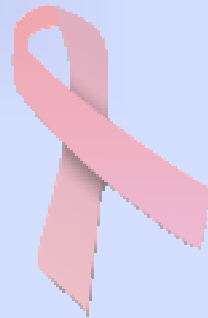


Breast Cancer Policies: A Systems Approach



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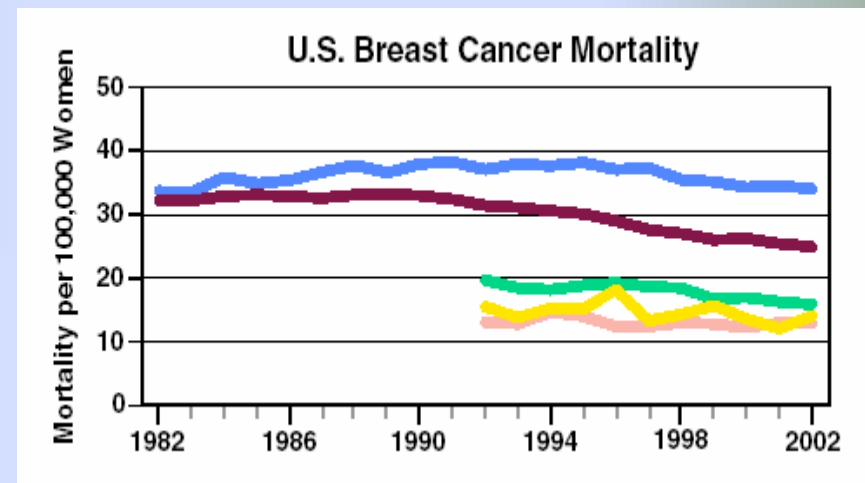
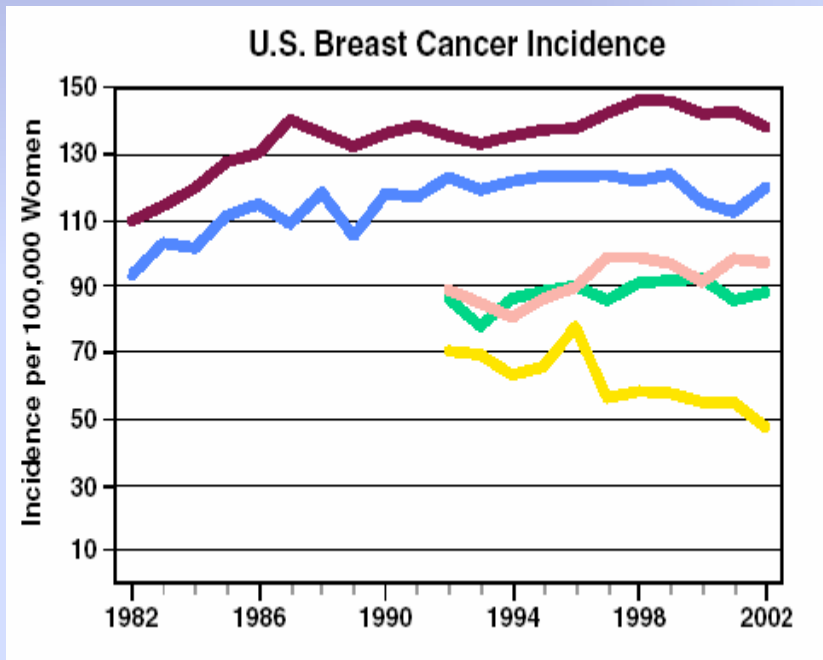
The Issue



- Every 3 minutes a woman is diagnosed with breast cancer.
- Every 12 minutes a woman dies from this disease.
- Breast cancer is the most commonly diagnosed cancer among women.
- Approximately 40,000 women lose their lives to this disease annually.

The Issue

- The incident rate for breast cancer has tripled over the past two decades.

