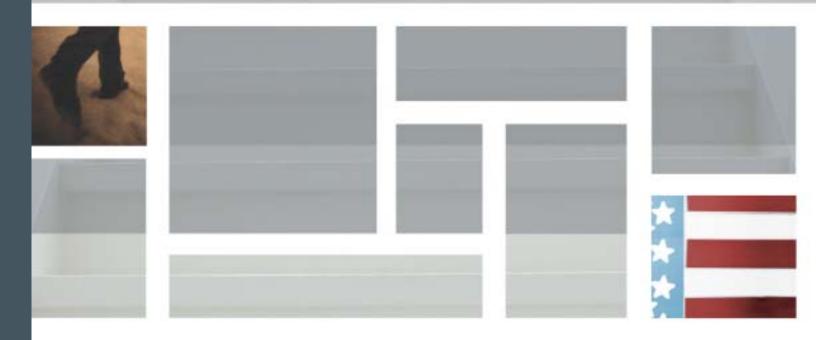
### STEPS TO A HEALTHIER US: A PROGRAM AND POLICY PERSPECTIVE



### The Power of Prevention





#### **FOREWORD**

As public policy makers, we seek compelling arguments to drive our decisions—arguments that show our actions will have short- and long-term benefits. I am convinced that preventing disease by promoting better health is the only smart policy choice for our future.

President Bush is convinced, too. He created *HealthierUS*, an initiative to improve the health of all Americans by providing credible, accurate information to help us live healthier lives.

In support of the President's initiative, I am leading a new department-wide effort—*Steps to a HealthierUS*. The heart of this program is personal responsibility for the choices Americans make and social responsibility to ensure that policy makers support prevention programs that foster healthy behaviors.

Steps envisions a healthy, strong United States—where diseases are prevented when possible, controlled when necessary, and treated when appropriate. Steps is a bold shift in our approach to the health of our citizens, moving us from a disease care system to a health care system. As this document demonstrates, we can no longer sustain the skyrocketing health care costs that over-reliance on treatment has created, nor can Americans sustain the suffering that preventable diseases cause.

Please take a few minutes to read this volume and consider our case for strengthening the emphasis on prevention in America. If you have seen the light of prevention, please use this document as a tool to bring other leaders in your community along as we take steps to a healthier US.

Tommy G. Thompson
Secretary of Health and Human Services
U.S. Department of Health and Human Services

# The Power of Prevention



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

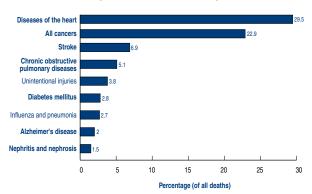
#### WE FACE AN EPIDEMIC OF UNPARALLELED PROPORTIONS . . .

More than ever, it is critical that we, as a nation, step up prevention efforts to fight chronic disease. In recent years, we have become increasingly aware of the burden of illness and death caused by chronic diseases such as cancer, diabetes, heart disease, stroke, and obesity, and of the connection between these chronic diseases and lifestyle choices such as tobacco use, poor diet, and lack of exercise. Despite this awareness, however, we are in the midst of a chronic disease epidemic of unparalleled proportions. This epidemic is fueled both by the aging of the U.S. population and by the poor lifestyle choices that Americans continue to make.

These hard facts substantiate the health crisis that chronic diseases have created in the United States:

- More than 1.7 million Americans die of a chronic disease each year, accounting for about 70% of all U.S. deaths.
- Five chronic diseases—heart disease, cancer, stroke, chronic obstructive pulmonary disease (e.g., asthma, bronchitis, emphysema), and diabetes—cause more than **two-thirds of all deaths** each year.
- Chronic disease is not just an issue among older adults. One-third of the years of potential life lost before age 65 is due to chronic disease.

Figure 1. Most Common Causes of Death, United States, 2000

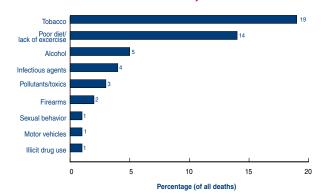


Boldface type indicates chronic disease or condition.

Source: National Center for Health Statistics. *Mortality Report*.

