

Oregon's Statewide Plan for Heart Disease and Stroke Prevention and Care

**Working for
a Heart-Healthy
and Stroke-Free
Oregon**

***Developed in 2005 by
Oregon's Coordinating
Council for Heart
Disease and Stroke
Prevention and Care***

Process for Development of Our Statewide Plan

Oregon's Heart Disease and Stroke Coordinating Council convened in the spring of 2005 to begin development of a statewide plan for heart disease and stroke prevention and care in Oregon.

Approximately 40 local organizations were represented on the council, which received support from Oregon's Heart Disease and Stroke Prevention Program and American Heart Association and American Stroke Association staff.

The council agreed on the organization of work content and a structured process with which to work together to determine the goals, objectives, and strategies to be included in a statewide plan.

Five face-to-face meetings with full council membership, numerous informal meetings with groups and individuals across the state, and countless follow-up consultation meetings were conducted through the winter of 2005 to complete development of a statewide plan for heart disease and stroke.



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Executive Summary

In spite of dramatic improvements in the care of individuals with heart disease and stroke, these illnesses remain major causes of death and serious disability for Oregonians. This statewide plan is a call to action to improve prevention and care for heart disease and stroke in Oregon. A result of the commitment and cooperative efforts of many, the plan provides a ready tool and gives directions for improvements that attend to the entire continuum of heart disease and stroke prevention and care.

Prominent issues and topic areas addressed in the plan include: access disparities; policy and advocacy; support for healthy lifestyles; risk factor reduction and management; acute care; rehabilitation, long-term care, end-of-life care; and data surveillance and outcomes management. Access to health-related services and policies that ensure availability of services have been identified as key issues and given explicit attention in all statewide plan work areas.

Built on evidence-based guidelines established for heart disease, stroke, and related risk factors, the plan provides a comprehensive approach to prevention and care. Priorities determined by the United States Department of Health and Human Services Centers for Disease Control and Prevention including: controlling high blood pressure and cholesterol; recognizing the signs and symptoms of heart attack and stroke and taking appropriate actions; improving emergency response; improving quality of care; and eliminating health disparities between population groups are addressed in the plan. The plan also directs attention to prevention of recurrent events and enhancement of quality of life for victims of heart disease and stroke. Heart disease and stroke outcomes are related to healthy eating, physical activity and tobacco use, as well as diabetes. For that reason, the plan delineates collaborative efforts to specifically address these issues as well.

The scope of work outlined by the plan is ambitious yet achievable: a future in which Oregon is heart-healthy and stroke-free. Statewide plan goals describing an ideal vision and a future to work toward include:

- ♥ Oregonians have access to quality heart disease and stroke information, detection, and treatment services that are culturally and individually appropriate.
- ♥ Policies in Oregon ensure prevention, early detection, and quality of care for heart disease and stroke.
- ♥ Oregon supports healthy eating, daily physical activity, healthy weight, and tobacco-free lifestyles for all residents, as a means of preventing and managing heart disease and stroke.

♥ Oregonians receive evidence-based, culturally appropriate identification and treatment of risk factors for heart disease and stroke.

♥ Oregon provides timely, appropriate care for people experiencing acute cardiac and stroke events.

♥ Rehabilitation, long-term care, and end-of-life care in Oregon ensures quality of life for people with heart disease and stroke.

♥ Oregon has the ability to collect and disseminate data about heart disease and stroke in ways that are accessible and useful.

To chart our progress, measurable objectives that identify positive changes and strategies that describe specific actions to be taken to work towards goals and objectives have been developed.

Plan strategies focus on opportunities for collaboration between health care, work site, and community settings, as well as changes intended to occur at the level of systems, in order to impact the greatest possible number of people. Strategies strengthen and build on direction provided by other Oregon statewide plans, as well as current statewide efforts that influence heart disease and stroke.

The plan emphasizes opportunities for progress as well as potential for growth. Across Oregon, many people are engaged in work that supports the goals of the plan. Through the creation of connections between organizations and current efforts, plan directions capitalize on strengths and work through collaboration around available resources to build a foundation for sustainable change.

Oregon's Statewide Plan for Heart Disease and Stroke Prevention and Care is focused on advancing policy and engaging in partnerships to strengthen capacity, evaluate impact, and take action. Success of this plan depends on a balanced investment from health care, work site, and community settings to affect policy that ensures quality of care for the victims of heart disease and stroke, and also provides education and environmental supports to prevent or control risk factors.

Reaching Toward Greatness: Inspirations for Our Work

Quotes from Oregon's Heart Disease and Stroke Coordinating Council participants describing personal motivation for their efforts.

"There is an old saying, 'he who has health, has hope. He who has hope, has everything.' Our job is to increase health and hope in our communities."

"We are all responsible for the health and well being of our children, adults and communities."

"Knowledge is power and without it, change cannot happen."

"I believe it is a part of my professional responsibility as a physician to contribute to the community at large, and to try to expand the range of positive impact I can make on society—from the individual to the community."

"I do this work because health, and living in good health should be a right, and not an option or a privilege."

"I look at my two kids and I want to be healthy for them—to literally be here for them as well as be a role model for them. I am grateful we have access to parks, healthy foods, and good healthcare. I know many families don't. So, my work is for my family and those families that go without."

"My grandmother had a stroke in 1983. Her stroke changed her life and our family forever. She received good stroke care, but it was the care available in 1983. Today there is so much more we can do to prevent and treat stroke and help survivors and their families regain as much quality of life as possible. We need to work for that!"

"Never underestimate the power of individuals to make a difference. Indeed it is the only thing that ever makes a difference."

---Margaret Mead

Introduction

Urgent action is needed! Heart disease and stroke are epidemic. We must recognize this reality, consider all implications and issues tied to it, and chart a course toward a healthier future. Such a great challenge also presents a monumental opportunity. The causes of heart disease and stroke are largely known, as are effective prevention measures; tremendous gains in medical treatment have been made; and many people are now aware of the need for immediate action to halt the progression of this epidemic.

These opportunities provide fertile ground for the development and implementation of better policies and environmental supports that favor cardiovascular health, and for systems level changes that ensure delivery of the best possible quality of health care. A statewide plan for heart disease and stroke draws attention to the wide range of opportunities for prevention and intervention, and provides a forum that invites all stakeholders to collaborate in the creation of heart-healthy and stroke-free Oregon.

Oregon's Statewide Plan for Heart Disease and Stroke Prevention and Care is intended to provide a roadmap to reach better cardiovascular health for all Oregonians. The plan assumes that we are collectively preparing for the journey and surveying the map to discern the best means for traversing the terrain ahead. As such, it serves as a guide to those who aim to influence cardiovascular health in Oregon, and speaks directly to those making decisions that affect large numbers of people. The statewide plan provides directions for the prevention and care of heart disease and stroke and thereby:

- ♥ Ensures that clinical, self-management, environmental, and systems approaches, as well as the needs of priority populations with disparities, are represented in heart disease and stroke prevention and care efforts across Oregon.
- ♥ Ensures a shared vision and organized approach in Oregon for efforts addressing health issues related to heart disease and stroke.
- ♥ Provides opportunities to build on current efforts and local successes through collaboration with existing health services and organizations in Oregon.
- ♥ Promotes changes in environments and policies that contribute to better prevention and care for heart disease and stroke for Oregonians.
- ♥ Serves as a tool for private and public partners across Oregon to guide strategic interventions for cardiovascular disease.

A Vision for Improvement in Oregon

Heat disease and stroke combined continue to be Oregon's leading cause of death. Many partners are committed to reducing this enormous and largely preventable disease burden.

The vision for this plan is to create an Oregon where support for healthy lifestyle choices—being physically active, choosing healthy foods, being tobacco free—is everywhere to be found, thus helping to prevent the primary risk factors for heart disease and stroke. We want to make the healthy choice the easy choice.

The vision also includes systems for early detection and treatment of risk factors, early identification and treatment of heart attacks and strokes, availability of rehabilitation, long-term care and end-of-life services, and prevention of recurrent cardiovascular events for all of Oregon's populations.

Linking systems and ensuring continuity of care will help Oregon reach key U.S. Healthy People 2010¹ goals of increased years of healthy life and the elimination of health disparities.

A Framework for Prevention and Care

Oregon's Coordinating Council for Heart Disease and Stroke devised a framework to represent the full scope of heart disease and stroke prevention and care in all its aspects. This framework is based on a thorough understanding of the progressive development of disease, as well as suggested national guidance, and points to opportunities for prevention and intervention.²

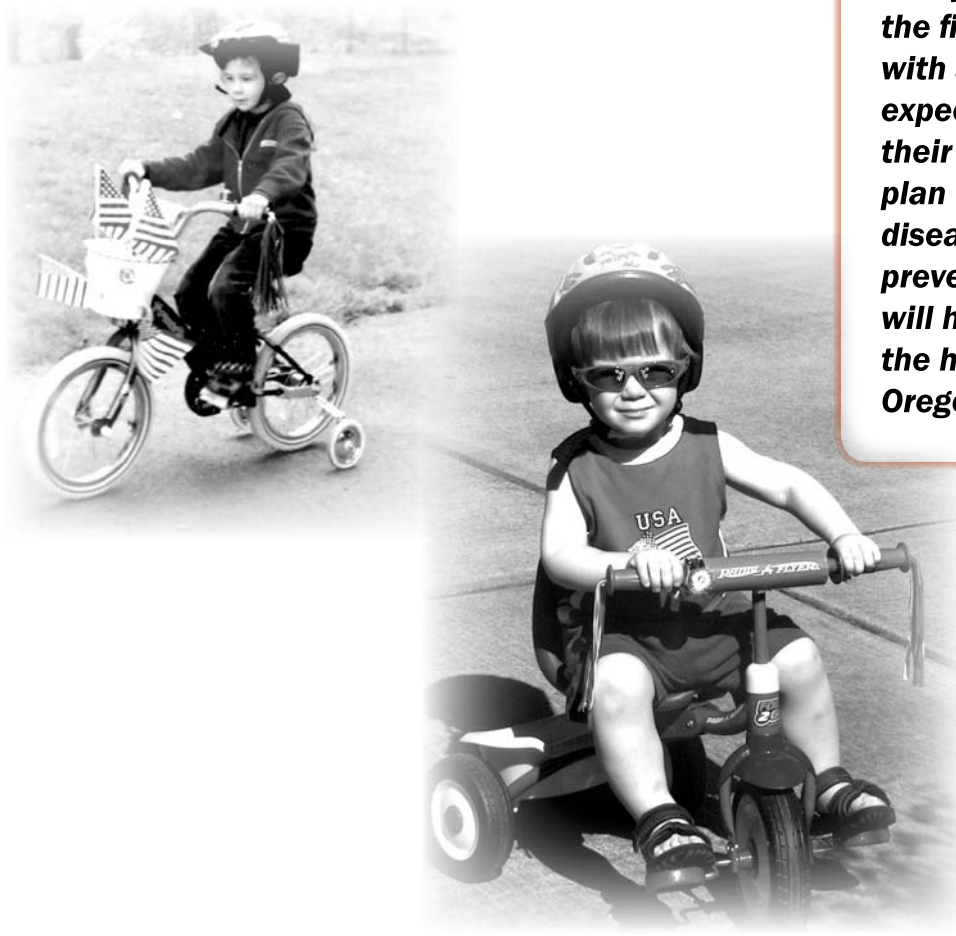
A number of topic areas and issues emerged from development of this framework. Topic areas include support for healthy lifestyles; risk factor reduction and management; acute care; rehabilitation, long-term care, and end of life care; and data surveillance and outcomes management.

