low altitude. Specifically, the visitor will be more hypoxemic than the fully adapted resident. One would postulate that the combination of high altitude with carbon monoxide would pose the greatest risk to persons newly arrived at high altitude who have underlying cardiopulmonary disease, particularly because they are usually older individuals. Surprisingly, this hypothesis has never been tested adequately" (WHO 1999a). Due to physiologic adaptation, people living at high altitude are not considered generally more susceptible than patients with coronary artery disease. Because it is generally not advisable for patients with severe coronary artery disease to travel to places at high altitude, it is not considered necessary to especially take that part of the identified susceptible subpopulation (that is, patients with coronary artery disease; see below) into account when deriving AEGL values.

An estimated 62 million people in the United States (about 20% of the population) have one or more types of cardiovascular disease (American Heart Association 2002). For the major diseases within the category of total cardiovascular disease, about 50 million Americans have high blood pressure, 13 million have coronary heart disease, 4.9 million have heart failure, 4.7 million have cerebrovascular disease (stroke), and 1 million have congenital cardiovascular defects.

The prevalence of cardiovascular diseases increases with age. It is 10% for males and 4% for females at age 25-34, 51% for males and 48% for females at age 55-64, and 71% for males and 79% for females at age 75 or older (American Heart Association 2002).

Coronary heart disease caused more than one of every five deaths in the United States in 2000. Cause of death was listed as coronary heart disease in 681,000 cases and myocardial infarction in 239,000 deaths. Fifty percent of men and 63% of women who died suddenly of coronary heart disease had no previous symptoms of this disease (American Heart Association 2002).

Within the group of people with coronary heart disease, 7.6 million had myocardial infarction (heart attack) and 6.6 million had angina pectoris (chest pain) (American Heart Association 2002). The prevalence of angina pectoris in the British adult population is about 4% (Williams and Stevens 2002).

Angina pectoris is a symptom of coronary heart disease. Common features of an attack are central chest pain, pain radiating to the lower jaw or arms, and shortness of breath. The pain occurs when there is insufficient oxygen delivery to the heart, leading to ischemia. This is usually, although not exclusively, a result of an atheromatous narrowing (stenosis) in one or more of the coronary arteries. Angina can classified broadly as stable or unstable, depending on its severity and pattern of occurrence. Stable angina is typically provoked by exercise (e.g., hurrying across a street or climbing a long flight of stairs), stress, or extremes of temperature and is relieved by either rest or sublingual nitrates or both. Unstable angina is understood as anginal pain that occurs with lesser degrees of exertion, with increasing frequency, or at rest (that is, without exertion). The pain may be more severe and last longer and requires more intensive inter-