Source: National Center for Health Statistics. *Mortality Report*. Hyattsville, MD: U.S. Department of Health and Human Services, 2002.

Figure 2. Actual Causes of Death, United States, 1990



Source: McGinnis JM, Foege WH. Actual causes of death in the United States. *JAMA* 1993; 270:2207–12

The number of deaths alone, however, fails to convey the full picture of the toll of chronic disease. More than 125 million Americans live with chronic conditions, and millions of new cases are diagnosed each year. These serious diseases are often treatable but not always curable. Thus, an even greater burden befalls Americans from the disability and diminished quality of life resulting from chronic disease.

Chronic, disabling conditions cause major limitations in activity for 1 of every 10 Americans, or 30 million people.

- Arthritis or chronic joint symptoms is the number one cause of disability, affecting nearly 1 of every 3 adults in the United States.
- Stroke has left 1 million Americans with disabilities; many can no longer perform daily tasks, such as walking or bathing, without help.
- **Diabetes** is the leading cause of kidney failure and of new blindness in adults. More than 60% of leg and foot amputations unrelated to injury are among people with diabetes.
- Asthma causes 400,000–500,000 hospitalizations, 14 million missed school days, and 100 million days of restricted activity each year.

Almost every American is adversely affected by chronic disease in one way or another—through the death of a loved one; a family member's struggle with lifelong illness, disability, or compromised quality of life; or the huge personal and societal financial burden wrought by chronic disease.

## When we measure our nation's health, by the length of life or by the quality of that life . . .

... we cannot afford to ignore the urgency of chronic disease.

#### HEALTH CARE SPENDING IS ON THE RISE ...

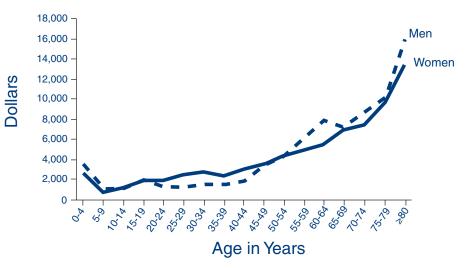
Our nation spends more on health care than any other country in the world. In 1980, the nation's health care costs totaled \$245 billion—an average of \$1,066 for each American. In 2001, the total health care cost was an astounding \$1.4 trillion. This is an average of \$5,035 for each American.

Chronic disease accounts for roughly 75% of health care costs each year. According to the latest available figures,

- The estimated cost of cardiovascular disease and stroke in 2003 is \$351.8 billion. Of this amount, \$209.3 billion is due to direct medical costs and \$142.5 billion to lost productivity.
- In 2000, the total cost of **obesity** was estimated to be \$117 billion. Of this amount, \$61 billion was due to direct medical costs and \$56 billion to lost productivity.
- The estimated cost of **cancer** in 2002 was \$171.6 billion. Of this amount, \$60.9 billion was due to direct medical costs and \$110.7 billion to lost productivity.

- The estimated cost of diabetes in 2002 was \$132 billion. Of this amount, \$91.8 billion was due to direct medical costs and \$39.8 billion to lost productivity.
- The estimated cost of arthritis in 1995 was \$82 billion. Of this amount, more than \$22 billion was for direct medical care and \$60 billion for lost productivity.
- The cost of asthma to the U.S. economy in 1998 was estimated to be \$12.7 billion.

Figure 3. Estimated Per Capita Health Expenditures, by Age and Sex, 1995



Source: From Baby Boom to Elder Boom: Providing Health Care for an Aging Population. Washington, DC: Watson Wyatt Worldwide, 1996.

#### Chronic disease risk factors also place huge economic demands on our nation.

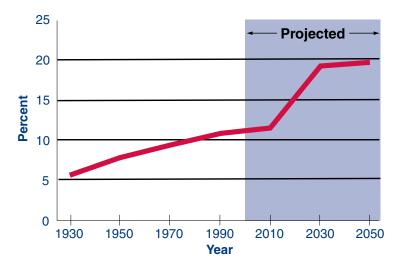
- Direct medical expenditures attributed to **smoking** total more than \$75 billion per year. In addition, smoking costs an estimated \$80 billion per year in lost productivity.
- In 2000, health care costs associated with **physical inactivity** were more than \$76 billion.
- Each year, over \$33 billion in medical costs and \$9 billion in lost productivity due to heart disease, cancer, stroke, and diabetes are attributed to **poor nutrition**.