Two overarching issues—access disparities, and policy and advocacy—came to the forefront of discussion for all topics, and were determined as priorities to be addressed in the work of each topic area. The topics and issues became the focus for development of goals, objectives and strategies for the statewide plan.

Each plan topic area supports a **goal**, which represents the broadest type of vision for improvement in that section. Goals aim high and describe an ideal future with specific achievements accomplished.

Each goal is measured by several **objectives**, which identify positive changes that need to occur in order to move toward realizing goals. Objectives are outcome-oriented and described in terms of performance. Each objective is measurable by some means, and includes only one indicator of change. The objectives in this document may realistically be attained within a five-year timeframe.

Each objective is followed by several **strategies**, which describe actions to be taken to work toward goals and objectives.



Today's youth is the first generation with a shorter life expectancy than their parents. Our plan for heart disease and stroke prevention and care will help protect the health of future Oregonians.

¹ US Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health. Second edition, volume 1.* Washington, DC: US Government Printing Office, November 2000.

² US Department of Health and Human Services. *A Public Health Action Plan to Prevent Heart Disease and Stroke: Executive Summary and Overview.* Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2003.





Heart Disease and Stroke in Oregon



Defining Heart Disease and Stroke

Hearth disease includes any illness that affects the structure or function of the heart. The main form of heart disease is coronary artery disease. It accounts for two-thirds of the heart disease deaths in Oregon.

Coronary artery disease results when the flow of blood and oxygen to the heart muscle is decreased or cut off. A decrease in blood flow to the heart can lead to chest pain or “angina.” When blood flow to the heart muscle is cut off, part of the heart muscle may die. This is what happens in a heart attack.

Heart disease also includes “heart failure.” This happens when the heart can't pump normally, and fluid backs up into the tissues or the lungs. Fluid in the tissues shows up as swelling. Fluid in the lungs can cause trouble breathing.

Stroke is damage to the brain caused by an interruption in its blood supply. One type of stroke is caused by bleeding into the brain when a blood vessel bursts. The other, more common type of stroke occurs when blood flow to part of the brain is cut off.

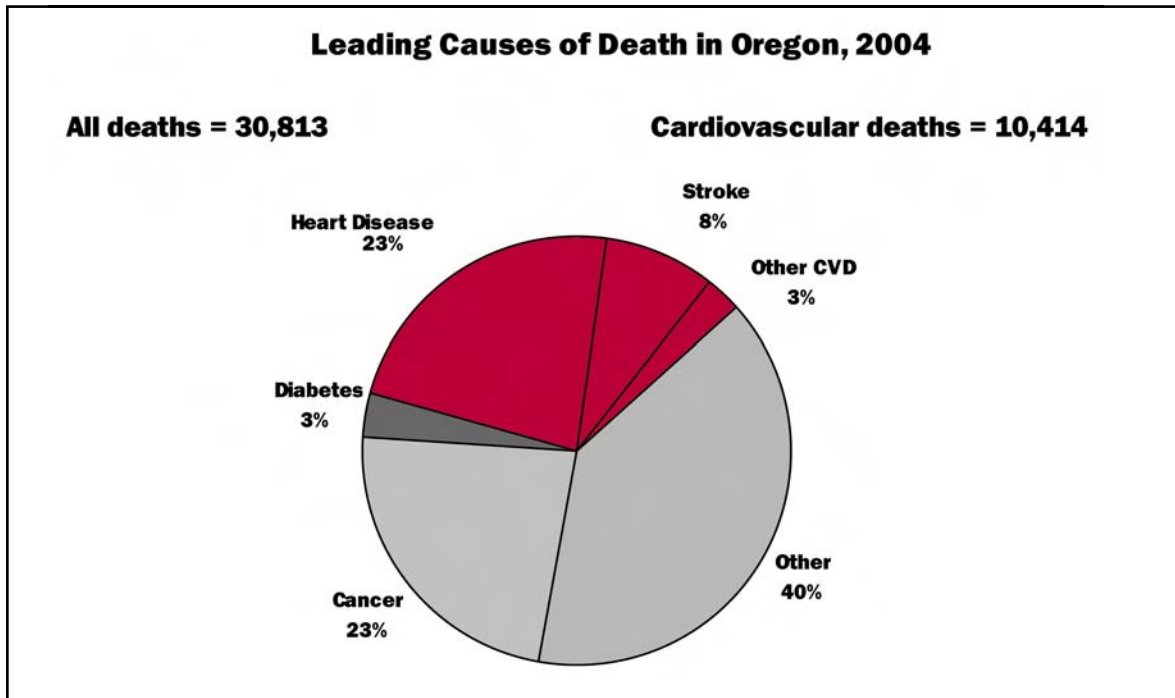
“Cardiovascular disease” includes both heart disease and stroke-related illness.

“Cerebrovascular disease” refers specifically to problems along the path of blood vessels supplying the brain.

Reference: American Heart Association Heart and Stroke Facts, 2003.

The Burden of Heart Disease and Stroke in Oregon

Figure 1



Source: Oregon Vital Statistics Report 2004

The Human Cost in Oregon

In 2003, there were over 7,000 deaths from heart disease in Oregon—nearly one out of every four. Heart disease and stroke together are the leading cause of death, accounted for 31% of all Oregon deaths in 2003. Nationwide, there are more than 700,000 deaths every year from heart disease. It kills more than 100,000 people nationwide every year.

Death rates for heart disease have been declining in the past decade. Death rates for stroke, however, have increased. These trends may reflect changes in the fraction of people with risk factors for these diseases. The decline in heart disease death rate also reflects advances in medical management of heart attack and other acute heart disease-related events.

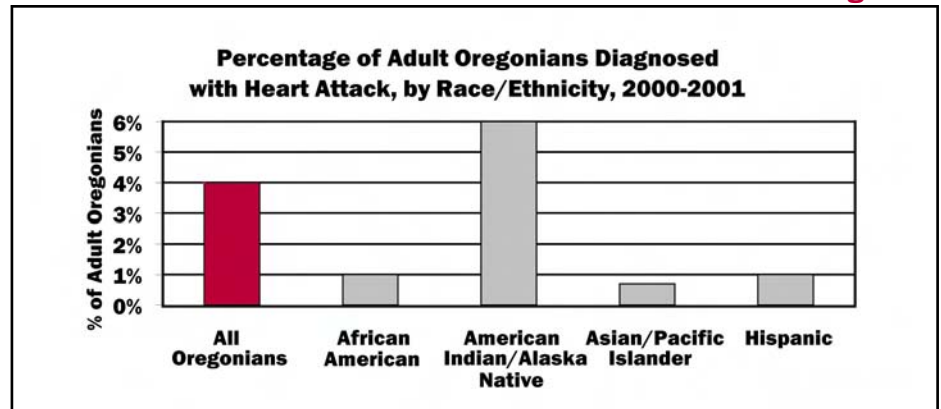
In addition to deaths, there are many Oregonians who live every day with the burden of heart disease or stroke. Among adults age 45 and older, 8% had been told by a health professional that they had angina or coronary heart disease, 7% have had a heart attack, and 5% have experienced a stroke.

Unequal Burden Among Ethnic Minorities

Heart Attack

American Indians and Alaska Natives report being diagnosed with heart attack at higher rates than adult Oregonians in general. This is consistent with the higher rates of coronary heart disease seen nationally in this population.

Figure 2

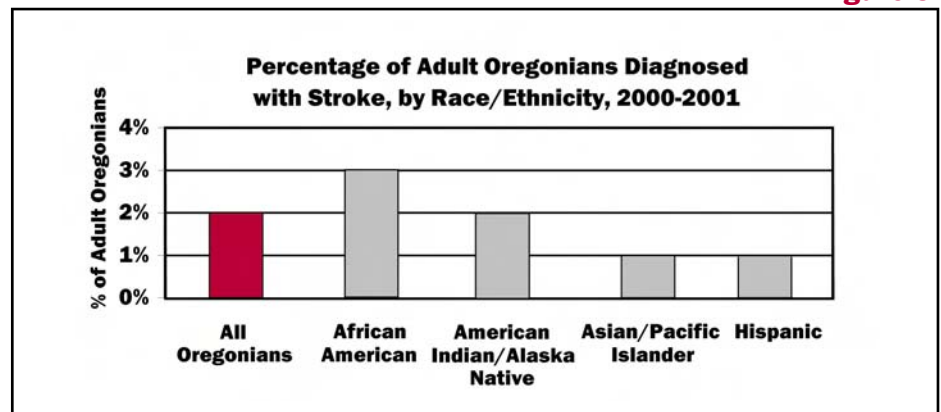


Source: 2000-01 BRFSS Race/Ethnicity Augment

Stroke

African Americans in Oregon report stroke at higher rates than Oregonians in general. Nationally, there is a similar disparity.

Figure 3

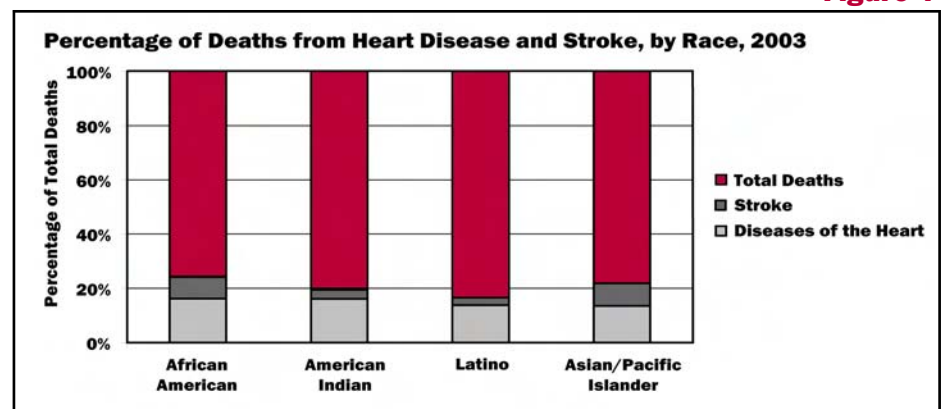


Source: 2000-01 BRFSS Race/Ethnicity Augment

Heart Disease and Stroke Deaths

In 2003, heart disease and stroke accounted for 20% of all deaths for African Americans, American Indians, and Asian/Pacific Islanders in Oregon. Heart disease and stroke related death rates for Latinos in Oregon were only somewhat lower. These high death rates are similar to national rates found in these population groups.

