



Lec no : 5

File Title : Determent of health

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Health Policy

Subject 3

The determinants of health

العوامل التي تؤثر على الصحة

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Determinants of Health

Learning Intention:
Develop a greater understanding of the determinants of health - factors which influence our health.

Objectives

Discuss the factors which affect in our health

After completing this subject, students will be able to:

1. Discuss **how to assess the health status of populations** using **available data** (e.g., public health surveillance data, vital statistics, registries, surveys, electronic health records)
2. Describe the **distribution of morbidity and mortality** by age, gender, race, socioeconomic status, and geography .
3. Discuss the **role of socioeconomic, environmental, cultural**, and other population-level determinants of health on the **health status and health care** of individuals and populations.
4. Identify the **leading causes of death**, leading underlying causes of death, and **health disparities**

*Determinants of Health

Conditions in the social, physical and economic environment in which people are born, live, work and age, including the access to the health care.

محددات الصحة هي عبارة عن البيئة الاجتماعية والاقتصادية و
الجسدية التي نولد بها ونعيش فيها وتشمل الوصول إلى خدمات
الرعاية الصحية

* Importance of Health Determinants

The determinants of health are factors that make people **healthy or not**, it **include**:

1. Biological and genetic factors العوامل الجينية وذلك لمعرفة الأمراض المزمنة المحتملة
ذكور أو إناث
2. the **social and economic factors**, العوامل الاقتصادية تؤثر على الصحة مثل التوظيف يعني الموظفين هم أكثر قدرة على
3. the **physical environment**, and البيئة سواء داخل المنزل أو خارجها
4. **person's individual characteristics and behaviors.** سلوك الإنسان ويكون صحي. أو غير صحي وبناء على هذا يكون محدد للصحة

Current attempts at health reorganization will **not be successful at improving health unless the population health determinants are addressed.** محاولات تحسين الصحة لن تكون ناجحة إذا ما قدرت أعرف أسباب الأمراض ومحددة الصحة لانه بناء عليها بدي أحط

حلول

*Leading Causes of Death

وهذه الأسباب تكون لمنع الوفاء و معالجة المرض

نحن أطباء لازم نعرف أسباب الوفاة ولازم نعرف متى حدثت الوفاة
ولازم نحدث المعلومات لانه من فترة إلى فترة هذه الأسباب تتغير

- ❖ 1 There is a marked variation in pattern, in the early part of the **20th century**, the leading causes of death were **infectious disease, primarily tuberculosis**.
مرض السل يؤدي إلى mortality and morbidity
كان قديما السبب الرئيسي للوفاء هو ال cease عدوى مثل مرض السل وذلك بسبب شح في خدمات الرعاية الصحية مثل التطعيم
- ❖ 2 But the leading causes of death are changed to chronic disease because of the **health transition**.
ولكن في هذه الأيام وبسبب التحول الصحي سبب الوفاة الرئيسي هو الأمراض المزمنة
- ❖ 3 Although **emerging infectious diseases** such as **HIV** and the possibility of **pandemic flu** are important.
زي ما اخذنا التحول الصحي يكون بسبب زيادة العمر المتوقع وتطور التكنولوجيا وانماط حياة الإنسان
أنفلونزا الطيور او العدوى أو كورونا ياللي عملت عندي تغير بالاقتصاد وغيرها من العوامل التي تتحول
- ❖ 4 But it does show that the pattern is **now chronic disease** which are determined by **health behavior , social determinants and environmental determinants**.
ولكن تبين أن الأمراض المزمنة تكون بسبب سلوكه صحية ومحددات اجتماعية وبيئة مثل التلوث الأشعة
انماط الحياة غير صحية الأكل



Global leading causes of death worldwide 2023

'هنا تبين أن أمراض الوفاة لعام 23 سببها الرئيسي أمراض القلب

لأن الأمهات عاملات ممكن يكون سوا نظافة من الحضانات واكثر شي في الأطفال

Updated on April 19, 2023

1. ischemic heart disease,
2. Stroke : سكتة دماغية
3. Lower respiratory infections
4. Chronic obstructive pulmonary disease
5. Cancers السرطانة
6. Diabetes السكري
7. Alzheimer's disease
8. Road Traffic Accidents
9. Diarrhea
10. Tuberculosis السل الرئوي
11. Cirrhosis تليف الكبد والرتة

الأمراض القاتلة

التهابات الجهاز التنفسي السفلية

الإصابة الرئوي المتكررة

السكري

قلة الوفيات الناتجة عن الحوادث بسبب التعليم وتثقيف وضع إجراءات صارمة من قبل الدولة

Why do we need to know the reasons people die?