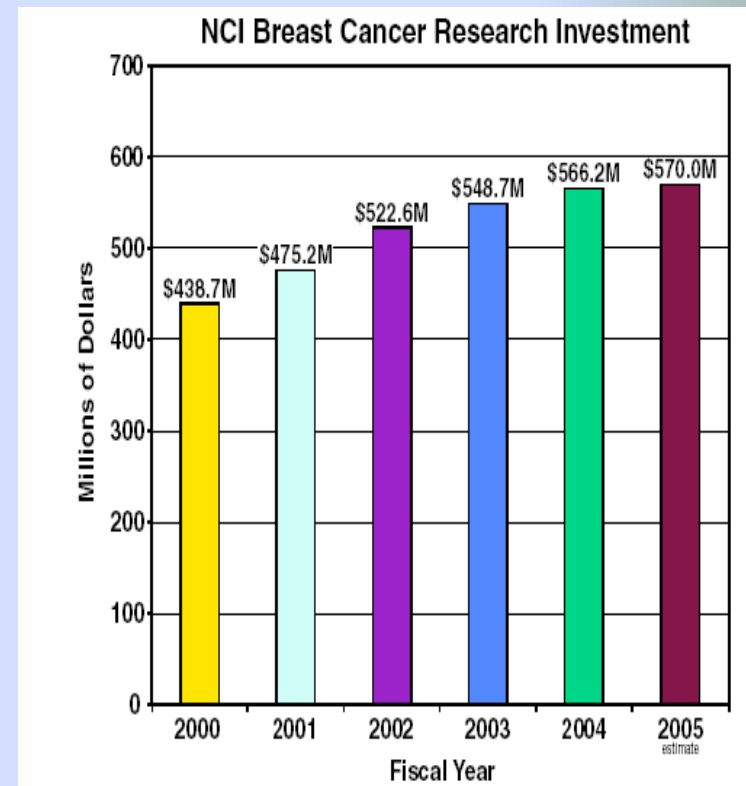


Whites Hispanics* African Americans
Asians or Pacific Islanders* American Indians/Alaskan Natives*

*Incidence and mortality data not available for earlier years.

The Issue

- In the United States, millions of dollars have been spent during the past four decades for breast cancer research
- Research has identified three potential causes for breast cancer: genetics, lifestyle choices and the environment.

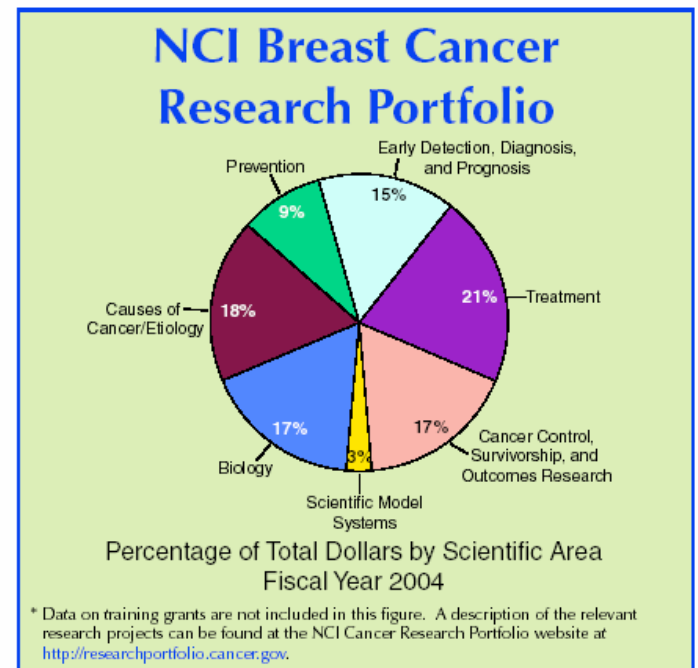


The Issue

Genetics and lifestyle choices contribute to less than 30% of breast cancer cases.

The remaining 70% of all cases can be linked to environmental carcinogens.