Figure 4

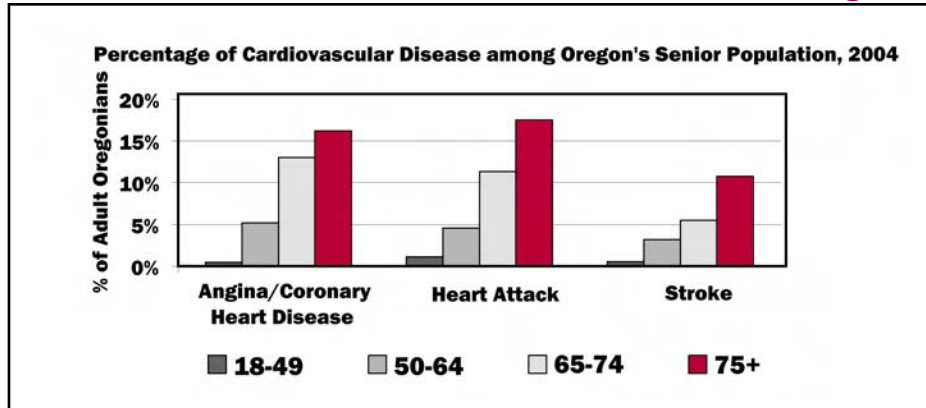


Source: 2003 Death Certificate Statistical Files

Unequal Burden Among Other Groups

Older Oregonians

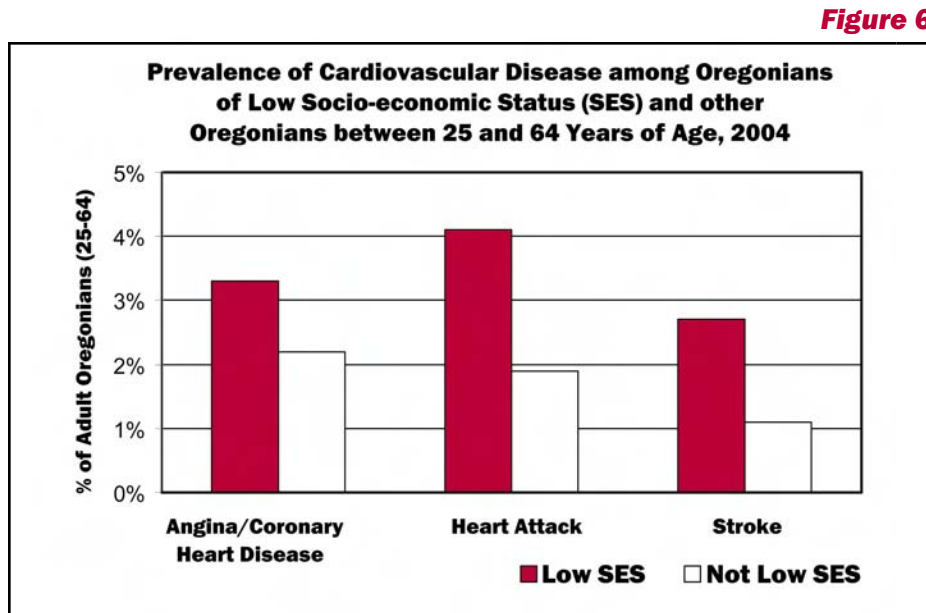
Oregonians older than age 50 report diagnosis of heart attack, coronary heart disease and stroke at a much higher rate than younger citizens of the state; this trend increases with advancing age.



Source: Oregon Behavioral Risk Factor Surveillance System

Economically Disadvantaged

Health disparities often exist between persons of limited means and those with access to more resources. Figure 6 shows that people with low socioeconomic status reported a higher prevalence of cardiovascular disease than that reported for other Oregonians. Reported heart attack prevalence was over



Source: Oregon Behavioral Risk Factor Surveillance System

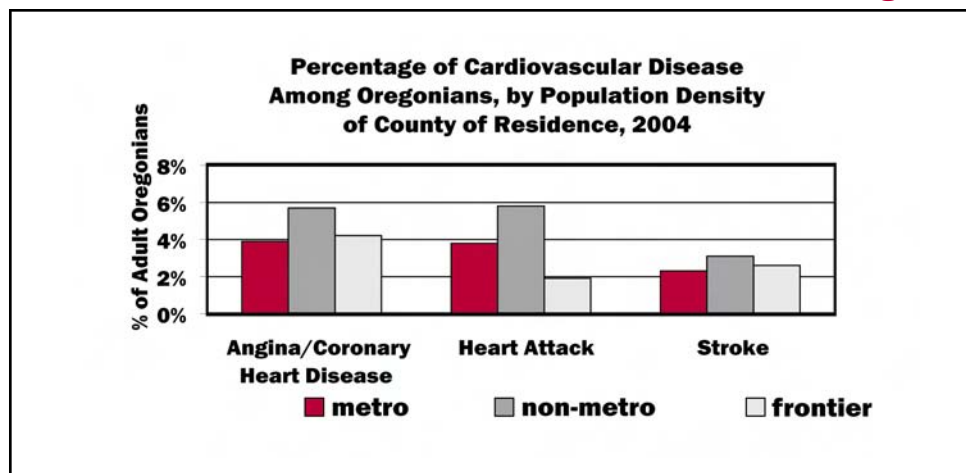
two times greater, and for stroke over two and one-half times greater, for people with low socioeconomic status than that reported for other Oregonians.

Note: Oregonians of low socioeconomic status included people who: a) had not received a high school (or GED) degree; b) had an annual household income of \$25,000 or less; c) were enrolled in the Oregon Health Plan (Medicaid); or d) were uninsured. Anyone with a college degree or an annual household income of greater than \$50,000 was not classified as having low socioeconomic status, even if they met the description above.

Rural Oregonians

Figure 7 shows that Oregonians living in non-metro and frontier counties have a higher prevalence of heart attack and coronary heart disease. When data from frontier and non-metro is combined, counties that could be considered in general to be rural showed a prevalence of angina, heart attack and stroke two times greater than metro counties.

Figure 7



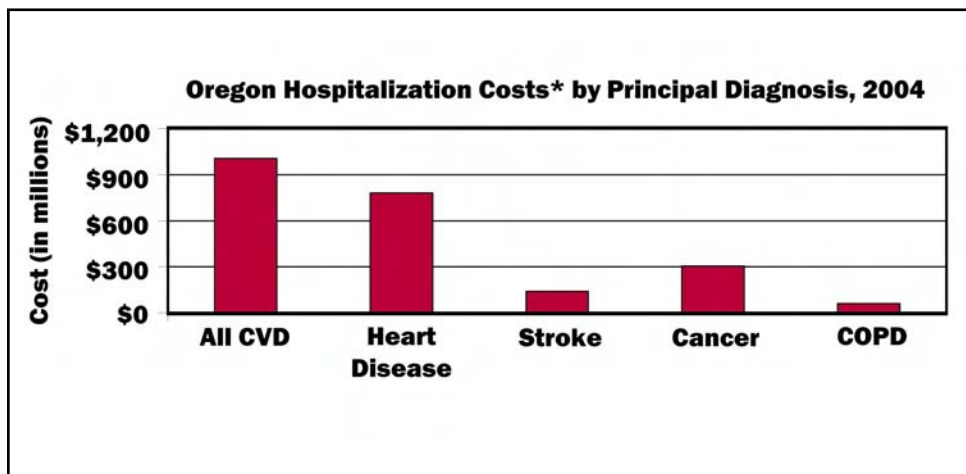
Source: Oregon Behavioral Risk Factor Surveillance System

Note: Frontier counties are defined by a population density of less than six persons per square mile.

The Economic Cost

Thousands of Oregonians are hospitalized each year for heart attack, heart failure, or stroke. This results in pain and suffering for these individuals and their families. It leads to a large economic burden as well.

Figure 8



*Hospital charges only; does not include VA system

Source: 2004 Hospital Discharge Data

The 32,000 hospitalizations in Oregon for heart disease in 2004 cost Oregonians \$781 million. 7,600 hospitalizations for stroke cost Oregonians a total of \$140 million. Altogether, there were \$1.1 billion in hospitalization costs for heart disease, stroke, and related diseases. This translates into an average cost of over \$300 for every man, woman, and child in Oregon. This estimate does not include non-hospital charges, costs for provider services or treatment, or any connected with rehabilitation, long-term care, or end-of-life care.

Risk Factors for Heart Disease and Stroke

Some risk factors for heart disease and stroke are modifiable. People who control these factors can markedly reduce their risk from these diseases. Smoking, high blood pressure, high blood cholesterol, poorly controlled diabetes, obesity, and lack of regular exercise are all controllable risk factors. Addressing these factors is a critical strategy in reducing the impact of heart disease and stroke.

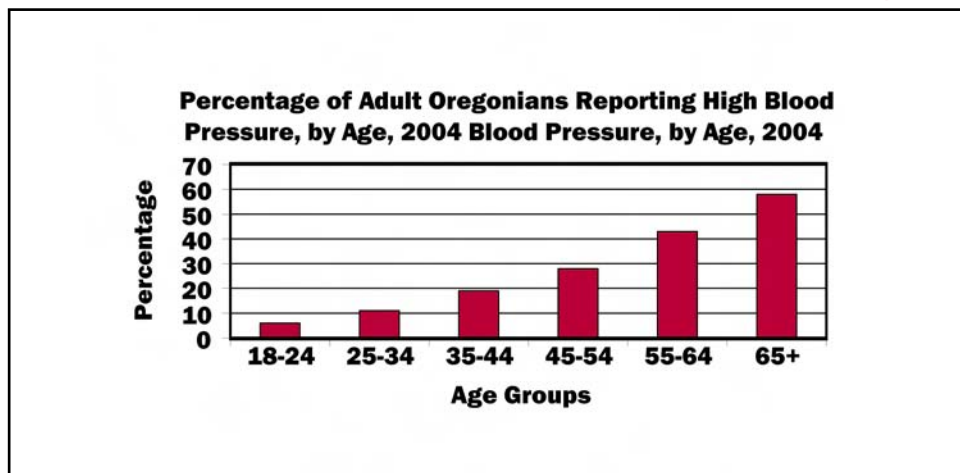
Smoking

Many people think of smoking mainly as a cause of cancer. But more Oregonians die from heart disease and stroke brought on by tobacco than die from tobacco-linked cancer. About one in five adult Oregonians smokes. Smoking rates are falling, but there is still much room for improvement.

High Blood Pressure

High blood pressure (hypertension) is a major risk factor for heart disease and stroke. More than one in four adult Oregonians report that they have high blood pressure, and the frequency of high blood pressure increases with age. High blood pressure can often be controlled through weight loss, regular physical activity, and with medication.

Figure 9



Source: Oregon Behavioral Risk Factor Surveillance System

High Blood Pressure

Prevalence of High Blood Pressure

Table 1

Population	Caucasian	African American	Asian/Pacific Islander	Hispanic	American Indian/Alaska Native
Oregonians	26.0%	26.1%	21.1%	13.5%	22.7%
National*	25.5%	32.3%	---	19.4%	---

*National data represent 2001 median state estimates from CDC Wonder

Source: CDC Wonder Data and Oregon Behavioral Risk Factor Surveillance System

Cholesterol

High blood cholesterol also increases a person's risk for heart disease and stroke. As with blood pressure, cholesterol levels tend to increase with age. High blood cholesterol can be controlled through diet, exercise, and use of medicine.