### Why is health care for chronic disease so costly?

Because of breakthroughs in science and technology and improvements in environmental and social conditions, Americans are living longer than ever before. In 1950, the average life expectancy was 59 years; today it is nearly 77 years.

The percentage of the population over age 65 has grown dramatically and will continue to do so. Since 1900, the number of people in America aged 65 years or older has increased 11-fold, from more than 3 million to nearly 35 million. The number of Americans aged

Figure 4. Percentage of U.S. Population Over 65 Years of Age



Source: From Baby Boom to Elder Boom: Providing Health Care for an Aging Population. Washington, DC: Watson Wyatt Worldwide, 1996.

65 years or older is expected to double to 70 million people over the next 30 years. Because older adults typically require more health care than their younger counterparts, medical costs will increase as the population ages. Health care expenditures for a 65-year-old are now 4 times those of a 40-year-old. By 2030, health care spending will rise by 25%, before taking inflation or new technologies into account, simply because more Americans will be older.

We have also experienced a recent explosion in health care technology. We point proudly to the past century's advancements in medical technology, many of which have enabled better diagnosis and treatment. However, these advances do not come cheaply; in fact, they account for about 60% of the increased cost of health care.

Inflation has also taken its toll on rising health care costs, adding another 20% to the total bill.

## If current policies and conditions hold true, by the year 2011, our nation will be spending over \$2.8 trillion on health care . . .

... we cannot afford this escalating cost.

#### THE POWER OF PREVENTION ...

Although chronic diseases are among the most common and costly of all health problems, they are also among the most preventable. The following examples show what targeted investments in prevention can achieve:

• About 90% of middle-aged Americans will develop high blood pressure in their lifetime, and nearly 70% of those who have it now do not have it under control. Lowering blood pressure levels reduces risk of death from coronary heart disease, stroke, and total cardiovascular disease.

Access to high-quality and affordable prevention measures (including screening and appropriate follow-up) is essential if we are to save lives and reduce medical care costs.

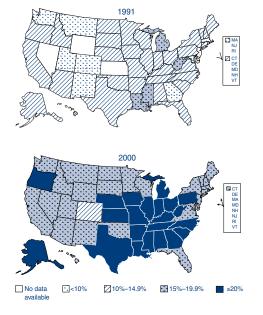
- Regular screening for colorectal cancer can reduce the number of people who die of this disease by at least 30%. Regular mammograms can dramatically reduce a woman's risk of dying of breast cancer. A mammogram every 1–2 years can reduce this risk by about 16% for women aged 40 years or older.
- Preventive efforts can benefit the 17 million Americans with type 1 or type 2 diabetes. Research has shown that improved glycemic control leading to a 1% reduction in results of A1C blood tests reduces the risk of developing microvascular diabetic complications (eye, kidney, and nerve disease) by 40%. Regular eye exams and timely treatment could prevent up to 90% of diabetes-related blindness. Health care services that include regular foot examinations and patient education could prevent up to 85% of diabetes-related amputations.

 People who are obese (body mass index ≥ 30) have a 50% to 100% greater risk of premature death from all causes than do people at a healthy weight.

Three modifiable health-damaging behaviors—tobacco use, lack of physical activity, and poor eating habits—are responsible for much of the inordinate suffering and early death of millions of Americans. In fact, approximately 33% of all U.S. deaths (about 800,000 deaths each year) can be attributed to these behaviors. Additionally, alcohol consumption, mainly heavy drinking, is associated with 5% of these deaths. Tremendous achievements in health are possible if we focus on the risk factors that underlie chronic disease.

• The health benefits of quitting smoking are numerous, and many are experienced quickly. Within several months, coughing and other respiratory symptoms decrease and lung function increases. One year after quitting, excess risk for heart disease is reduced by half; risk for stroke is reduced after 5 years of not smoking. Ten years after quitting, the lung cancer death rate is about half that of a current smoker; 15 years after

Figure 5. Percentage of Adults Who Are Obese,\* by State



\*Body mass index ≥ 30, or ~ 30 pounds overweight for a 5' 4" person.

