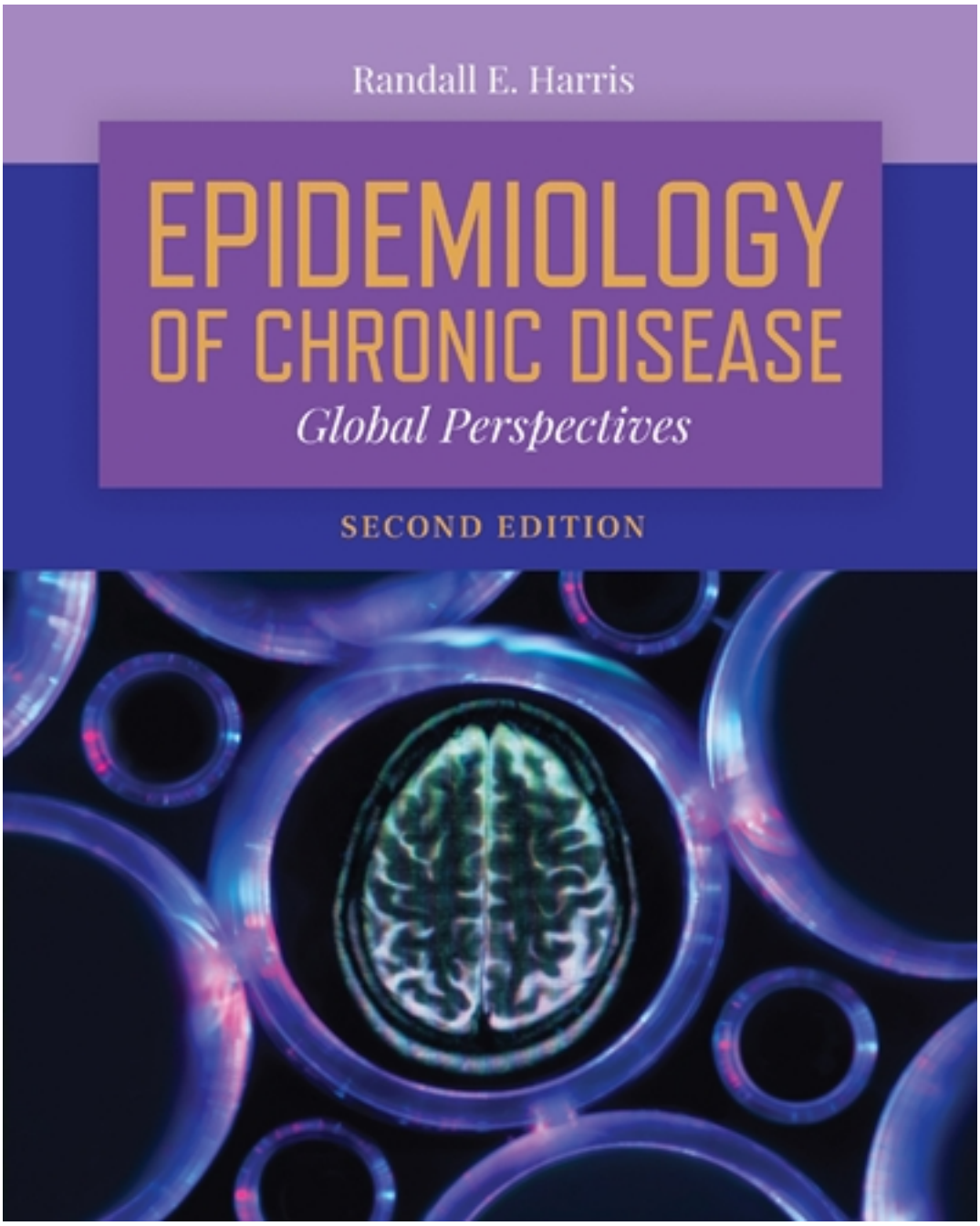
Test Bank for Epidemiology of Chronic Diseas Global Perspectives 2nd Edition by Harris

CLICK HERE TO ACCESS COMPLETE Test Bank



Test Bank

Chapter 2. Epidemiology of Cardiovascular Disease

TEST BANK

True/False Questions

1. Cardiovascular disease (CVD) is the leading cause of death worldwide.
2. The relative mortality from CVD is approximately 31%.
3. Most CVD deaths occur in high income countries.
4. Disability Adjusted Life Years (DALY) in developed countries arise primarily from premature death.
5. Disability Adjusted Life Years (DALY) in underdeveloped countries arise primarily from premature death.
6. The two major forms of CVD, ischemic (coronary) heart disease and stroke, cause approximately 25% of all deaths.
7. Since 1970, US mortality rates from coronary heart disease and stroke have declined more than 50%.
8. Since 1970, US hospitalization rates for congestive heart failure have quadrupled.
9. The global rise in CVD in developing nations reflects increases in key risk factors (*heightened consumption of westernized diets, declining physical activity, and increased tobacco addiction*) associated with

industrialization, urbanization, economic development, and market globalization.

