

# Heart Disease and Stroke Facts: Heart Attack and Stroke and Multiple Risk Factors in Alaska

## What is a Risk Factor for Cardiovascular Disease?

A risk factor is a behavior or condition associated with an increased risk of heart disease or stroke. The more risky behavior, or severity of the condition, the greater the risk of cardiovascular disease. More than one risk factor compounds the risk of cardiovascular disease.

The following are considered the main risk factors for heart disease and stroke:

- Cigarette smoking
- Diabetes
- Overweight and Obesity



## Why are Risk Factors for Cardiovascular Disease Risk

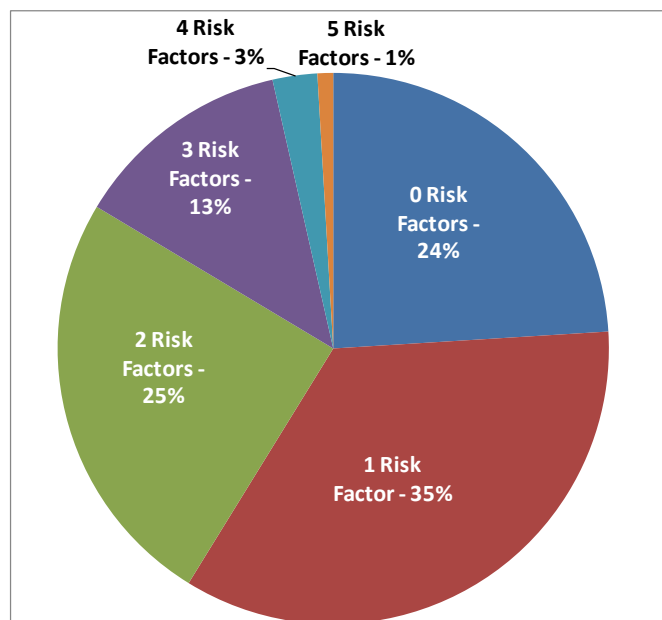
### Factors?<sup>1</sup>

Cardiovascular disease begins with formation of plaques, or fatty buildup, on arterial walls. Damage to the arterial wall by high blood pressure or other mechanism begins the process. A heart attack or stroke occurs when a plaque ruptures and the body's defenses form a mass of cells and clots. The clot then can block blood flow completely.

- Cigarette smoking speeds up the formation of plaques in your arteries and promotes the rupture of the plaques.
- Diabetes thickens and hardens blood vessels in your body. The reduced ability of the vessels to supply oxygen forces the heart to work harder when its own oxygen supply may be diminished.
- Obesity is associated with high blood pressure, high cholesterol, and diabetes.
- Physical inactivity is associated with obesity, high blood pressure, and high cholesterol.
- High blood pressure speeds up formation of plaques in the artery walls. High blood pressure also enlarges the heart increasing the heart's oxygen demand.
- High blood cholesterol is an indicator of the amount of fat circulating in the blood and potentially depositing on arterial walls as plaques.

## Multiple Risk Factors and Cardiovascular Disease in Alaska

- Heart disease was the 2<sup>nd</sup> leading cause of death in Alaska in 2006<sup>2</sup>
- In 2007, heart disease accounted for over one third of total hospitalization costs for Alaska at \$515 million<sup>1</sup>
  - Stroke was the 4<sup>th</sup> leading cause of death in Alaska in 2006<sup>2</sup>
  - Stroke is a leading cause of functional impairments, with 15-30% being permanently disabled<sup>1</sup>
  - Only one in five Alaskans are estimated to have no risk factors for heart disease and stroke<sup>3</sup>
  - Over third of Alaskans have one risk factor<sup>3</sup>
  - Over 43% of Alaskans have two or more risk factors<sup>3</sup>
  - Men who reach age 50 with no risk factors have a 5% lifetime risk of developing cardiovascular disease. 50 year old men with two risk factors have a 70% lifetime risk<sup>5</sup>
- Alaskan men are more likely to have two or more risk factors than Alaskan women<sup>1</sup>
- Alaska Natives and rural Alaskans are more likely to have two or more risk factors than whites or urban Alaskans<sup>1</sup>
- The prevalence of multiple risk factors decreases with higher income and more education<sup>1</sup>



<sup>1</sup>Alaska Behavioral Risk Factor Surveillance System; <sup>2</sup>Youth Risk Behavior Survey (YRBS); <sup>3</sup>US Department of Health and Human Services, *The Burden of Heart Disease and Stroke in Alaska: Mortality, Morbidity, and Risk Factors*, available at: [http://www.hss.state.ak.us/dph/chronic/chp/pubs/burden\\_Dec09.pdf](http://www.hss.state.ak.us/dph/chronic/chp/pubs/burden_Dec09.pdf); <sup>4</sup>Alaska Bureau of Vital Statistics; <sup>5</sup>Alaska Behavioral Risk Factor Surveillance System; <sup>6</sup>Lloyd-Jones DM, Leip EP, Larson MG, et al. Prediction of lifetime risk for cardiovascular diseases by risk factor burden at 50 years of age. *Circulation* 2006;113:791-798

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