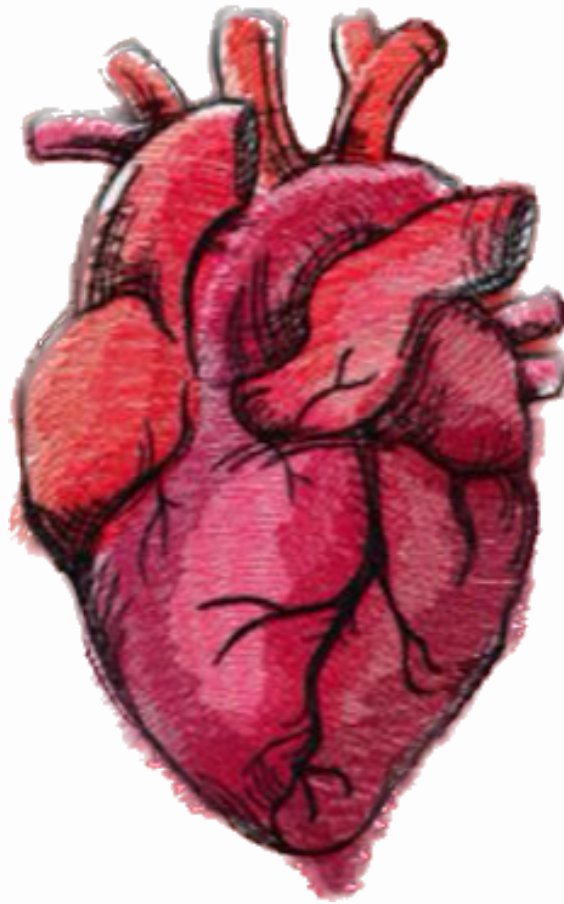




CARDIOVASCULAR SYSTEM



SUBJECT : Community medicine

LEC NO. : One

DONE BY : Anas zakarneh

وَقُلْ رَبِّ زِدْنِي عِلْمًا

Epidemiology of Cardiovascular Diseases.

Dr. Lara M. Al-Natour

The Hashemeite University.

Faculty of Medicine

Dep. Of Pharmacology and Public health

laram@hu.edu.jo

Office number: 1012

Outlines

عنا بعض الأرقام و النسب مهم انو نحفظهم و
طبعا الدكتوراه حددتهم
اللي عليه highlight يكون كثييير مهم كالعاده

- What are the cardiovascular disorders
- Public health importance
- Tasks of CVD epidemiology
- Descriptive Epidemiology
- Analytic epidemiology
- CVD Risk Factors
- Prevention and Control of CVD

Major CVD

- Cardiovascular Disease (CVD) refers to the class of diseases that involve :
- Coronary artery disease/ Ischaemic heart disease
- Cerebrovascular disease/ Stroke
- Hypertensive HD
- Congenital HD
- Cardiomyopathies.
- Peripheral arterial disease
- Heart failure
- Rheumatic HD

Public health importance

We focus on the prevention and protection and improvement not the treatment

That's the goal of community medicine or public health

- Public health significance:

- CVD is a leading cause of mortality in developed countries and rising significantly in developing countries

CVD is a major problem in both developed and developing countries

مع انو معدل الإصابات بنخفض بال

countries بس لسا تعتبر مشكلة كبيرة عندهم :

- CVD is a leading cause of mortality in developed countries

Expected year of living at certain age

- A major impact on life expectancy

- Contributes significantly to the mortality and morbidity rates among people in middle age. 30–44

الفئة العمرية التي بتكون اكثر عرضة للإصابة بـ CVD

بتزيد من mortality and morbidity

لهي الفئة العمرية

- Contribute to deterioration of quality of life

Concept Describe someone

Or population state of health

Mortality rates: number of deaths among a certain population

Morbidity: the state of being unhealthy

هدول محلاكم. انتو مش عارفينهم 🐱🐶🐹

Tasks of CVD epidemiology

بتوقع قديه هيمنتشر ال CVD خلال اكم من سنة جايين

- Detection of the prevalence and distribution of CVD in populations, as well as its surveillance, monitoring, and change-trend analysis
- Study the natural history of CVD
- Formulation and evaluation of etiological hypotheses (risk factors) Cause of disease
- Participation in the development of programs to prevent CVD and evaluation of these programs