High Blood Cholesterol

Prevalence of High Blood Cholesterol

Table 2

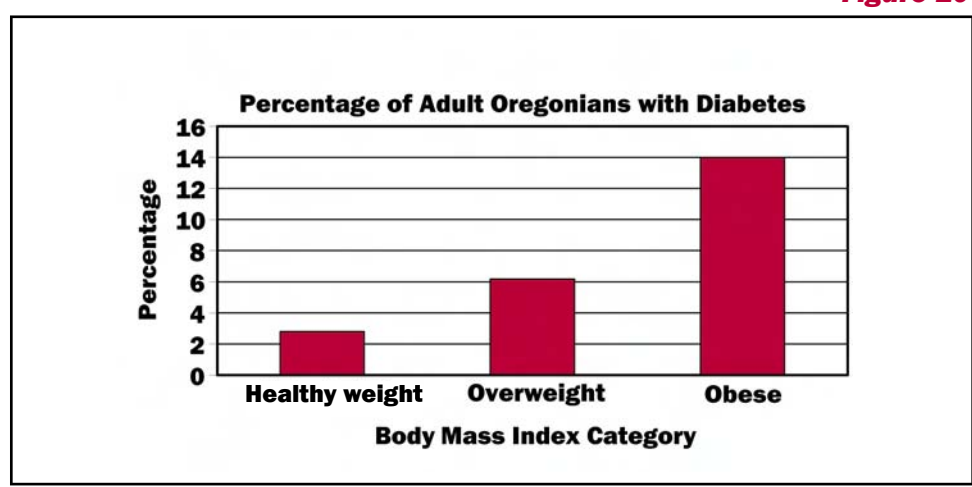
Population	Caucasian	African American	Asian/Pacific Islander	Hispanic	American Indian/Alaska Native
Oregonians	32.8%	18.1%	26.0%	25.5%	24.2%
National*	30.9%	24.8%	---	24.6%	---

**National data represent 2001 median state estimates from CDC Wonder
Source: CDC Wonder Data and Oregon Behavioral Risk Factor Surveillance System*

Diabetes

Diabetes increases risk for heart disease and stroke. More than 6 out of every 100 adult Oregonians have been diagnosed with diabetes. Of these, almost one in four have been diagnosed with heart disease or stroke.

Figure 10



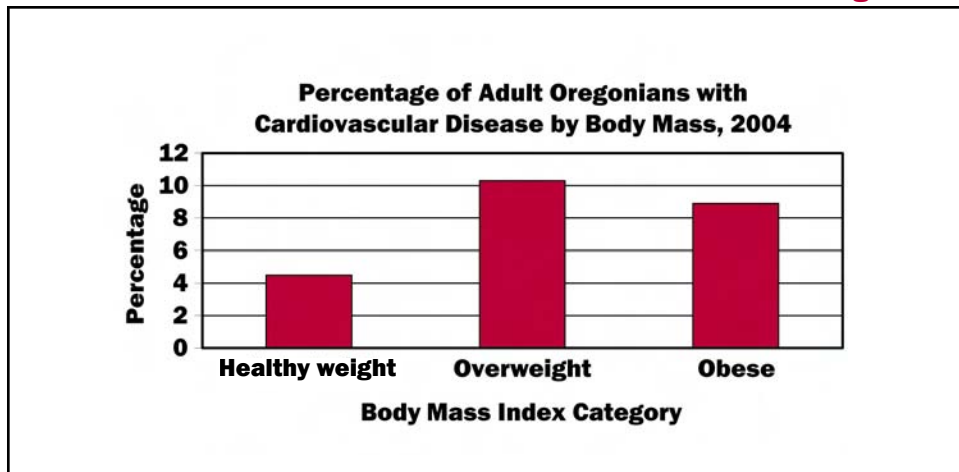
Source: Oregon Behavioral Risk Factor Surveillance System

Controlling body weight can reduce the risk of diabetes. Body mass index is a measure of whether a person's weight is in a healthy range, compared with the person's height. In 2004, overweight Oregonians were twice as likely to report having diabetes as those with a lower body mass index. Obese individuals were five times more likely to report having diabetes.

Physical Activity and Weight

In addition to the increased risk for diabetes, body weight and physical activity also directly impact one's risk for heart disease and stroke. In 2004, Oregonians who were overweight or obese were more than twice as likely to report being diagnosed with some form of cardiovascular disease.

Figure 11



Source: Oregon Behavioral Risk Factor Surveillance System

Regular physical activity can also reduce the risk of heart disease and stroke. In 2004, adult Oregonians who got recommended levels of physical activity were less likely to report they had cardiovascular disease than people who were less physically active (6.1% vs. 9.3%).

Overweight and **obesity** are determined using weight and height to calculate a person's "body mass index" (BMI). Adults with a BMI from 25–29.9 are considered overweight. Those with a BMI of 30 or more are considered obese.





Statewide Plan Overarching Issues



Access Disparities

GOAL: Oregonians have access to quality heart disease and stroke information, detection, and treatment services that are culturally and individually appropriate.

Appropriate access to health services for heart disease and stroke is important for both ethical and economic reasons. Greater levels of access to services correlate with higher quality care, better value, and better patient outcomes.

When access is compromised, health outcomes worsen. These worse outcomes often come at a higher cost, such as when untreated high blood pressure leads to a stroke, or when untreated high cholesterol leads to a heart attack.

Access has been defined by the Oregon Office of Health Policy and Research as “timely patient contact with appropriate providers of needed health services.”³ This definition includes three key components that must be in place for a person to have appropriate access to health services:

♥ **Timeliness**, in order for the patient to receive effective prevention and early diagnosis and treatment

♥ **Appropriate providers** who can provide suitable clinical skills and an appropriate level of cultural competency

♥ **Needed services** to improve the health status of the patient

Disparity in access refers to a lack of parity or consistency in providing services for all, resulting in resource gaps that can leave many without health services.

During the development of the statewide plan, certain access disparity subjects came to the forefront of discussion for all topic areas and were determined priorities to be addressed in the work of each topic area. Access subjects addressed by the plan include socioeconomic and insurance disparities; age disparities; ethnic and cultural disparities; and regional or geographic disparities.

³ Office of Health Policy and Research, DHS Office of Health Systems Planning, Oregon Primary Care Association. “Access to Health Care in Oregon” (presentation to the Oregon Health Policy Commission, March 3, 2004).

Socioeconomic Factors and Insurance Disparities

Medical care is expensive, and lack of economic resources can create disparities in access to care. Many Oregonians without health insurance, as well as those who must pay high deductibles, go without preventive care or delay seeking care early in the disease process. This delay can complicate their condition later. Lack of means to pay for medications to lower cholesterol and blood pressure can accelerate the disease process. It is common for uninsured people to use hospital emergency departments as their primary source of medical care. This trend results in lack of coordinated care and shifting of non-reimbursed expenses to other consumers.

Age as an Access Barrier

Heart disease and stroke prevention and care pose some specific access issues for Oregon's increasingly older adult population. Older adults are more likely to have multiple chronic conditions, which complicates care. Healthcare providers, patients and families need to communicate clearly on choices and preferences between aggressive and palliative care for the frail elderly or those with advanced chronic conditions. There is also a need to ensure continuity of care between health care and long-term care so that as older adults move between hospital, acute care nursing facility, and community-based care, their medication and treatment plans remain stable.

The Importance of Cultural Competency

CASE STUDY: Barriers in Health Care Related to Ethnicity and Culture

“Imagine you are in an Asian restaurant, served by a group of enthusiastic non-English speaking restaurant workers. You are hungry and would like to order something familiar. You try hard to express yourself and hope that they will bring something you'd like to eat. They also try very hard to recommend and bring their best dishes. But what you thought you'd ordered never arrives, and both you and the restaurant workers end the encounter feeling disappointed and frustrated. Your needs were not met, and you weren't able to recognize their good intentions because of conflicts in culture and language.

Similar disappointments can happen in health care settings when Asian patients meet Western doctors. New immigrants and refugees from Asian countries, especially the elderly and people who are less educated, often hold fast to their traditional health beliefs. Language barriers are also common. Asian patients may be less satisfied when treated by Western doctors, and doctors may observe that Asian patients tend to be more non-compliant with medication and instruction. This unhappy doctor-patient relationship is due to the unmet expectations of persons of different cultures, ethnicity and languages. It is just like mixing oil with water, and it takes lots of effort to get a happy medium.”

—Holden Leung, Executive Director, Asian Health & Service Center

IMPORTANCE OF CULTURAL COMPETENCY continued...

IMPORTANCE OF CULTURAL COMPETENCY continued...

Often taken for granted, our abilities to relate to each other, to communicate effectively and compassionately, greatly influence our quality of life. Ideally, everyone works from a skill set, also known as “cultural competency”, that allows for awareness, understanding, and appreciation of cultural differences between people. According to the National Center for Cultural Competence website, delivery of culturally competent services demonstrates three distinct characteristics:

- ♥ Identification and understanding of the needs and help-seeking behaviors of individuals and families
- ♥ Services tailored to match the unique needs of individuals and communities served
- ♥ Interventions are driven through person-centered preferences that reflect their culture

Geographic Barriers

Oregon's rural and frontier residents face unique challenges in accessing high quality medical care for heart disease and stroke. While urban areas benefit from emergency medical system (EMS) response times as short as four to five minutes, response times in rural and frontier Oregon are not so fast. More than four out of every ten rural and frontier EMS services report response times of nine minutes or greater, and one in ten reported average response times of 16-30 minutes.

Further, less than half of Oregon's rural and frontier EMS services are able to provide Advanced Life Support services. Most rural and frontier emergency services provide only basic life support services. Emergency medical technicians are generally trained at lower proficiency levels and the scope of services provided is more limited for these regions. In rural and frontier areas, once the patient has reached a hospital, staffing levels and medical specialists may be limited.

Most rural and frontier hospital emergency rooms are able to stabilize heart attack and stroke victims but do not have the facilities or staff to provide a comprehensive set of intervention and rehabilitation services. This often means the patient is transferred to a regional hospital for crucial services. While many cardiologists provide services in rural communities on an intermittent basis, only 13 of the state's 224 cardiology specialists are located exclusively in rural areas. Neurology services are even more limited.⁴

⁴ Oregon Office of Rural Health

Access Disparities: An Overarching Issue

Disparities in access affect Oregonians from many walks of life, and may take many forms. They are pervasive barriers to the attainment of a heart-healthy and stroke-free Oregon and take priority in all topic areas of the statewide plan for heart disease and stroke prevention and care, from access to support for healthy lifestyles, risk factor reduction and management, to access to high-quality acute care, rehabilitation, long-term care and end of life care.

The statewide plan access goal—that Oregonians have access to culturally and individually appropriate, quality heart disease and stroke information, detection, and treatment services—is a lofty aspiration. It will require the dedication and determination of all stakeholders to be achieved.



In this document, objectives and strategies related to access disparities are not separated into a separate section. Instead, they are integrated within topic areas. Throughout the plan, each objective and strategy that supports the **GOAL** of reducing access disparities is marked with a graphic of unequal scales.

Policy and Advocacy

GOAL: Policies in Oregon ensure prevention, early detection, and quality of care for heart disease and stroke.

Promoting a heart-healthy and stroke-free Oregon must involve efforts from all sectors of society. Health care systems, state and local governments, and workplaces have important and distinct roles to play in improving cardiovascular health. Health care organizations can implement systems to better monitor and manage cardiovascular conditions in accordance with national guidelines. Policymakers can establish coverage for preventive health services, no-smoking laws, and emergency response systems. Businesses can provide employees with screening and follow-up services for blood pressure and cholesterol control and offer opportunities for physical activity, and tobacco cessation.⁵

Policies are of great importance because of their influence on common behaviors and standards for practice. Policies determine the way in which systems work or the availability of options provided, and have the potential to positively affect large numbers of people. Policy changes are not exclusive or limited to legislation or governmental regulations. Changes in policy to support the goals of this plan may take many forms.

