Introduction

The purposes of this report are to identify areas for the Nebraska Cardiovascular Health (CVH) Program to focus programmatic activities, provide support for the development of a comprehensive state plan for heart disease and stroke, and to increase awareness among key decision makers in Nebraska of the need for increased attention and funding to address CVD. Therefore, this report contains Nebraska data on CVD mortality, medical care and expenses, drug prescriptions, risk factors, and barriers to the primary and secondary prevention of CVD. In addition, this report identifies gaps in the available CVD data that will help guide future data collection decisions.

In the fall of 2000, the CVH Program of the Nebraska Health and Human Services System received funding from the Centers for Disease Control and Prevention (CDC) for capacity building. The funding focuses on building alliances and consensus mechanisms that will result in heart disease and stroke prevention and control.

One requirement of the CDC funding is to identify priority populations (or populations on which the CVH program will dedicate significant time and effort). These populations may comprise any combination of the following: age, gender, race and ethnicity, geographical regions, socioeconomic status, or any other factor that causes one group to be at higher risk for CVD than another group.

This report will provide the foundation for the development of a comprehensive state plan for heart disease and stroke, which will coincide with the release of this report. Once the state plan is complete, a new state heart disease and stroke task force will be formed. This task force will consist of individuals from diverse backgrounds from both public and private sectors. The task force will help to evaluate the state plan and address the most important heart disease and stroke issues in Nebraska.

Background Information on Cardiovascular Disease

Cardiovascular disease includes all diseases of the heart and blood vessels, including coronary heart disease, stroke, congestive heart failure, hypertensive disease, and atherosclerosis. CVD is also commonly referred to as “diseases of the circulatory system.” Cardiovascular disease is a chronic disease, with a latency period that often extends over decades.

According to CDC figures, 64.4 million Americans (more than 1 in every 5 U.S. residents) currently have one or more forms of CVD[1]. According to the American Heart Association, both coronary heart disease and stroke are leading causes of serious, long-term disability in the United States.

Cardiovascular disease is the leading cause of both hospitalization and death in America. Currently, CVD is the leading cause of death in the United States among both genders and all racial and ethnic groups (except Asians), killing more than 925,000 Americans each year[2]. Furthermore, hospitalizations due to CVD are increasing nationally[3].

Through extensive research, almost all of the risk factors for CVD have been identified. Each of these risk factors can be categorized as preventable (those over which the individual has control)

or non-preventable (those over which the individual has no control) (Table 1). Fortunately, research has shown that most CVD risk factors are modifiable through simple lifestyle choices. While extensive efforts have been made in recent decades to improve these risk factors; many of these efforts have not been successful. This lack of successful behavior change can be attributed in part to societal barriers discouraging healthy behavior.

Some comparisons address the importance of CVD[4]:

- If CVD, in all its forms, were eliminated, American life expectancy would rise by nearly 7 years. In contrast, if all forms of cancer were eliminated, life expectancy would increase by 3 years.
- Of all children born today, nearly half (47%) are expected to die from CVD. In contrast, 22 percent are expected to die from cancer.

Table 1:
Risk Factors for CVD

Preventable Risk Factors

- Type-2 Diabetes
- High Blood Cholesterol
- High Blood Pressure
- Lack of Physical Activity
- Overweight and Obesity
- Unhealthy Eating
- Smoking

Non-Preventable Risk Factors

- Increasing Age
- Male Gender
- Race/Ethnicity
- Family History of Premature CVD

The economic burden that CVD and its associated risk factors place on society is enormous, and appears to be increasing at an unexpectedly rapid pace. The cost of CVD in the United States in 2004 is estimated to be $368.4 billion[1].

The Future Outlook of CVD

There are a variety of factors indicating that the burden of CVD is likely to increase in future years. In particular, over the past decade, the prevalence of both obesity and type-2 diabetes has increased at an alarmingly high rate. This increase in obesity and type-2 diabetes has contributed to an increase in hypertension, hyperlipidemia, and atherosclerotic vascular disease among U.S. residents[5]. In addition, today's younger generations are largely overweight and engaging in unhealthy behaviors that place them at increased risk for CVD.

Another factor indicating that the burden of CVD is likely to increase in future years is the aging of the population. In recent years, the older adult population has increased dramatically and is likely to continue to increase into future decades. According to the U.S. Census, it is estimated that by the year 2010, there will be 40 million Americans aged 65 and older. This aging of the population will result in more coronary artery disease, heart failure, and stroke[6].

Cardiovascular disease is a major health problem that drains the state's economy, overburdens the health care system, and sickens or kills thousands of Americans prematurely, yet it is largely preventable. For these reasons, it is important that CVD is a leading heath concern in Nebraska. CVD must receive adequate attention and funding if future successes are to be obtained. Prevention and control of CVD are possible through collaborative efforts of dedicated professionals, community support, education, and policy and environmental changes that support cardiovascular health.