

# PREVENTION FOR A HEALTHIER AMERICA: Investments in Disease Prevention Yield Significant Savings, Stronger Communities

Richard Hamburg  
Director of Government Relations  
Trust for America's Health



THE URBAN INSTITUTE



# Healthier America Project



Our Vision  
for a  
Healthier America

More than 140 organizations have signed onto  
“A Vision for a Healthier America”


1. We believe prevention must drive our nation’s health strategy.
2. We believe Americans deserve healthy and safe places to live, work, and play.
3. We believe every community should be prepared to meet the threats of infectious disease, terrorism, and natural disasters.
4. We believe Americans deserve to know what government is doing to keep them healthy and safe.

# Prevention for a Healthier America


ISSUE REPORT

## Prevention for a Healthier America:

INVESTMENTS IN DISEASE PREVENTION  
YIELD SIGNIFICANT SAVINGS,  
STRONGER COMMUNITIES



JULY 2008  
PREVENTING EPIDEMICS.  
PROTECTING PEOPLE.



Trust for  
America's Health  
WWW.HEALTHYAMERICANS.ORG

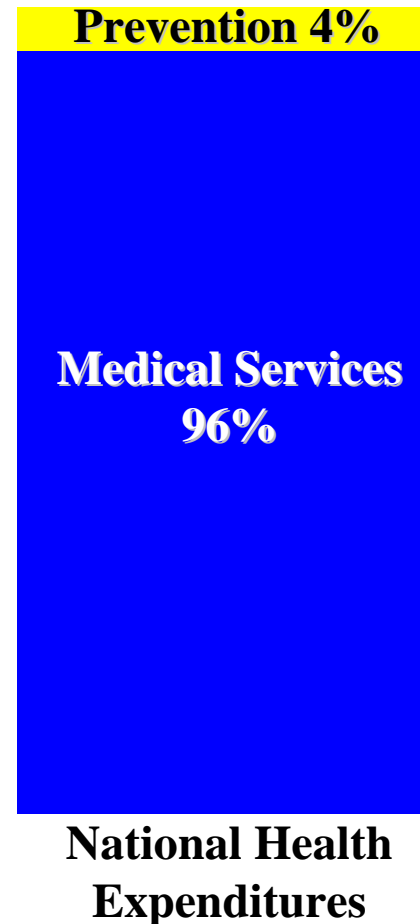
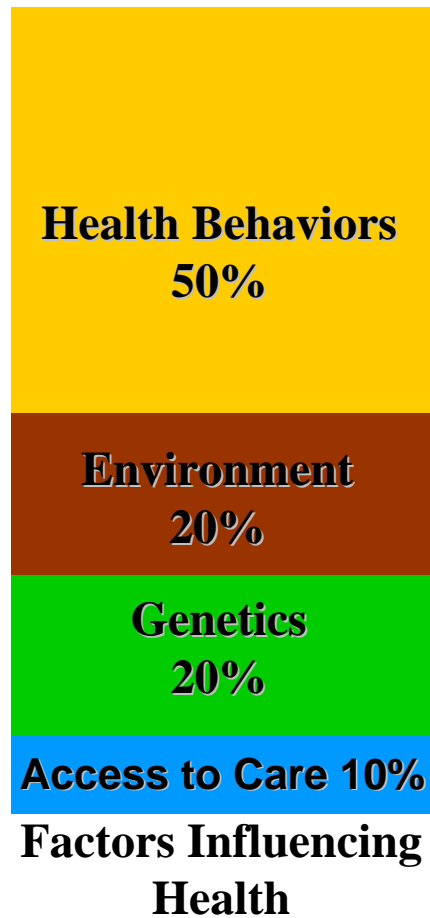


# Prevention for a Healthier America: Financial Return on Investment?

*With a Strategic Investment in Proven Community-Based Prevention Programs to Increase Physical Activity and Good Nutrition and Prevent Smoking and Other Tobacco Use*

<b>INVESTMENT:</b>	<b>\$10 per person per year</b>
<b>HEALTH CARE COST NET SAVINGS:</b>	<b>\$16 Billion annually within 5 years</b>
<b>RETURN ON INVESTMENT (ROI):</b>	<b>\$5.60 for every \$1</b>

# Health Care Spending: \$2.2 Trillion in 2007



SOURCE: CDC, Blue Sky Initiative, University of California at San Francisco, Institute of the Future, 2000