“Can we imagine a world where our communities are designed to encourage safe physical activity? Where worksites and school cafeterias provide affordable, heart-healthy food options? Where the environment of public spaces is smoke-free? Where health care purchasers universally include preventive services, coverage of prescription drugs for heart disease, and counseling for therapeutic lifestyle changes? How do we turn these scenarios into reality?”

Becoming engaged in the prevention of heart disease and stroke is a worthy cause for everyone, especially for those who can influence decisions that affect communities across the country.”

—George Mensah, MD, FACP, FACC, Acting Director, National Center for Chronic Disease Prevention and Health Promotion

Be part of the solution and make a difference by joining “You’re the Cure Network” at www.americanheart.org. It’s the easiest way to stay apprised of heart disease and stroke-related policy efforts.

⁵ Centers for Disease Control and Prevention. *Moving into Action: Promoting Heart-Healthy and Stroke-Free Communities (State Legislators)*. Atlanta, GA: U.S. Department of Health and Human Services; 2005.

Policy and Advocacy: Overarching Issues

Policies that create healthy environments, promote access to quality care and broaden health care coverage have the power to positively affect the cardiovascular health of Oregonians from all communities and from all walks of life.

Policy and advocacy are a priority for all topic areas of this plan. Therefore, most of the objectives and strategies related to policy development and advocacy efforts are integrated within other goal areas in this document.



Throughout the plan, each objective related to **STRATEGIES** that support the goal of strengthening policy and advocacy efforts for heart disease and stroke prevention and care is marked with a “gavel” graphic.

Through development of plans that addressed each topic area, the following strategy for policy and advocacy work efforts emerged as an idea shared by all topic area work groups:

STRATEGY:



♥ Advocate for universal health care coverage that includes primary and secondary prevention, treatment, and rehabilitation services for heart disease and stroke for all Oregonians.





Statewide Plan Action Topics



Support for Healthy Lifestyles

GOAL: Oregon supports healthy eating, daily physical activity, healthy weight, and tobacco-free lifestyles for all residents, as a means of preventing and managing heart disease and stroke.

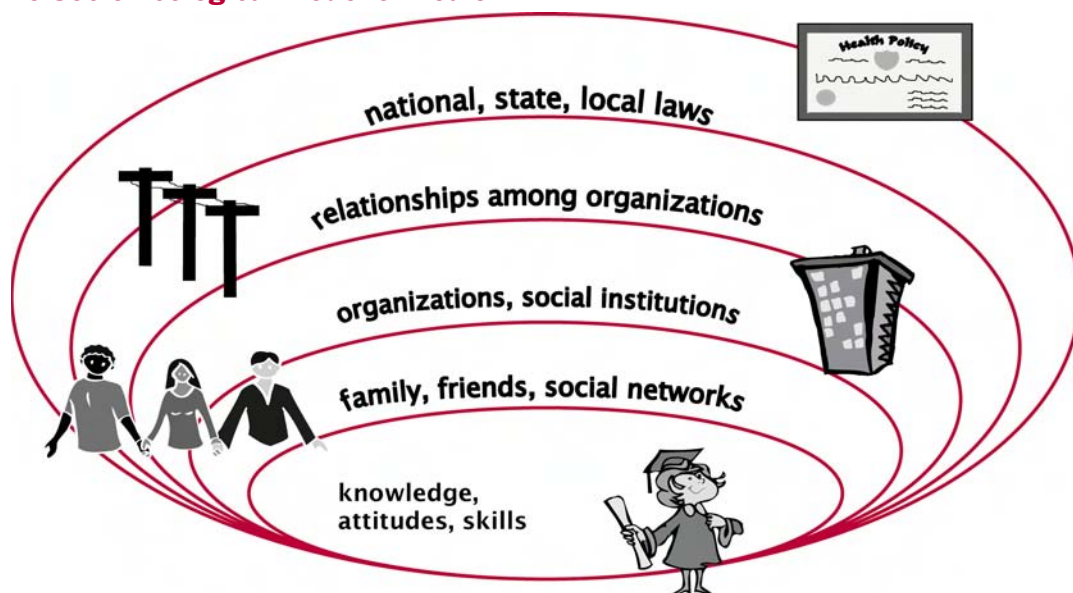
The Socio-Ecological Model of Health, outlined in the graphic below, is a helpful framework for understanding the complex interplay of individual, interpersonal, organizational, community and public policy factors in lifestyle. Barriers to heart-healthy behaviors—such as lack of access to safe places to walk and play in a community, or low availability of fresh fruits and vegetables—are shared among the community as a whole.

As these barriers are lowered or removed, individual behavior change becomes more achievable and sustainable. As individuals gradually become healthier over time, the greater community shares increased health and well-being. The most effective approach leading to healthy behaviors is a combination of efforts at all levels: individual, interpersonal, organizational, community, and public policy.

“Something as simple as improving the appearance and location of stairwells or connecting school sites to the neighborhood with sidewalks and safe street crossings can produce health benefits. It is time to recognize the role community design plays in health.”

—Mel Kohn, MD, MPH, State Epidemiologist for Oregon

Figure 12: The Socio-Ecological Model of Health



OBJECTIVE:

Increase the number of communities with partnership groups promoting access to healthy foods, opportunities for physical activity, and smoke-free environments, especially for populations with heart disease and stroke disparities.

STRATEGIES:

- ♥ Engage stakeholders in communities to deliver culturally appropriate programs and policies promoting healthy eating, physical activity, and smoke-free environments.
- ♥ Promote policies for government food programs that encourage healthy choices.
- ♥ Support formation of school health advisory councils to promote physical activity, nutrition and tobacco prevention.

The Oregon Nutrition Policy Alliance created Model School Wellness Policies to help school districts meet the federal requirement of having wellness policies. The Model School Wellness Policies are at www.ode.state.or.us.

A number of statewide coalitions work in concert with communities to reduce the burden of heart disease and stroke in Oregon by promoting healthy lifestyles. Such partnerships promote physical activity, healthy eating and tobacco-free living in Oregon. For example, the Oregon Coalition for Promoting Physical Activity spearheaded grassroots efforts to pass legislation to improve the quality of physical education in schools.

Likewise, the Nutrition Council of Oregon is working to improve neighborhood access to affordable fruits and vegetables. The Tobacco-Free Coalition of Oregon supports a variety of initiatives to help Oregonians quit tobacco use and protect them from second-hand smoke. The Oregon Nutrition Policy Alliance supports nutritious food choices for students and employees in Oregon schools.

MEASURING IMPROVEMENT:

Indicator: Number of community partnership activities in Oregon promoting healthy lifestyles among groups disproportionately affected by cardiovascular disease or its risk factors.

Data source: Healthy Lifestyles Activity Inventory.

Criteria for success: By June 2011, the number of community partnership activities in Oregon promoting healthy lifestyles among groups disproportionately affected by cardiovascular disease or its risk factors will increase by 5%.

OBJECTIVE:



Increase the proportion of Oregon employers providing worksite health promotion programs, policies, and environmental supports that encourage physical activity, healthy food choices, and limited exposure to tobacco smoke.

STRATEGIES:

- ♥ Promote worksite policies that encourage physical activity, healthy nutrition, and decreased tobacco exposure.
- ♥ Partner with organizations working to implement worksite-based physical activity, nutrition, and tobacco prevention interventions.
- ♥ Promote partnerships and campaigns between schools, communities, and health systems to support and incentivize worksite health promotion efforts.

Significant Cost

In 2004, heart disease and stroke costs in the U.S. were estimated at \$368.4 billion, which includes direct healthcare costs and lost productivity due to death and disability.

Source: American Heart Association Statistical Update

MEASURING IMPROVEMENT:

Indicator: Proportion of employers with policies:

- 1) Limiting employee exposure to secondhand smoke.
- 2) Promoting employee opportunities for physical activity.
- 3) Promoting healthy food choices for employees.

Data source: Healthy Worksite Initiative Employer Survey.

Criteria for success:

- 1) By June 2011, the proportion of Oregon employers with policies limiting employee exposure to secondhand smoke will increase by 5%.
- 2) By June 2011, the proportion of Oregon employers with policies promoting employee opportunities for physical activity will increase by 5%.
- 3) By June 2011, the proportion of Oregon employers with policies promoting healthy food choices for employees will increase by 5%.

Heart-Healthy Lifestyles at Work

A majority of Oregon adults work outside the home. Worksites provide an ideal setting to support healthy lifestyle choices and management of risks for heart disease and stroke. Oregon employers are interested in keeping their employees healthy. Oregon employees would like healthier food choices in cafeterias and vending machines and opportunities to be physically active.

Identifying those with high blood pressure and high cholesterol and linking to primary care, offering tobacco cessation benefits and weight management support, are additional ways worksites can support employee health. Management support and organizational commitment to employee health are essential for successful health promotion programs in worksites.

It's in Everyone's Best Interest

Research shows that employers can yield \$3-\$6 in "Return on Investment" for each dollar invested over a two- to five-year period and improve employee heart health by investing in comprehensive worksite health-promotion and by choosing health plans that provide adequate coverage and support for essential preventative services.

Source: American Journal of Preventive Medicine, 2005

OBJECTIVE:



Increase the number of state and local policies that support healthy lifestyles.

STRATEGIES:

- ♥ Support current efforts to secure funding for tobacco prevention education programs at minimum levels recommended by the Centers for Disease Control.
- ♥ Support current efforts to ensure that all workplaces in Oregon are smoke-free.
- ♥ Support current efforts to require that quality physical education meeting minimum recommended standards for elementary, middle, and high school students be provided to all Oregon youth.
- ♥ Support current policy efforts to establish minimum nutrition standards for foods sold in schools.

The Centers for Disease Control recommends schools offer regular physical education for students. The CDC recommends a minimum of 150 minutes per week for elementary students and a minimum of 225 minutes per week for secondary students.

Heart-Healthy Tobacco Policies in Oregon

Policies in Oregon help protect people from secondhand smoke, keep kids from starting, and create a social norm that tobacco use is unacceptable. Before the Oregon Legislature passed the statewide Indoor Clean Air Act in 2001 that included a clause that prevents local communities from passing ordinances that restrict smoking in public buildings, many communities enacted these policies on a local level. For example, in Corvallis and Eugene, there are total bans on smoking in public buildings, including bars.

To protect kids from starting to use tobacco, and to set social norms that discourage tobacco use, the city of Pendleton passed an ordinance in 2004 banning free samples of tobacco. Other communities are pursuing policies restricting smoking in parks or on hospital or college campuses. In 2004, the Oregon State Board of Education passed an administrative rule that requires all school campuses in Oregon to be completely tobacco free at all times for staff, visitors and students.

Oregon Statewide Plans referenced in this section:

Nutrition Council of Oregon. A Healthy Active Oregon: The Statewide Public Health Nutrition Plan. Oregon Department of Human Services, 2003.

Oregon Coalition for Promoting Physical Activity. A Healthy Active Oregon: The Statewide Physical Activity Plan. Oregon Department of Human Services, 2003.

Taking Action for a Tobacco-Free Oregon. Oregon Statewide Tobacco Control Plan, 2005-2010. Oregon Tobacco Prevention and Education Program, 2005.