Source: CDC, Behavioral Risk Factor Surveillance System.

quitting, an ex-smoker's risk for heart disease is about the same as that of a lifelong nonsmoker.

- Lifestyle changes in diet and exercise to promote losses of 5% to 7% in body weight can prevent or delay the onset of type 2 diabetes for Americans at high risk for the disease—those defined as prediabetic. Participants in a major clinical trial group exercised at moderate intensity, usually by walking an average of 30 minutes a day, 5 days a week, and lowered their intake of fat and calories. Their efforts resulted in an average weight loss of 10–15 pounds, reducing their risk for diabetes by 58%.
- Regular physical activity helps control weight and reduces a person's risk for heart attack, colon
  cancer, diabetes, and high blood pressure. Physical inactivity is a leading contributor to disease
  and disability, accounting for 22% of colon cancer, 18% of osteoporotic fractures, and 12% of
  diabetes and hypertension.
- Increased consumption of fruits and vegetables helps reduce the risk for heart disease and certain cancers.

If we are serious about improving the health and quality of life of Americans AND keeping our health care budget under control . . .

... we cannot afford to ignore the power of prevention.

#### A Vision for Prevention

Despite the evidence that prevention works, the focus in our health care system over the past century has not been on prevention of chronic disease, but on treatment of short-term, acute health problems. As a nation, we have emphasized expensive cures for disease rather than cost-effective prevention. In addition, our health care

Prevention is the right cause, the right issue, the right time.

—Tommy G. Thompson

Secretary, U.S. Department of Health and Human Services

system is not designed to meet the needs of people with chronic illnesses.

At the heart of our system is the traditional physician-patient interaction. While effective, these interactions occur infrequently at best and typically last no longer than 30 minutes every several months. Whether sick or well, a person spends far more time making independent decisions—outside of the physician's office—that affect his or her health and does so with minimal training or information. This is particularly true for the 40.5 million uninsured Americans under the age of 65,

who have very limited access to health care services.

With a community-based public health infrastructure that embraces prevention as a priority, we can become a healthier nation. Many Americans could enjoy 5–7 additional years of healthy life and avoid the costs associated with chronic disease if we improve access to quality health care services, emphasize healthy behavior, and focus on broad policies and strategies that

The function of protecting and developing health must rank even above that of restoring it when it is impaired.

—Hippocrates

offer the greatest good for the greatest number of people at the lowest cost.

The U.S. Department of Health and Human Services (HHS), through its many agencies, has a vision of a nation in which all people lead long, healthy, satisfying lives in an increasingly diverse

society. To realize this vision, we must harness the collective capacity and energy of families, communities, health care professionals, voluntary and professional organizations, the private sector, other governmental agencies, and academic institutions. HHS is leading the nation to a healthier future through its new initiative, Steps to a HealthierUS.

#### U.S. Department of Health and Human Services Agencies

- Administration for Children and Families (ACF)
- Administration on Aging (AoA)
- Agency for Healthcare Research and Quality (AHRQ)
- Centers for Disease Control and Prevention (CDC)
- Centers for Medicare & Medicaid Services (CMS)
- Food and Drug Administration (FDA)
- Health Resources and Services Administration (HRSA)
- Indian Health Service (IHS)
- National Institutes of Health (NIH)
- Substance Abuse and Mental Health Services Administration (SAMHSA)

#### STEPS TO A HEALTHIER US

At the heart of the *Steps to a HealthierUS* initiative lie both personal responsibility for the choices Americans make and social responsibility to ensure that policy makers support programs that foster healthy behaviors and prevention. These steps include

### Promote health and wellness programs at schools and work sites and in faith- and community-based settings.

Developing chronic diseases is not an inevitable consequence of aging; in many cases, their origins are grounded in health-damaging behaviors practiced by people every day for much of their lives. Evidence indicates that with education and social support, people can and will take charge of their health. The national agenda must call for programs that focus on individual responsibility and behavior change, such as the following:

- School health programs that provide environments and instruction that promote healthy eating, daily physical activity, and the avoidance of tobacco, alcohol, and illicit drugs.
- Smoking cessation strategies, such as improved access to quit lines, improved insurance coverage of smoking cessation services, and greater involvement of health providers and health care systems in the routine delivery of cessation advice and services to patients who want to quit smoking.
- Physical activity strategies such as motivational signs and reminders placed near elevators and escalators encouraging the use of stairs for health benefits or weight loss.
- Faith- and community-based programs that bring together community health advisors, nurses, and church representatives to support, encourage, and help people to obtain cancer-screening services and to navigate the health care system.