Parts of CVD epidemiology

- Descriptive : in terms of Person (age, gender, ethnicity), Time, Place
- Analytical: analyze the relationships with CVD risk factors
- Experimental/Intervention: strategies of CVD prevention (1ry, 2ry, 3ry) individual/community Same as screening programs

Descriptive Epidemiology **VIP**

Worldwide

World Health Organization Statistics

- In both developed and developing countries CVD is the major health problem.
- In developed countries, CVD kills 50% of the population.
- Every two minutes, a heart attack occurs (British Heart Foundation).

الأرقام هون مهمة جدا جدا جدا

اقروه

- According to estimates, 17.5 million deaths worldwide from cardiovascular disease occurred in 2005, which represents 30% of the total deaths.
- 7.6 million of these deaths were caused by heart attacks, and 5.7 million by strokes.
- Around 80% of these deaths occurred in low- and middle-income countries.

Middle age people

أكثر فئة معرضة (للإصابة) بأمراض القلب و الأوعية الدموية

و لكن التغيرات (atherosclerotic changes)

تبدأ تظهر على العشرينات

Related to descriptive epidemiology

□ Age

At age 20, atherosclerotic changes start to appear.

Lifestyle changes (such as smoking, diet) occur in childhood and youth.

CVD mortality and morbidity increase at age group 30-44 years.

Premature death (25-64 years); men:women, 32.7% vs. 31.3%

هسا ال elderly people لازم يكون تقريبا اكبر من 64 سنة

فأي موت قبل 65 سنة بنعتبره premature death

هون ركز على الأرقام.... غير هيك ركز فوق كتبت إصابة مش اشني ثاني

هاض السلايد و اللي تحته مهمات جدا جدا

1: men in
general

□ Sex

The highest incidence rate is
Among middle aged men
But the group that are at high
Risk for CVD (1–5) الأرقام من

• Common belief: ² middle-aged men's disease.

• The risk of fatal CVD is higher in men.

3

Elderly people become equal

• CVD affects nearly as many women as men, especially in older age.

• ⁴ Women who smoke and have high blood triglycerides are more likely to develop CVD.

5

• Risk factors that are specific to women (contraception, replacement therapy, polycystic ovary syndrome).

□ World trend

- Developed countries: a trend toward decline (US by 30% between 1988 and 1998, Sweden by 42%)

➤ Enhanced lifestyle considerations

➤ Better methods for diagnosis and treatment.

أسباب انخفاض معدل الإصابة
developed عند
countries

- Developing countries: increasing trend

➤ Increasing longevity, urbanization.

Means long life expectancy

Due to

هنا حكيما فوق

انوا الناس اللي كبار بالعمر
at high risk for CVD
فمعناتو بالمنطق كلما زادت ال
life expectancy
بزيد عدد كبار السن بالتالي معدل الإصابة راح يزيد