MEASURING IMPROVEMENT:

Indicator: Number of policies enacted by state, tribal, and local government to promote physical activity, healthy eating, or protection from secondhand smoke.

Data source: Healthy Lifestyles Inventory, Legislative Information Notification and Update System (LINUS).

Criteria for success: By June 2011, the number of policies enacted by state, tribal, and local government to promote healthy lifestyles will increase by 5%.

Risk Factor Reduction and Management

GOAL: *Oregonians receive evidence-based, culturally appropriate identification and treatment of risk factors for heart disease and stroke.*

Oregon needs more effective methods of helping patients and their health care providers manage high blood pressure through a combination of community and clinic-based programs. Community health efforts and medical practitioners need to find creative ways to work together to focus on more aggressive risk factor identification and management.

Newer studies continue to show the benefits of improved physical activity, diet, and weight reduction, but we need to identify better ways of motivating initiation and maintenance of these powerful interventions for prevention and treatment of heart disease and stroke risk factors.

“Heart disease and stroke are largely preventable. Years of research have indicated that controlling high blood pressure and high blood cholesterol reduces a person’s risk of developing heart disease or having a heart attack or stroke. Stopping smoking, eating a heart-healthy diet, being physically active, maintaining a healthy weight, and controlling diabetes can also help decrease a person’s risk for heart disease and stroke.”

—U.S. Centers for Disease Control and Prevention

What Is Quality Health Care?

The Institute of Medicine defines quality healthcare in terms of six core aims for continuous improvement. Quality care is safe (avoids injuries to patients); effective (provides services based on science); patient-centered (respectful and responsible to patient preferences and needs); timely (reduces wait and harmful delays); efficient (avoiding waste of equipment, supplies, ideas and energy); and equitable (providing care that does not vary in quality because of personal characteristics).

“Quality” care is based on continuous healing relationships and customized to patient needs and values. The patient is the source of control. Knowledge and information flows freely between clinicians and patients. Decisions are based on scientific evidence and the patient’s safety is a system property. Information about care has transparency for informed

QUALITY HEALTH CARE continued...

QUALITY HEALTH CARE continued...

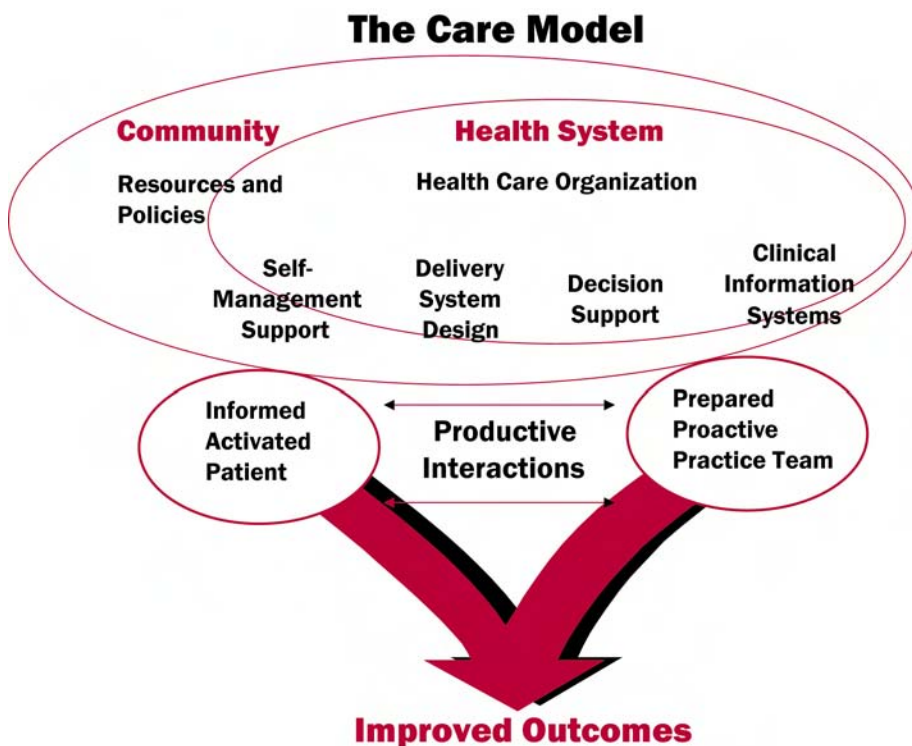
patient decisions. Quality care anticipates what patients need, continuously decreases waste, and makes cooperation among clinicians a priority in order to appropriately exchange information to ensure coordination of care.

When health care achieves major gains in the six core areas of quality, patients will experience care that is safer and more reliable, integrated, available and responsible to their needs. Patient receiving quality care can count on receiving the full array of services likely to prove beneficial.

The Care Model

The Chronic Care Model (also known simply as the Care Model) is a framework for improving the quality of care for chronic conditions. The Care Model promotes productive interactions between an informed, activated patient and a prepared, proactive practice team that uses evidence-based clinical management, collaborative treatment plans, effective therapies, self-management support and sustained follow-up.

Figure 14: The Care Model



OBJECTIVE:



Increase the proportion of Oregonians achieving clinical standards for controlled high blood pressure and cholesterol.

STRATEGIES:

- ♥ Encourage health systems and care providers to monitor and report the proportion of patients achieving clinical standards for blood pressure and cholesterol control.
- ♥ Provide training and technical assistance to help clinics design their practices to deliver high quality, culturally and individually appropriate disease management as defined by The Care Model.
- ♥ Provide information to clinics and health systems regarding the development of registries for heart disease and stroke risk factors and how to make use of these registries for quality improvement.
- ♥ Encourage purchasers and health plans to provide incentives for health care providers to report and improve the proportion of patients achieving clinical standards for blood pressure and cholesterol control.

Registries are tracking systems that manage care on a population basis. Registries improve the quality of care by helping clinicians track patient care, prompt action through evidence-based decision support, monitor individual management and outcomes, and report aggregate quality results.

Treatment goals⁶ for blood pressure management have changed. We now know that starting at 115/75, risk for cardiovascular disease doubles with each additional 20/10 increment in blood pressure. Treatment of high blood pressure can reduce the chance of stroke by 35-40 % and heart attack by 20-25%. More aggressive drug management using at least two different medications is now recommended to achieve goals.

⁶ *Expert panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults. Executive summary of the third report of the National Cholesterol Education Program (NCEP) expert panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). Journal of the American Medical Association 2001: 285(19), 2486-2497.*

National High Blood Pressure Education Program. Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure. U.S.

U.S. Preventive Services Task Force. Guide to Clinical Preventive Services, 2nd Edition. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 1996.

MEASURING IMPROVEMENT:***Indicator:***

- 1) Proportion of Oregonians diagnosed with high blood pressure who maintain blood pressure in the target range.
- 2) Proportion of Oregonians diagnosed with elevated low-density lipoprotein who maintain LDL in the target range.

Data source: (1 and 2) Health Plan Employer Data and Information Set[®] (HEDIS).

Criteria for success:

- 1) By June 2011, the proportion of Oregonians diagnosed with high blood pressure who maintain blood pressure in the target range will increase by 5%.
- 2) By June 2011, the proportion of Oregonians diagnosed with elevated LDL who maintain LDL in the target range will increase by 5%.

OBJECTIVE:



Increase the number of patients with cardiovascular disease, cerebrovascular disease, and diabetes who participate in self-management behaviors to reduce their risk for acute events and improve their quality of life.

STRATEGIES:

- ♥ Promote access to home monitoring equipment, supplies, and education.
- ♥ Support training for health care providers on effective communication with patients to facilitate setting self-management goals.
- ♥ Promote systems and incentives that support chronic disease self-management such as data registries, outcome reports, and pay for performance.
- ♥ Promote disease self-management training that's accessible, as well as culturally, individually, and family appropriate.

Self-Management: Although we commonly think of disease management in terms of health care settings, people with chronic conditions actually manage their health wherever they spend their time: at home, at work, and in other community settings. Many types of resources—including healthy cooking classes, safe places to exercise and assistance with appropriate goal setting—can help people become active partners in the management of their health.

The National Committee on Quality Assurance facilitates quality heart disease, stroke, and diabetic primary care through Physician Recognition programs: www.ncqa.org

MEASURING IMPROVEMENT:

Indicator:

- 1) Number of Oregonians with cardiovascular disease or diabetes who have completed Living Well with Chronic Conditions chronic disease self-management workshops.
- 2) Proportion of Oregonians with diabetes who practice self-management behaviors.

Data source:

- 1) CDSMP evaluations and participation lists.
- 2) Behavioral Risk Factor Surveillance System (BRFSS).

Criteria for success:

- 1) By June 2011, the number of Oregonians with heart disease, stroke or diabetes who have completed Living Well with Chronic Conditions workshops will increase by 5%.
- 2) By June 2011, the proportion of Oregonians with diabetes who practice self-management behaviors will increase by 5%.

American Heart Association's "A Heart of Diabetes" is a tool to help people with diabetes manage their risk of heart disease: americanheart.org

OBJECTIVE:



Increase the proportion of Oregon employers providing health insurance benefits and worksite programs for tobacco cessation, blood pressure and cholesterol control, and chronic disease self-management.

STRATEGIES:

- ♥ Use proven worksite health promotion tools to engage benefits purchaser groups in understanding the burden of heart disease and stroke for employers.

- ♥ Develop partnerships between employee benefits purchasers, employers, and health plans to disseminate information on cost-savings resulting from worksite health promotion programs that identify and control risk factors for heart disease and stroke.

- ♥ Provide training and technical assistance for worksites to assist development and implementation of policies and environmental supports targeting risk factors for heart disease and stroke.

MEASURING IMPROVEMENT:

Indicator: Proportion of employers providing benefits to cover smoking cessation, blood pressure and cholesterol control, and chronic disease self-management.

Data source: Healthy Worksite Initiative Employer Survey.

Criteria for success: By June 2011, the proportion of Oregon employers providing insurance benefits to cover smoking cessation, blood pressure and cholesterol control, and chronic disease self-management will increase by 5%.

OBJECTIVE:



Increase awareness among Oregonians about risk factors for heart disease and stroke.

STRATEGIES:

- ♥ Promote community education and screening opportunities regarding blood pressure and cholesterol goals so that Oregonians “know their numbers.”
- ♥ Employ primary care encounters to enhance awareness of risk factors.
- ♥ Partner with diabetes organizations to highlight diabetes as a major risk factor for heart disease and stroke.

Risk Factors

Extensive research has shown that certain factors increase the risk of heart disease. Many of these risk factors may be reduced or eliminated by lifestyle changes. Modifiable risk factors for heart disease are:

- ♥ **Exposure to tobacco smoke**
- ♥ **High blood cholesterol**
- ♥ **High blood pressure**
- ♥ **Physical inactivity**
- ♥ **Obesity and overweight**
- ♥ **Diabetes**

Source: American Heart Association Heart and Stroke Facts, 2003

Diabetes and Risk for Heart Disease and Stroke

Diabetes is one of the most serious risk factors for cardiovascular disease, dramatically increasing the risk of both heart attacks and strokes. Adults with Type II diabetes have the same risk of having a heart attack as a person without diabetes who has already suffered a heart attack. Studies have demonstrated major reduction in the risk of heart attack and stroke for patients treated aggressively to lower blood cholesterol and blood pressure. Adding low-dose aspirin further reduces risk.