#### Enact policies that promote healthy environments.

Policy and environmental changes can affect large segments of the population simultaneously. Adopting healthy behaviors is much easier if we establish supportive community norms and health policies. The national agenda must call for proven health promotion measures such as

- Safe walking and cycling trails.
- Low-fat/high-fruit-and-vegetable menu selections in restaurants, schools, and employee cafeterias.
- Incentives to schools for physical education.
- Smoke-free policies in workplaces and public areas.
- Universal availability of 911 emergency services for stroke and heart attack care.

#### Ensure access to a full range of quality health services.

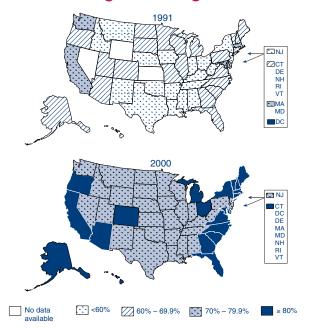
Physicians and other health care practitioners play a critical role in providing chronic disease screening and early detection services. They are also uniquely positioned to influence patients to adopt healthy behaviors that help prevent chronic disease. The national agenda must call for

- Improved access to effective screening and diagnostic tools for breast, cervical, and colorectal cancers; diabetes; high blood pressure; and high cholesterol.
- Better training and education of health care professionals to close the gap in time between discovering effective prevention tools and strategies and applying these tools in medical practice.
- Public and private health insurance programs that provide appropriate chronic disease prevention, screening, and treatment services.
- Training to empower patients to manage their chronic conditions effectively.

# Implement programs that focus on eliminating racial, ethnic, and socioeconomic-based health disparities.

Of utmost importance is a constant vigilance to reduce health disparities among racial and ethnic groups. These disparities are reflected in

Figure 6. More Women at Risk Are Having Mammograms\*



\*Percentage of women 50 or older who reported they had a mammogram within the previous 2 years.

Source: CDC, Behavioral Risk Factor Surveillance System.

differences in length of life; rates of disease, disability, and death; severity of disease; and access to treatment.

- In 1999, death rates from heart disease were 29% higher and death rates from stroke were 40% higher among African American adults than among white adults.
- American Indians and Alaska Natives are 2.6 times more likely, African Americans are 2 times more likely, and Hispanics are 1.9 times more likely to have diagnosed diabetes than whites.
- African American women are more likely to die of breast cancer than are women of any other racial or ethnic group.
- Nearly half of African American women are classified as obese.

Prevention research is needed to identify the causes of health disparities and the best ways to provide access to high-quality preventive care and clinical services. Effective programs will require new and innovative partnerships among federal, state, local, and tribal governments and communities.

#### Educate the public effectively about their health.

Scientific evidence indicates the public listens to and acts on clear, compelling health information. We must use communication strategies to inform and influence individual and community decisions on health. Scientific approaches to social marketing, health education, and consumer research must be applied to public health initiatives—everything from simple brochures to public service announcements to comprehensive media campaigns. We must market health effectively, just as corporations market their products and images.

#### MEETING THE CHALLENGE

At the turn of the 20<sup>th</sup> century, the major causes of illness and death were infectious diseases such as pneumonia, influenza, and tuberculosis. Thanks to vaccines, environmental and social improvements, and technological developments, these diseases pose a much smaller threat to the health of our nation.

This same accomplishment is possible for chronic disease. As a nation, we have the capability and the expertise to meet the unique challenges of the leading causes of death, disease, and disability. Now we need a concerted, focused effort to apply what we know about prevention and treatment.

The national prevention agenda is clear. With the collective will for its implementation, HHS and a host of public and private organizations joined in spirit and vision can lead the nation to a day when preventable disease is yet another chapter in public health history that is successfully closed.