# Focus on Community-Level Prevention Reduces Health Care Costs

- Universal agreement that prevention is a good thing; increases length and quality of life
- Growing evidence that some *clinical* prevention interventions show savings in health care costs
- Clinical interventions – one person at a time
- Community interventions – an entire population (those ill, those at risk, those well)
  - Evidence of savings from some population level interventions (tobacco control, helmet laws, sanitation)

# What is Community-Level Prevention?

- Interventions that promote healthy environments and behaviors – making it easier for people to make healthy choices, such as:
  - Changing community norms and growing community empowerment
    - Coalition and social network building
    - Social marketing campaigns
  - Changing the physical and social environments
    - Organization practices and governmental policies
    - Facilities and programs
    - Walkability – lighting, sidewalks, signs
  - Increasing individual knowledge and skills
    - Health education programs

# Key Findings

---

1. Are there community-level interventions that could reduce chronic disease levels – and thus affect the biggest driver of increased disease, disability, and cost?
  - **Yes.** Regardless of chronic condition targeted, most interventions fell into 4 categories: physical activity, nutrition, obesity, and smoking cessation.
  - Reduced or delayed incidence of disease; mitigation of disease

## Key Findings (2)

---

2. If we increased funding for community-level interventions, we could see a return on investment and more than break even in terms of ROI.
3. Savings can be shown by payer – with private payers and Medicare the biggest “winners.”

# Or Are We Just Delaying High End-of-Life Costs?

- Compression of morbidity: extending healthy life expectancy more than total life expectancy – literally compressing *chronic disease and disability* into a smaller proportion of life
  - Primary prevention delays or prevents disability vs. management of disability (current focus of health care system)
    - Preventing obesity – delaying or avoiding a knee replacement
    - Managing disability – providing a knee replacement
    - Obesity results in more chronic conditions, but not shorter life

# Focus of the Model

## **Diseases**

- Expensive
- Chronic
- Amenable to community-based prevention

## **Interventions**

- Type of intervention
- Effect on disease
- Associated costs

# Most Expensive Conditions

---

- Heart disease
- Cancer
- Trauma
- Mental disorders
- Pulmonary conditions
- Diabetes
- Hypertension
- Cerebrovascular disease
- Arthritis
- Pneumonia
- Kidney disease
- Endocrine disorders
- Skin disorders
- Back problems
- Infectious diseases

# Priority Conditions

---

- Heart disease
- Cancer (selected)
- Trauma
- Mental disorders
- Pulmonary conditions (selected)
- Diabetes
- Hypertension
- Cerebrovascular disease
- Arthritis
- Pneumonia
- Kidney disease
- Endocrine disorders
- Skin disorders
- Back problems
- Infectious diseases

# Data Analysis

---

## □ Data

- Medical Expenditures Panel Survey (MEPS), pooled 2003-2005 (adults only, excludes nursing home care)

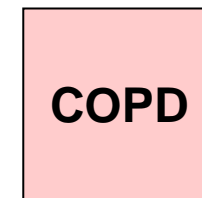
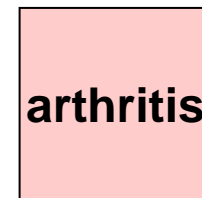
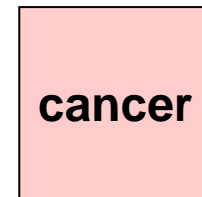
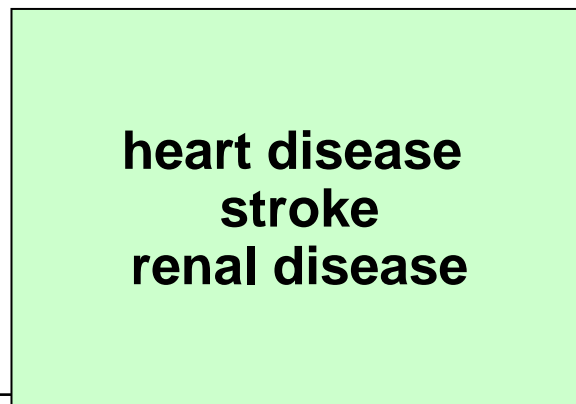
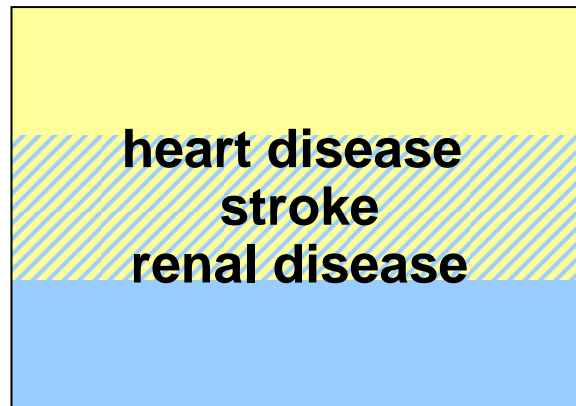
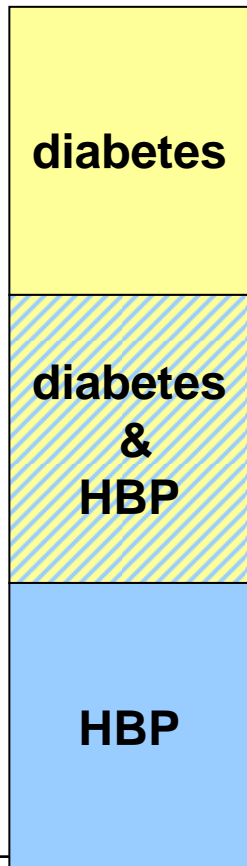
## □ Methods