Despite this fact, current research funding policies continue to focus on: genetics, lifestyle choice, new screening methods, and medical treatments

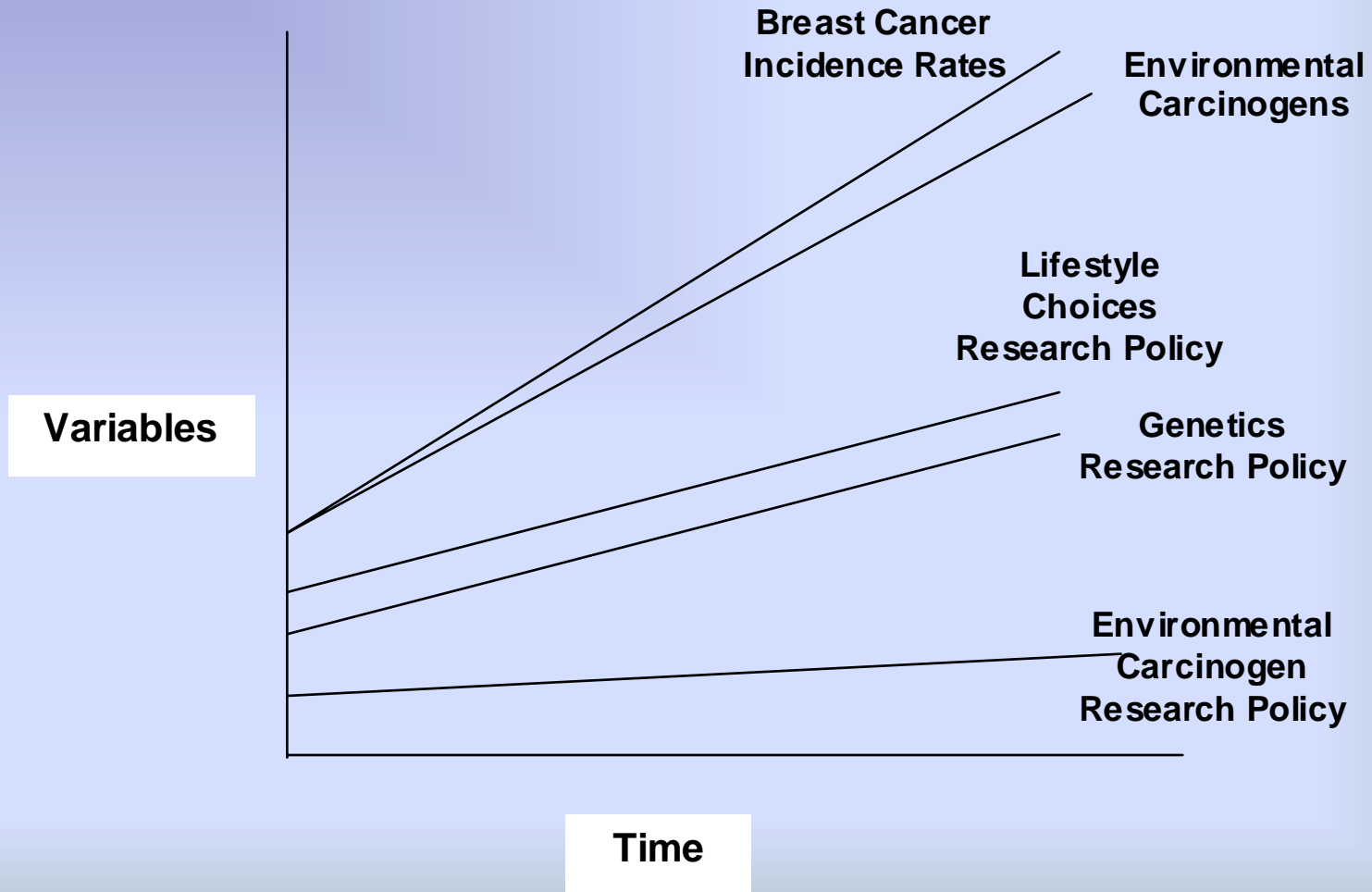


Problem Statement

- Research funding policies systematically exclude funding for research on the role of environmental carcinogens as a cause for breast cancer
- In order to determine how the research funds are being spent and why certain causes receive more funding than others, a Systems Approach needs to be utilized.