10. Cardiovascular diseases are largely *not* preventable through public health strategies and evidence-based risk factor interventions.

Answers to True/False Questions

1. T
2. T
3. F
4. F
5. T
6. T
7. T
8. T
9. T
10. F

Multiple Choice Questions

1. The leading cause of death in the world is:

    a. cancer.

    b. cardiovascular disease (CVD).

    c. stroke.

    d. infection.

2. Global relative mortality from CVD is slightly higher than:

    a. 30%.

    b. 40%.

    c. 50%.

    d. 60%.

3. The number of annual deaths from CVD is approximately:

    a. 15 million.

    b. 16 million.

    c. 17 million.

    d. 18 million.

4. What form of CVD is *increasing* in developed nations?

    a. Coronary heart disease

    b. Stroke

    c. Congestive heart failure

d. Rheumatic heart disease

5. Which of the following statements are true?

   a. CVD mortality is 40% higher in men than women.

   b. CVD mortality is 40% higher in women than men.

   c. CVD mortality is 38% higher in African Americans than Caucasian Americans.

   d. CVD mortality is 38% higher in Caucasian Americans than African Americans.

   e. Both a and c are true.

   f. Both b and d are true.

6. Which of the following are risk factors for CVD?

   a. High LDL cholesterol

   b. Low LDL cholesterol

   c. Low HDL cholesterol

   d. High HDL cholesterol

   e. Both a and c are true.

   f. Both b and c are true.

7. Congestive heart failure arises when:

   a. the heart pumps insufficient blood.

   b. the ejection fraction falls below 50%.

c. antecedent heart disease compromises heart function.

d. All of the above are correct.

8. Which nations have recently experienced *increased* rates of CVD?

a. India

b. Latin America

c. Russian Federation

d. Australia

e. Only a, b and c are correct.

Answers to Multiple Choice Questions

1. b
2. a
3. c
4. c
5. e
6. e
7. d
8. e

Essay Questions

1. Define and discuss the various forms of cardiovascular disease.

Answer: Cardiovascular Disease (CVD) in its various forms is the leading cause of death worldwide, ranking first in both developing and developed nations. The total number of annual deaths due to CVD is nearly 18 million, approximately 31% of all deaths.

Of the 17.9 million deaths attributable to CVD in 2015, 8.9 million (50%) were due to ischemic (coronary) heart disease resulting in myocardial infarction (heart attack); 6.3 million (35%) were due to cerebrovascular disease (stroke), and almost 1 million (5%) were due to hypertensive disease, which often results in congestive heart failure. The remaining deaths were due to rheumatic heart disease and inflammatory conditions (myocarditis, endocarditis, and pericarditis), aortic aneurysms, pulmonary emboli, and other cardiovascular conditions.

2. Discuss international patterns of CVD mortality and morbidity.

Answer: Cardiovascular disease is the dominating cause of death and disability throughout the industrialized world as well as in many developing nations. Nevertheless, in developed countries such as the USA, Great Britain, Australia/New Zealand, and western European nations, deaths from CVD

have declined dramatically in the past several decades. This declining trend is undoubtedly due to major advances in the prevention and treatment of hypertension, ischemic heart disease, heart failure, and related conditions that predispose to fatal heart attacks and strokes.

Cardiovascular disease not only causes death but can also result in severe disability, particularly among those who survive a myocardial infarction or stroke. A measure of overall disease burden that is commonly used to measure the impact of *both* death and disability is *disability-adjusted life years* (DALY). The CVD burden is higher in many of the developing nations of Asia, South America, and Africa (DALY > 5,100 per 100,000) than in the more advanced societies of North America, Europe, and Australia (DALY < 3,000 per 100,000). The composition of DALY also varies by economic region. Developing nations with high DALY rates suffer more lost years of healthy life due to premature death from CVD (60-70%), whereas developed nations lose more years of healthy life due to disability from CVD (50-60%).