MEASURING IMPROVEMENT:

Indicator: Proportion of Oregonians who are aware of risk factors for cardiovascular disease.

Data source: Behavioral Risk Factor Surveillance System.

Criteria for success: By June 2011, the proportion of Oregonians who are aware of risk factors for cardiovascular disease will increase by 5%.

Acute Care

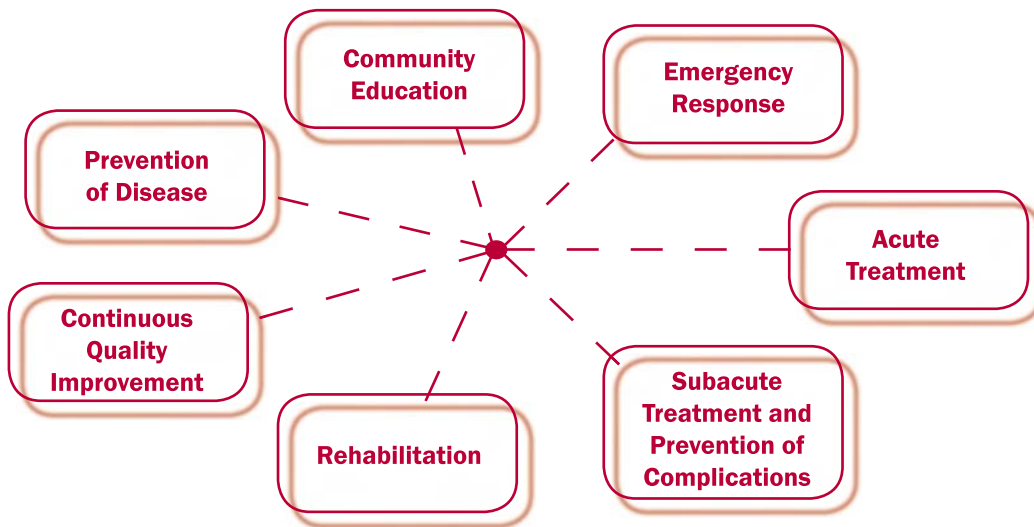
GOAL: Oregon provides timely, appropriate care for people experiencing acute cardiac and stroke events.

In order to achieve the goal of providing timely, appropriate care for all Oregonians experiencing cardiac and stroke events, a variety of partners must work together to ensure that care is effectively delivered. Ideally, systems for care link components from patient recognition of symptoms through 911 dispatch, EMS services and hospital care.

Oregonians need to know the signs and symptoms of a heart attack and stroke, and the appropriate actions to take. Delivery of appropriate treatment as defined by established guidelines is imperative. Information regarding quality outcomes related to heart disease and stroke care must be publicly available to drive changes in policy and practice.

While Oregon has an existing system for acute trauma, the state lacks systems for care⁷ that recognize and treat acute coronary events and acute stroke as time-critical events, and that can provide the highest levels of care to as many residents as possible. Although components of acute heart and stroke systems for care are in place in some areas of the state, they often operate in isolation because of inadequate linkages and lack of coordination.

Figure 15: Components of a Comprehensive Cardiac/Stroke System for Care



⁷ American Stroke Association’s Task Force on the Development of Stroke Systems. Recommendations for the Establishment of Stroke Systems of Care. *Stroke* 2005; 36:000-000.

OBJECTIVE:



Increase the proportion of Oregonians who are aware of the early warning signs and symptoms of heart attack and stroke and know the appropriate actions to take.

STRATEGIES:

- ♥ Incorporate messages to high-risk patients, regarding signs and symptoms and the importance of creating an emergency action plan, into existing health education opportunities.
- ♥ Promote public awareness through workplace and community campaigns of the signs and symptoms of heart attack and stroke and the need to call 9-1-1 and seek immediate care if they occur.

Know CPR? Everyone is part of the chain of survival. CPR training prepares individuals to respond in an emergency. Whether taking a class or using the CPR Anytime tool, a self-directed teaching tool, the public can learn what to do until EMS arrives on the scene: www.americanheart.org

Why Time Matters

Heart attack and stroke are life-and-death emergencies. Heart attack and stroke victims can benefit from new medications and treatments unavailable to patients in years past. For example, clot-dissolving drugs can stop some heart attacks and strokes in progress, reducing disability and saving lives.

But to be effective, these drugs must be given relatively quickly after heart attack or stroke symptoms first appear. Every second counts. Everyone should be able to recognize the signs and symptoms of heart attack and stroke and to know how to take appropriate action. The quality of acute care, timeliness of response as well as provision of services, sets the stage for the level of success of rehabilitation and recovery efforts.

MEASURING IMPROVEMENT:

Indicator:

- 1) Proportion of Oregonians aware of early signs of heart attack and of appropriate actions.
- 2) Proportion of Oregonians aware of early signs of stroke and of appropriate action.

Data source: Behavioral Risk Factor Surveillance System.

Criteria for success:

- 1) By June 2011, the proportion of Oregonians who know the early signs of heart attack and the appropriate action to take will increase by 5%.
- 2) By June 2011, the proportion of Oregonians who know the early signs of stroke and the appropriate action to take will increase by 5%.

OBJECTIVE:

Increase the proportion of Oregonians to whom information from local health systems is publicly available regarding quality outcomes related to heart disease and stroke care.

STRATEGIES:

- ♥ Encourage hospital systems to publicly report the quality of care for heart attack and stroke treatments.
- ♥ Encourage emergency medical service provider agencies to publicly report pre-hospital information for heart attack and stroke care.
- ♥ Encourage cardiac surgeons and hospitals to publicly report meaningful information about the quality and cost of their cardiac and cardiovascular surgeries and procedures.
- ♥ Encourage purchasers and health plans to provide incentives for health care providers and hospitals to report and improve quality of heart disease and stroke care.

“As health care costs skyrocket, consumers are faced with both more financial responsibility for the cost of health care and a need for better information to help them make decisions on the quality of their care. Eventually, everyone will be faced with an important healthcare decision for either themselves or a family member: which hospital, which procedure, what is best practice?”

—Nancy Clarke, Executive Director, Oregon Health Care Quality Corporation

MEASURING IMPROVEMENT:

Indicator: Number of health systems reporting quality outcomes data related to cardiovascular care.

Data source: Oregon Insurance Division Web site; other reporting forums under development.

Criteria for success: By June 2011, the number of health systems reporting quality outcomes data related to cardiovascular care will increase by 5%.

OBJECTIVE:



Among Oregonians experiencing a heart attack or stroke, increase the proportion receiving appropriate treatment defined by established guidelines.

STRATEGIES:

- ♥ Strengthen partnerships between state and regional emergency medical systems, emergency departments, and in-patient care facilities to improve patient outcomes through education, communications, data transfer, and utilization of established guidelines.
- ♥ Support the review and revision of Oregon state emergency medical service statutes and administrative rules for response to heart disease and stroke-related events.
- ♥ Support policy development that involves stakeholders to create clear emergency transport protocols and systems so that suspected acute care patients are treated in prepared hospitals.
- ♥ Review the need for policy that ensures a statewide registry for pre-hospital care exists and is used for quality improvement.
- ♥ Enable the creation of statewide registries that include emergency medical services, emergency departments, and hospital data for heart attack and stroke.
- ♥ Promote training for acute care staff on established guidelines for heart disease and stroke management.

MEASURING IMPROVEMENT:

Indicator:

- 1) Proportion of Oregonians seen acutely for stroke care who receive (defined) appropriate care.
- 2) Proportion of Oregonians seen acutely for heart attack who receive (defined) appropriate care.

Data source:

- 1) Hospital stroke registry reports.
- 2) Hospital myocardial infarction registry reports.

Criteria for success:

- 1) By June 2011, the proportion of Oregonians seen acutely for stroke care who receive (defined) appropriate care will increase by 5%.
- 2) By June 2011, the proportion of Oregonians seen acutely for heart attack who receive (defined) appropriate care will increase by 5%.

Guidelines

Guidelines for care of acute coronary events and acute stroke are revised regularly based on new scientific evidence. Adherence to these guidelines means that patients get the best possible care, and health systems have a benchmarking system for accreditation and quality improvement.

Existing guidelines-based tools for acute heart and stroke care include:

- ♥ American Heart Association's:
 - ♥ Emergency Cardiovascular Care Guidelines for Pre-hospital and In-hospital Basic and Advanced Cardiac Life Support Care
 - ♥ Get with the Guidelines for Cardiac and Stroke Patient Management and Secondary Disease Prevention (www.americanheart.org)
- ♥ American College of Cardiology's Guidelines Applied in Practice (www.acc.org)
- ♥ National Registry of Myocardial Infarction (www.nrmi.org)
- ♥ National Registry of Cardio-Pulmonary Resuscitation (www.nrcpr.org)

Rehabilitation, Long-Term Care, and End-of-Life Care

GOAL: *Rehabilitation, long-term care and end-of-life care in Oregon ensures quality of life for people with heart disease and stroke.*

In addition to the common theme of continuity of care, wherein quality care is provided across care settings, the areas of rehabilitation, long-term care, and end-of life care all share the common threads of pronounced access disparities and policy issues. Disparities in access are most likely to be felt greatest in these areas, and an unrecognized need exists for policy supports to ensure availability and access to services for all these topic areas.

Oregon has many multi-disciplinary rehabilitation programs, a host of long-term care facilities that include home and community-based settings, and has gained national attention for progressive end-of life options. Despite this apparent wealth of resources, the need for adequate insurance coverage to provide appropriate levels of services, and the need for policy to ensure availability of services, is unrecognized. Few Oregonians are well enough prepared for these futures.

“Stroke leaves many survivors with significant lasting impairments. Two trends—the increasing number of older adults in Oregon, and the availability of new therapies for acute stroke—indicate an increase in the number of stroke survivors living with disabilities. Increased numbers of stroke survivors will place increased demands on rehabilitation efforts and services, making the issue of how to best limit stroke-related disability and health risks a major concern for healthcare providers in rehabilitation.”

—*American Stroke Association*

Rehabilitation

Rehabilitation is the use of therapy to restore function in people who are permanently or temporarily disabled. Rehabilitation services are critical to the recovery of health and independence for people who have experienced disability due to heart disease or stroke. Ideally, patients receive services from an integrated team that focuses on the patient's goals and functional status to achieve the best possible outcome.

The team must be sensitive to the patient's cultural background and help the patient's family adjust to the changes in lifestyle, roles and responsibilities that can result from major medical events. Findings from initial assessments of patient needs determine recommended interventions. Rehabilitation interventions are delivered in a variety of forms and venues, including community-based and home-based options in addition to traditional clinic-based services.

OBJECTIVE:

Increase the percentage of Oregonians with heart attack, heart failure, and stroke receiving timely, culturally, and individually appropriate evidence-based rehabilitation services.

STRATEGIES:

- ♥ Advocate for health care coverage that includes rehabilitation services for Oregonians with heart disease and/or a history of stroke.
- ♥ Promote awareness of essential elements of rehabilitation services for heart disease and stroke within health plans, employer, and benefits purchaser groups.
- ♥ Promote public awareness of available rehabilitation services for heart disease and stroke to empower Oregonians in making health care choices.
- ♥ Empower Oregonians in making health care choices regarding rehabilitation services for heart disease and stroke.
- ♥ Provide training and technical assistance in Oregon on evidence-based practices to ensure heart disease and stroke patients are consistently evaluated and referred to appropriate rehabilitation services.
- ♥ Coordinate efforts among health care and social services providers that result in effective rehabilitation and return the individual to an optimal level of functioning.