- Regression analysis to predict expenditures
  - by disease cluster
  - by disease trajectory
  - by payer

# Disease Clusters-Intervention Pathways:

Short Run                      Medium Run                      Long Run

Physical activity, obesity, nutrition, smoking cessation



# Effect of Interventions

---

- We assume a sustained reduction in the prevalence of diabetes and hypertension
- Modeled as a one-time permanent change in response to an ongoing community-level intervention
- We also assume a steady state population
- In the current iteration of the model, we have not yet taken into account changes in mortality

# Plausible Intervention Effect

---

- Literature review offers a broad range of impact of community interventions
  - Literature supports that interventions can have an impact of 10%, but we modeled a 5% impact to be conservative (2.5% for cancers)
  - Literature does not consistently present data to make comparisons across interventions

# Cost-Benefit

---

- Data are variable regarding per capita costs of interventions.
  - Range in the literature is quite wide.
  - For the purpose of this exercise, we are assuming an average of \$10 per capita to be very conservative and to permit a group of interventions to be introduced, including some that might be targeted and higher cost.

## Net Savings: 5% Impact at \$10 Per Capita Cost (in Millions) (in 2004 dollars)

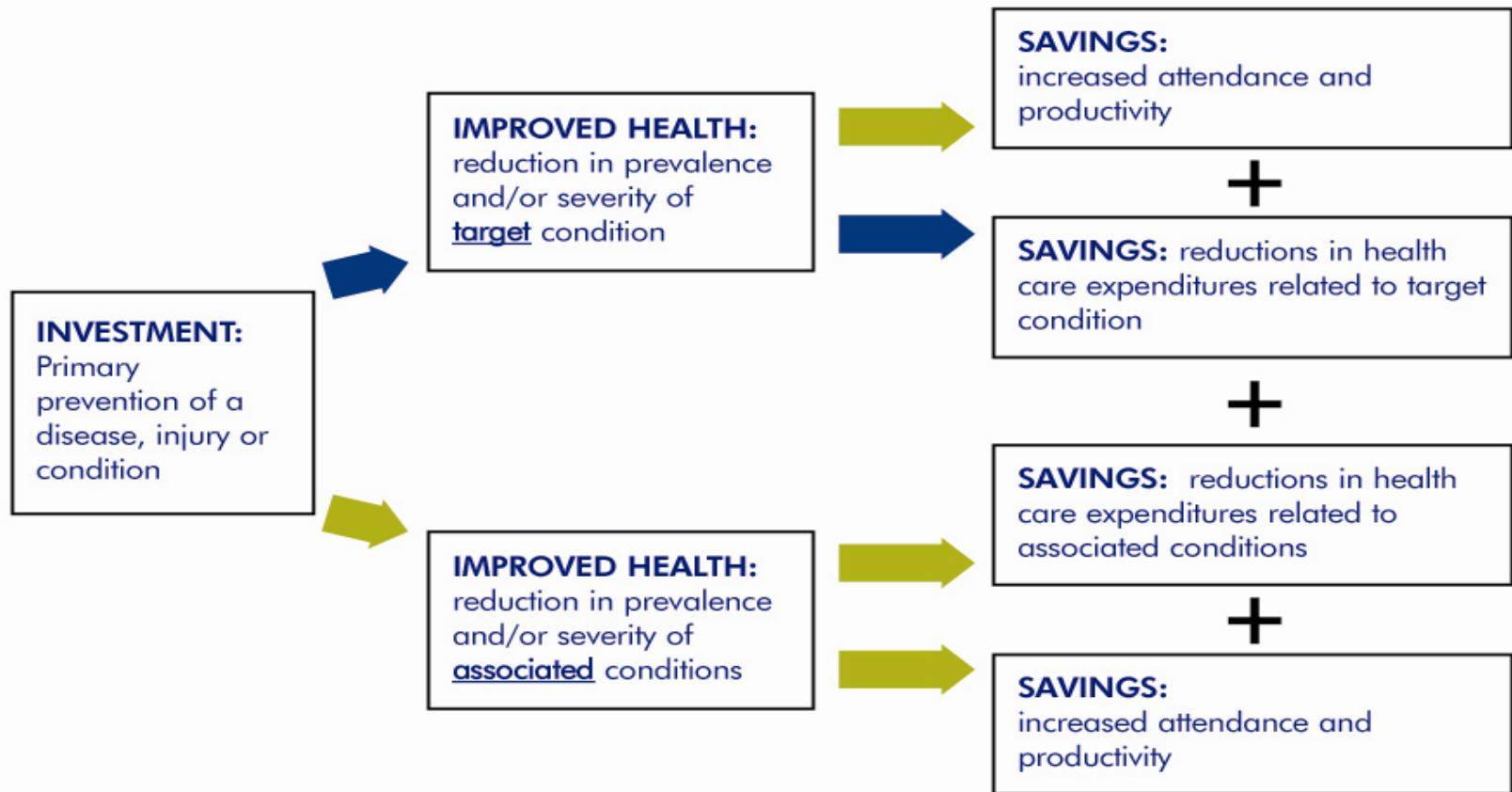
	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>U.S. (Mid-term ROI: 5.60:1)</b>			
<b>Care Cost Savings</b>	\$5,784	\$19,479	\$21,387
<b>Intervention Costs</b>	\$2,936	\$ 2,936	\$ 2,936
<b>Net Savings</b>	<b>\$2,848</b>	<b>\$16,543</b>	<b>\$18,451</b>