3. Why have CVD mortality rates declined dramatically since 1970 in developed countries such as the USA, Canada, Western Europe, and Australia?

Answer: In developed countries such as the USA, Great Britain, Australia/New Zealand, and western European nations, deaths from CVD have declined dramatically in the past several decades. This declining trend is undoubtedly due to major advances in the prevention and treatment of hypertension, ischemic heart disease, heart failure, and related conditions that predispose to fatal heart attacks and strokes.

More than half of the deaths due to CVD could be prevented through health promotion and disease prevention activities including cost-effective healthcare policies and individual actions to reduce exposure to major risk factors such as high blood pressure, high cholesterol, obesity, and smoking.

Despite a 50% decline in deaths from ischemic heart disease and stroke during the past 40 years, cardiovascular disease (CVD) remains the leading cause of death in the United States (as well as most other developed nations).

4. What are the key risk factors for CVD?

Answer: The stages in the epidemiologic transition of cardiovascular diseases have occurred in response to shifts in risk factor profiles for specific cardiovascular conditions. The classical risk factors for CVD include tobacco addiction, hyperlipidemia (*high* low density lipoprotein cholesterol and *low* high density lipoprotein cholesterol, diabetes type 2 with hyperglycemia (increased blood glucose), hypertension, and inflammatory conditions of the heart and blood vessels. The inflammatory biomarker, C Reactive Protein (CRP) has also been proven to be of value in predicting the development of CVD.

There is also convincing epidemiologic evidence that CVD risk is increased by consuming a diet high in saturated fats, being markedly overweight or obese, and maintaining a sedentary lifestyle with little physical activity. These risk factors tend to cluster in populations thereby synergistically elevating the risk to much higher levels. The time lag effect of risk factors for CVD means that the full effect of past exposure to behavioral risk factors, especially among children, will only be seen in the future. Unless preventive and management efforts are embraced worldwide, the global burden of CVD death and disease will continue to rise.

5. Why has congestive heart failure increased in the USA since 1970?

Answer: One form of CVD that has markedly *increased* rather than decreased in the USA and other developed nations during the past 40 years is congestive heart failure. This condition occurs when the heart pumps insufficient blood to meet the metabolic demands of the body. The normal adult range for the ejection fraction is 50-70% and congestive heart failure is indicated when the ejection fraction falls below 50%.

Many interactive factors are responsible for the epidemic of congestive heart failure in the United States and other developed nations. Congestive heart failure represents the end stage of a web of pathogenic events of CVD including ischemic/coronary heart disease, atherosclerosis, hypertension, type 2 diabetes and inflammation. More than 81 million Americans are living with two or more forms of CVD and as more and more patients survive CVD and live longer, their risk of developing congestive heart failure increases. Furthermore, the prevalence of obesity has increased in parallel with the rising rates of congestive heart failure.

6. Why are rates of CVD higher in men than women and higher in African Americans than Caucasian Americans?

Answer: Striking gender and ethnic differences are present in the rates of CVD and its spectrum of component conditions. Men are at approximately 40% higher risk of dying from any form of CVD than women and African Americans have 38% higher CVD mortality than Caucasian Americans. These population disparities reflect not only differences in exposure to the risk factors but also inadequacies of the health care system for the early detection and efficacious treatment of CVD in subpopulations of Americans.

7. What population-based strategies would you propose for the primary prevention of CVD?

Answer: Primary prevention is the avoidance of known CVD risk factors. For example, individuals who never initiate the smoking habit markedly reduce their risk. Other lifestyle changes that have proven beneficial to cardiovascular health include cessation of tobacco use, aerobic exercising for at least thirty minutes daily, maintaining optimal body weight and consuming a diet low in sodium, carbohydrates, saturated and total fats that is more weighted towards unsaturated fats, fruits, vegetables, whole grains, and omega-3 fatty acids.

Until recently, cardiovascular disease has been largely absent from the international consciousness, overshadowed by public health concerns about HIV/AIDS and other infectious diseases. International, national and community programs are needed to ensure that these interventions reach the individuals most at risk. The World Health Organization has called for a global partnership of nationwide public health campaigns and high-risk intervention strategies.

8. Discuss the tertiary prevention of CVD.

Answer: Individuals who have already experienced a cardiovascular event such as a heart attack or stroke are at high risk of suffering recurrence or death. The risk of recurrent disease can be reduced by both non-pharmaceutical lifestyle modifications such as regular aerobic exercising and dietary changes as well as pharmaceutical and medical intervention.