“Comprehensive cardiac rehabilitation has been shown to reduce re-hospitalization rates, reduce recurrent sudden cardiac death, lessen the need for cardiac medications, and increase the rate of persons returning to work. Including cardiac rehabilitation in intervention plans for patients with heart disease remains a key strategy for reducing further disability and death.”

—U.S. Centers for Disease Control and Prevention

MEASURING IMPROVEMENT:

Indicator: Indicator(s) will be determined as part of initial efforts.

Data source: Source(s) for data will be identified as part of initial efforts.

Criteria for success: Appropriate expectations for change will be determined as part of initial efforts.

Long-Term Care

Long-term care is required when a person needs assistance with physical or emotional needs over an extended period of time. Depending on how much functional ability the person regains, the need for long-term care can last from weeks to years.

The vast majority of Oregonians receive long-term care in home or community-based settings—a result of Oregon being one of the first states to obtain a Medicaid waiver allowing for state reimbursement of services outside of nursing homes. Oregon's long-term care system was designed to support individual independence and choice. However, Oregon's growing population of older adults increases the need to develop effective prevention strategies, appropriate treatment guidelines for individuals with varying needs, and communities that can effectively support older adults and those with chronic conditions.

Like all states, Oregon also faces a potential shortage of qualified caregivers to work within long-term care settings. Turnover and vacancy rates among licensed nurses and certified nurse assistants in Oregon nursing homes are at an all-time high. When addressing the importance of evidence-based treatment for Oregonians in long-term care, it is important to keep in mind that this extends to all health-related issues tied to heart disease and stroke. For example, pressure ulcers, problems with adequate nutrition, and aspiration pneumonia are potential adverse outcomes for a person with stroke. Caregivers need appropriate training in the best practices for preventing these problems, keeping the focus on the best possible quality of life for the individual.

Person-Centered Care

- ♥ Knowing the person as an individual and being responsive to individual and family characteristics.
- ♥ Providing care that is meaningful to the person in ways that respect the individual's values, preferences, and needs.
- ♥ Emphasizing freedom of choice and individually defined, reasonable risk taking.
- ♥ Fostering development of consistent and trusting caregiver relationships.

Long-Term Care Services

Custodial care, considered traditional long-term care, involves services and supplies that can be given safely and reasonably by people without specific medical skills or licensure. Oregon's Continuum of Long-Term Care includes:

- ♥ In-Home Services
- ♥ Substitute Homes
 - ♥ Adult foster care
 - ♥ Residential care
 - ♥ Assisted living
- ♥ Institutions (i.e., nursing facilities)

Skilled care refers to services and supplies that can be given only by or under the supervision of skilled or licensed medical personnel. It may be provided to improve the quality of health care of patients or to maintain or slow the deterioration of a patient's condition.

OBJECTIVE:

Increase the percentage of Oregonians receiving appropriate, evidence-based long-term care for heart disease and stroke.

STRATEGIES:

- ♥ Identify evidence-based practices for quality, person-centered long-term care for Oregonians with heart disease and stroke.
- ♥ Identify, recognize, and promote exemplars of “best practices” for long-term care for Oregonians with heart disease and stroke.
- ♥ Develop systems, including those for electronic medical records, which ensure continuity of care when Oregonians with heart disease and stroke are transferred between care settings.
- ♥ Provide statewide training and dissemination of information to support implementation of evidence-based practices and improved continuity of care systems.

MEASURING IMPROVEMENT:

Indicator: Indicator(s) will be determined as part of initial efforts.

Data source: Source(s) for data will be identified as part of initial efforts.

Criteria for success: Appropriate expectations for change will be determined as part of initial efforts.

End-of-Life Care

In the past three decades, strong public advocacy has built a framework of high quality care options for the end of life. Yet even in Oregon, a state recognized as a leader in end of life care, there is much room for improvement.

Oregon's Health Care Decisions Act of 1993 established a wide variety of patient rights at the end of life. Almost every Oregonian knows that he or she may choose physician-assisted suicide under provisions of the Death With Dignity Act, as death approaches. Fewer Oregonians know about other end of life choices.

In Oregon, advance directives are respected.

When the POLST (physician orders for life-sustaining treatment) is in place, a person's wishes are respected. While more Oregonians have advance directives than in any other state, many more should have them. Pain management is taken seriously, but many Oregonians still experience pain in their last week of life.

Every Oregonian has access to hospice, and the state's hospice utilization rate is among the highest in the nation. Yet while hospice eligibility starts when a person has 183 days of life expectancy, half of Oregon's hospice patients die within 15 days of admission.

The focus on improving end of life care for people with heart disease and stroke must shift to better public education and consumer empowerment. Oregonians will have to share the responsibility—with the health care system—to get what they say they want at the end of life. The time to make decisions about end of life options is well before a health care crisis occurs.

Hospice care is a family-centered approach to end of life care. The majority of hospice patients are cared for in their own homes. Typically, a family member serves as the primary caregiver. Members of the hospice staff make regular visits to assess the patient and provide additional care or other services. Hospice care also covers bereavement support for family members.

There is an increasing realization that discussions of end of life preferences and options need to be part of routine individual and healthcare planning, rather than something raised in final stages of life. Oregon has a tradition of open discussion of end of life issues, with its passage of the Death with Dignity Act in 1997 and some of the oldest hospice services in the country.

However, more work remains in starting discussions early in life, open discussion with healthcare providers of both aggressive and palliative treatment options, and providing education on the role and benefits of hospice care services.

OBJECTIVE:



Increase the practice of early and routine discussion of treatment options, advance directives, and choices at the end of life for Oregonians with heart disease and stroke.

STRATEGIES:

- ♥ Facilitate conversations about end of life choices within and between health care, education, community, and worksite organizations.

- ♥ Present information about end of life choices in Oregon to those who set policy regarding end-of-life options.

- ♥ Identify and promote awareness of resources regarding end-of-life choices.

- ♥ Provide statewide educational training pertaining to end-of-life choices.

- ♥ Develop research projects to measure effectiveness of current practices for heart disease and stroke associated with end-of-life choices.

MEASURING IMPROVEMENT:

Indicator: Indicator(s) will be determined as part of initial efforts.

Data source: Source(s) for data will be identified as part of initial efforts.

Criteria for success: Appropriate expectations for change will be determined as part of initial efforts.

Data Surveillance and Outcomes Management

GOAL: Oregon has the ability to collect and disseminate data about heart disease and stroke in ways that are accessible and useful.

Surveillance and evaluation are critical components of Oregon's Statewide Plan for Heart Disease and Stroke Prevention and Care. Surveillance provides information about where we are currently in our efforts to reduce cardiovascular disease in Oregon.

Knowing where we are currently allows us to make informed decisions about where to focus our efforts. Evaluation provides information about how successful those efforts have been. To evaluate implementation of the Statewide Plan, we will pursue new sources of information about clinical outcomes. Together, surveillance and evaluation allow us to better define our goals, and they allow us to identify the best ways to achieve those goals.

“Oregon's employers, health insurers, policy makers and consumers are increasingly interested in information about how well health care is being delivered. Clinicians benefit from meaningful information about strengths and areas for improvement. Consumers and purchasers benefit from information to help make value-based decisions. Health plans assist by aligning payment systems that reward investments in infrastructure to improve quality. None of these benefits will be achieved, however, without a common approach to sound measurement.”

—Nancy Clarke, Executive Director, Oregon Health Care Quality Corporation

Electronic Medical Records as Data Sources

Although the United States has one of the most technologically advanced health care systems in the world, it relies predominantly on a 19th century record keeping system. Electronic health records that can exchange information across delivery settings will help improve the quality and efficiency of clinical care.

It is nearly impossible to provide optimal care to all patients with cardiovascular disease or risk factors for cardiovascular disease using a paper record, because the data are stored in individual patient charts. High quality electronic health records (EHR/EMR) store patient information in a database that clinicians and others can use to assess and plan care for all patients in the practice, including those who rarely come to the office. We will see remarkable improvements in prevention and secondary prevention of cardiovascular disease if the proactive care capabilities of electronic health records are fully utilized.

OBJECTIVE:

Increase dissemination and use of available data about heart disease and stroke to drive policy change and quality improvement.

STRATEGIES:

- ♥ Convene leaders in health systems using electronic health records to develop a common approach to measuring and using population-level data.
- ♥ Promote the development of systems that securely exchange electronic health information across settings of care so that patients' critical data is available when and where it is needed.
- ♥ Provide easily accessible and easy-to-use data and information about how to use it that is supportive to legislative, community, and program-level decision-making processes.
- ♥ Work with the Oregon Office of Health Care Policy and Research to identify quality of hospital care measures for heart disease and stroke and make these measures easily available to consumers.

MEASURING IMPROVEMENT:*Indicator:*

- 1) Number of requests for DHS "*Heart Disease and Stroke Prevention Program Annual Report.*"
- 2) Number of media articles in which data collected by HDS Coordinating Council partners is cited.
- 3) Number of clinics participating in quality improvement programs that use heart disease and stroke data to improve care systems.

Data source:

- 1) Heart Disease and Stroke Prevention Program Activity Log.
- 2) To be identified.
- 3) OMPRO Health Collaborative Log.

Criteria for success:

- 1) By June 2011, annual number of requests for the Annual Report will show an increase.
- 2) To be identified.
- 3) By June 2011, the number of clinics participating in a quality improvement program that uses heart disease and stroke data to improve care systems will increase by 5%.

OBJECTIVE:



Increase the number of useful indicators describing prevention and management of heart disease and stroke for which data are available.

STRATEGIES:

- ♥ Develop a statewide system to monitor identification, treatment, and outcomes of high cholesterol, high blood pressure, and diabetes.
- ♥ Promote development of systems and policy that ensures the collection of evidence-based data for quality improvement and effective management of acute cardiac events and stroke.
- ♥ Support the expansion and use of Oregon's statewide pre-hospital registry for heart disease and stroke indicators.

MEASURING IMPROVEMENT:

Indicator: Number of indicators relevant to cardiovascular disease health status for which data are available.

Data source: The DHS publications “*Keeping Oregonians Healthy*” and “*Heart Disease and Stroke Prevention Program Annual Report*.”

Criteria for success: By June 2011, the number of cardiovascular health status and health care quality indicators for which statewide data is reported will increase by 5%.

OBJECTIVE:



Increase the number of useful indicators for which data are available that identify and track disparities relating to heart disease and stroke.

STRATEGIES:

- ♥ Use existing and emerging surveillance systems to more completely define and track disparities relating to heart disease and stroke.

MEASURING IMPROVEMENT:

Indicator: Number of indicators relevant to cardiovascular disease health status for which data are available to identify and track disparities based on race, ethnicity, area of residence and socioeconomic status.

Data source: The DHS publications “*Keeping Oregonians Healthy*” and “*Heart Disease and Stroke Prevention Program Annual Report*.”

Criteria for success: By June 2011, the number of cardiovascular health status indicators for which regional, race, ethnicity, and socioeconomic data are available will increase by 5%.

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