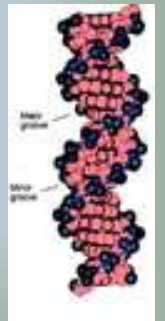


Behavior Over Time



Description of Each Variable

- Lifestyle Choices: defined as smoking, alcohol consumption, diet, exercise, reproductive behavior, and cultural beliefs and social status (Steingraber, 2000 & Epstein 2003).
- Genetics: There is a weak if any link between hereditary and breast cancer, only about 5 to 10 percent of the cases can be linked to genetics (Steingraber, 2000 & Epstein 2003).



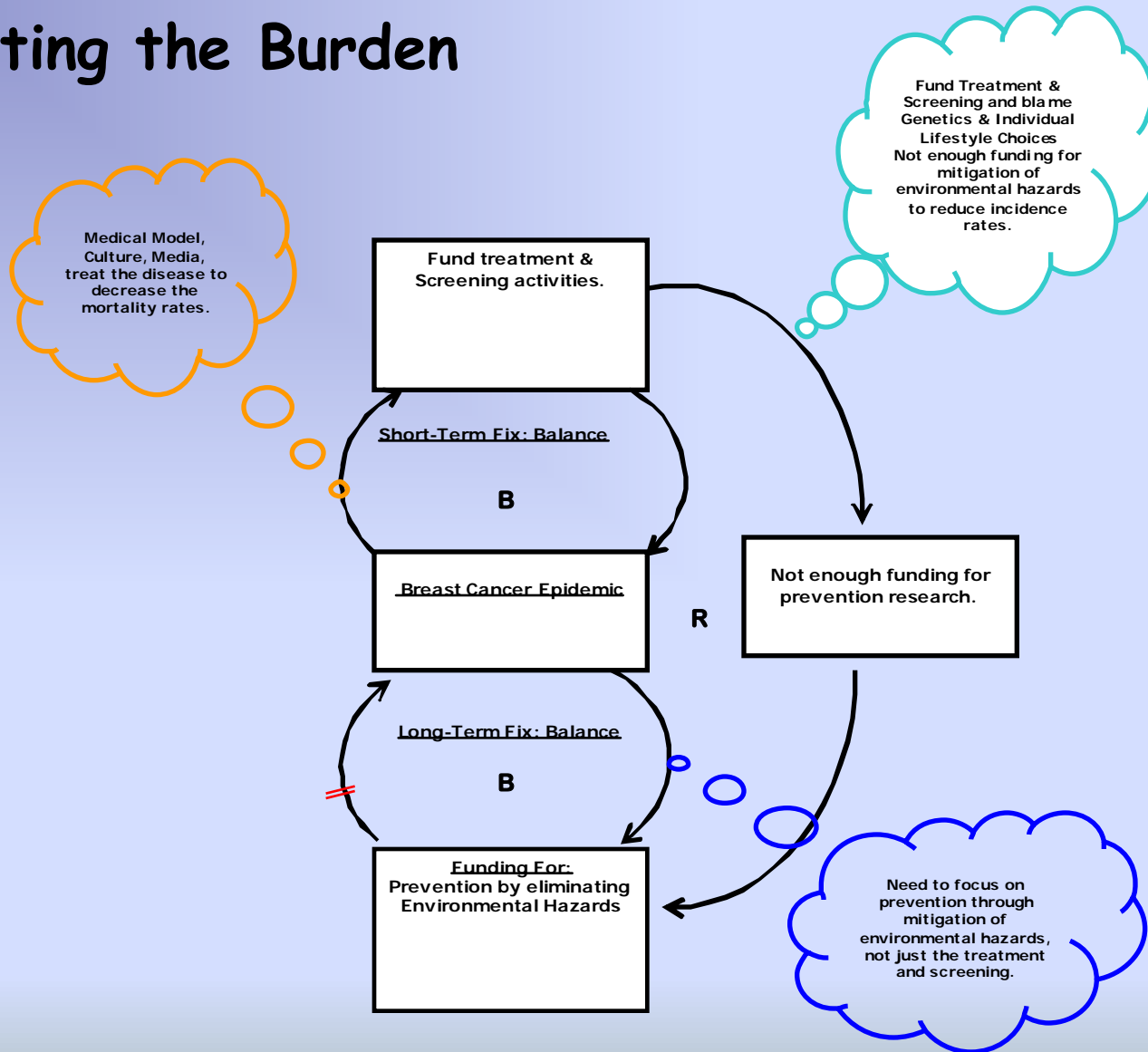
Description of Each Variable



- Environmental Carcinogens: the environment, environmental pollutants and hazards; experimental evidence shows a powerful correlation between the levels of chemicals in the body-the body burden and breast cancer.



Shifting the Burden





National Goals



This project incorporates:

- Three functions of the IOM report
- Three of the four Health Protection Goals
- Goals II, III and VI from the National Strategy to Revitalize Environmental Public Health Services
- The Healthy People 2010 goal of reducing the number of new cancer cases
- Indirectly supports Environmental Health Competency Project





Methodology

- This project involves two phases:
 - 1) Evaluating the existing research funding policies for breast cancer
 - 2) Applying a Systems Approach to these policies to determine what is funded and why
- Due to time constraints, 1 Congressional Hearing was reviewed and coded to determine how the research funding policies were developed



Results



- The hearing entitled “Breast Cancer Research and Development” revealed the following information:
 - 11 people testified
 - more than 50% were physicians
 - the focus of the hearing was increasing funding for research on genetics, screening and treatment