Analytic Epidemiology

- Around 300 risk factors



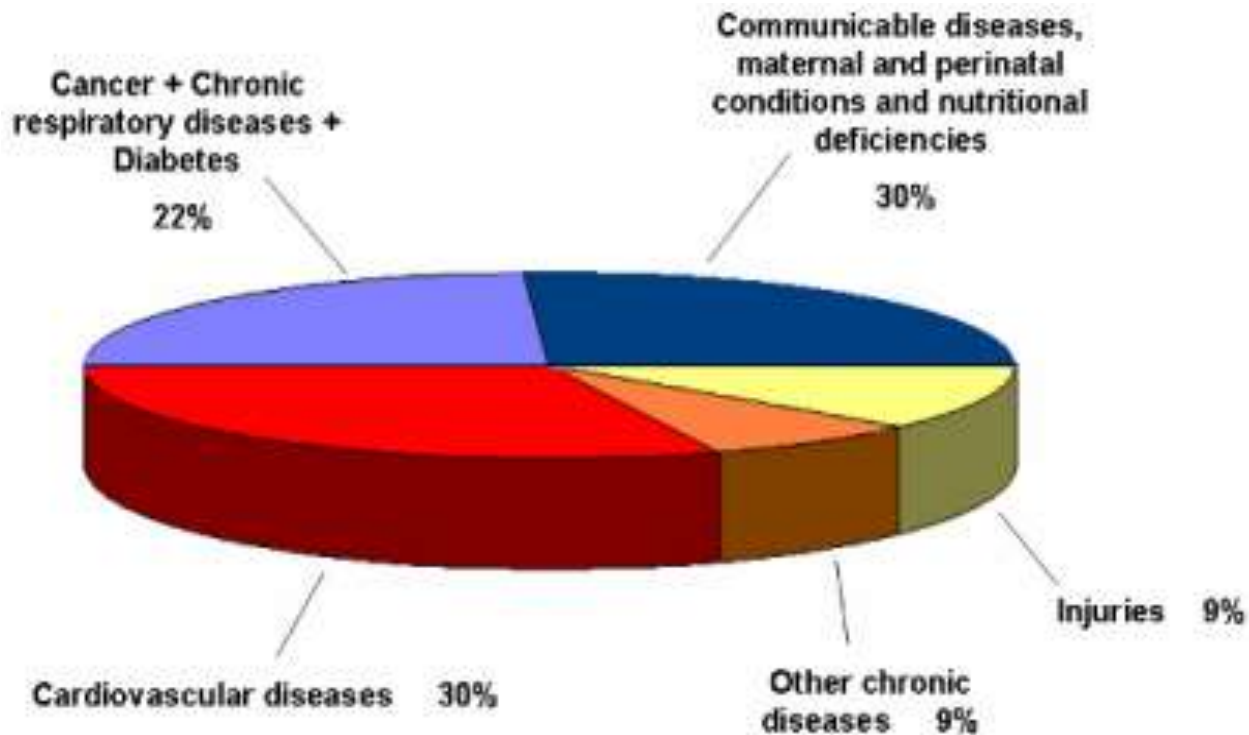
- Conventional risk factors are responsible for 75% of CVD.

مهمة النسبة

CVD



Cancer
Diabetes
Chronic respiratory disease



قراءة و الأرقام مش مهمة و مش مطلوبة للحفظ

- US Cardiovascular Disease Statistics
- According to estimates, 80,000,000 Americans (about 40%) have one or more types of cardiovascular disease (CVD) in 2006.
 - ✓ High blood pressure — 73,600,000.
 - ✓ Coronary heart disease — 16,800,000.
 - ✓ Myocardial infarction (acute heart attack) — 7,900,000.
 - ✓ Stroke — 6,500,000.
 - ✓ Heart Failure — 5,700,000

بس ملاحظة بسيطة هاي الدراسة محلية
اللي بالسلايد اللي فوق عالمية
+ ارقام الدراسات غير مهمة

- Jordan Cardiovascular Disease Statistics
- According to Jordan's 2019 National STEP-wise Survey for Non-communicable Diseases Risk Factors, adults aged 45 to 69 had a considerable prevalence of 52%, 20% and 25% of hypertension, diabetes and CVD risk, respectively.
- Moreover, those currently suffering from cardiovascular diseases or at high risk of developing cardiovascular diseases in the next 10 years reach 24.5% of the survey population.

References

- www.who.net/cardiovascular/en/
- www.americanheart.org/presenter.jhtml?identifier=4478
- Alan Razanski et.al.: Impact of psychological factors on the pathogenesis of cardiovascular disease and implications for therapy.
www.circulationaha.org
- Social Support, Type A Behavior, and Coronary Artery Disease
- JAMES A. BLUMENTHAL, MATTHEW M. BURG, JOHN BAREFOOT, et.al. Psychosomatic Medicine 49:331-340 (1987)
- Jordan National STEPwise Survey (STEPS) of noncommunicable diseases and their risk factors 2019

Thank you 😊