanding the unique health effects of cancer among cancer survivors.

#### FIGHTING CANCER ON ALL FRONTS

The American Cancer Society is the nation's preeminent cancer-fighting organization. Our mission is to save lives, celebrate lives, and lead the fight for a world without cancer.



Attacking from every angle."

**Learn More:** cancer.org/cps **Explore Research:** cancer.org/research **Donate:** cancer.org/donate