Short Run: 1 to 2 Yrs. • Medium Run: 5 Yrs. • Long Run: 10 to 20 Yrs.

## Net Savings By Payer: 5% Impact at \$10 Per Capita Cost (in 2004 dollars)

	1-2 Years	5 Years	10-20 Years
Medicare	\$487 million	\$5.213 billion	\$5.971 billion
Medicaid	\$370 million	\$1.951 billion	\$2.195 billion
Private payers/Out of Pocket	\$1.991 billion	\$9.380 billion	\$10.285 billion

# Multiplier Effect



# Limitations

---

- Limited data on sustainability and scalability – hence the assumption that only a one-time effect even though intervention sustained over time. (Or new interventions introduced over time.)
- Model calculates savings from reductions in prevalence; other models look at stemming the rise.
- Savings in 2004 dollars, though costs have risen.
- Model incorporates marginal cost of interventions, not the cost of basic infrastructure.

# Contributors

---

- Trust for America's Health
  - Jeff Levi, Chrissie Juliano, and Sherry Kaiman
- New York Academy of Medicine
  - Ruth Finkelstein, Gabriel Cohen, Ana Garcia, and Julie Netherland
- Prevention Institute
  - Larry Cohen, Jeremy Cantor, and Janani Srikantharajah
- The Urban Institute
  - Barbara Ormond, Brenda Spillman, Timothy Waidmann, and Bogdan Tereshchenko

# Policy Implications (1)

---

## □ Messages:

- Community-level prevention needs to be equal partner with screening and clinical prevention
  - You cannot do health reform (or afford it) without addressing community *and* clinical prevention
  - Assessing community prevention – as norm changing and behavior change – may require a different form of economic analysis
- Certain prevention interventions *can* save money
- Polling shows the public is willing to invest in prevention

# Policy implications (2)

---

- Need to identify creative ways to finance community-level prevention
  - Contributions from those payers who benefit
    - Health reform – all funding options should be in play
    - Wellness Trust – a model for bringing all resources to the table for prevention; expand to include community prevention
    - Medicare, Medicaid demonstrations
    - Federal mandatory/discretionary public health funding
    - State level – funding, community trusts, health reform

# Policy implications (3)

---

- Structure of delivery of “public health” interventions is very different for community-level interventions
  - Community makeover grants
  - Pioneering healthier communities