 - the word “environment” was mentioned only twice

AFC

Relatively Stable Parameters:

- 1. Breast Cancer problem.
- 2. Available funding resources.
- 3. Social and cultural values- the need to find a cure.
- 4. Cancer Act and other rules.

External (System) Events

- 1. Changes in Socioeconomic conditions
- 2. Changes in systematic governing coalitions (Republicans & Democrats).
- 4. Policy decisions and impacts from other subsystems.

Constraints & Resources of Subsystem Actors

Policy Subsystem

Coalition: A
Policy beliefs
b. Resource

Coalition: B
a. Policy beliefs
b. Resource

Coalition: C
a. Policy beliefs
b. Resource

Coalition: D
a. Policy beliefs
b. Resource

Coalition: E
a. Policy beliefs
b. Resource

Coalition: Fa.
a. Policy beliefs
b. Resource

Policy Brokers

Strategy A,B,C
Re: guidance instruments

Strategy DEF
Re: guidance instruments

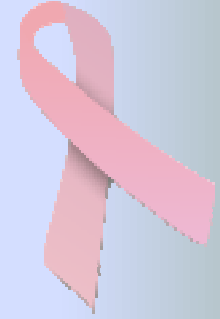
Decisions Made

Agency Resources & General Policy Orientation

Policy Outputs

Policy Impacts

Results



- This initial review and coding reemphasizes:
 - mental models of medical treatment & media and culture
 - blaming the individual, instead of the social processes which produce the environmental carcinogens
 - the lack of conversation about the role of environmental carcinogens
 - “fire-fighting” which leads to damage control instead of prevention.

Conclusions & Next Steps

- The review raised more questions than answers
- Review and code more hearings
- Determine how to control for the mental models that are influencing the current policies
- Collect data to support policy recommendations for research funding about the role of environmental carcinogens on breast cancer incidence