Measuring **how many people die** each year and **why** they died is one of the most important means – along with measuring **how diseases and injuries are affecting people** – for:

لازم أعرف عدد الوفيات ومن أي فئة عمرية و أسباب الوفاة وذلك من أجل عمل البرامج لتطوير نظام الرعاية الصحية

➤ assessing the effectiveness of a country's health system.

عبارة عن مؤشر لصحة الدولة فكلما كان عدد الوفيات عالية كانت الخدمات الصحية سيئة

➤ help health authorities to determine the **focus of their public health actions.**

معرفة أسباب الوفاة يساعد صانعي القرار في الوزارة الصحية على التركيز على

صحة الناس وتطوير بعض الجوانب

➤ Provide **program to encourage healthy lifestyle** to help in prevention of **non-communicable health problems.**

توفير برامج لتسجيل نمط الحياة الصحي وذلك للوقاية من الأمراض المزمنة وتحسين الحياة للأفراد ويكون هذا بناء على المعلومات التي خدناها

من المسح الشامل

➤ **provision of effective treatment.**

توفير علاج فعال

➤ **for improving health and reducing preventable deaths in these countries.**

تحسين الصحة ومنع الوفيات أو التقليل منها



1. BIOLOGICAL DETERMINANTS المحددات البيولوجية

- The **physical & mental status** of every human being are **determined** by the **nature of his genes** at the time of conception. الحالة الصحية والعقلية للإنسان تحدد منذ الحمل عند الإخصاب

- The **genetic makeup** is unique in the sense it cannot be altered after conception. التركيب الجيني للإنسان فريد من نوعه ولا يمكن تغييره بعد الولادة

- Several diseases are now known to be of **genetic origin**, E.g., Chromosomal anomalies (Down syndrome, Cystic fibrosis ,errors of metabolism, and hemophilia).

العديد من الأمراض الحالية أسبابها جينية مثل متلازمة داون التليف الكيسي سواء الرئة أو الكبد وأخطاء في التمثيل الغذائي وأمراض الدم

- **Medical genetics** offers hope for **prevention & treatment** of a wide spectrum of diseases to promote longer & healthier life. علم الجينات تطور واصبح علم واسع من أجل منع أو معالجة الأمراض وذلك لتعزيز الصحة

العوامل الجينية وهي العوامل التي تكونت بسبب الوراثة ولا يمكن معالجتها ولكن يمكن الحد من أعراضها

✳ Genetic factors :

Genetic factors may affect specific populations more than others.

تؤثر العوامل الجينية في سكان أكثر من غيرهم

✳ Sickle cell disease is a common example of a genetic determinant of health.

مثلا مرض الانيميا المنجليه إحدى أهم الأمراض الجينية الوراثية

✳ The gene is most common in people from West African countries, Mediterranean countries, South or Central American countries, Caribbean islands, India, and Eastern Mediterranean Regions.

مثلا توجد الأمراض الوراثية في دول غرب أفريقيا ودول البحر الأبيض وأمريكا الجنوبية والوسطى وجزر الكاريبي والهند

✳ It is permanent & can not be altered.

ما هو مرض دائم ولا يمكن تغييره

✳ Transmitted by hereditarily.

ينتقل بالوراثة

✳ No treatment for complete cure.

لا يوجد له علاج تام

✳ Some , may be prevented to some extent.

ولكن يمكن التقليل من أعراضها وتحسين الصحة

Other example: heart diseases, hypertension, diabetes, , etc.....

هناك أمراض وراثية أخرى مثل أمراض القلب والضغط والسكري

*Gender and Health

تختلف الأمراض الوراثية بين الذكور والإناث بسبب بيولوجي الجسم

1 ➤ Women historically, culturally subordinated,

تعد المرأة مهمشة في بعض الدول وذلك من أجل ثقافات معينة

2 ➤ Women work double shift of work/domestic labor.

ويكون لديها أعمال مضاعفة سواء بالوظيفة أو أعمال المنزل

3 ➤ Women's bodies/health determined far more by reproductive cycle and childbirth.

و يتم تحديد صحة جسد المرأة بشكل اكبر خلال الدورة الانجابيه والولادة

4 ➤ Higher morbidity but longer life span & life expectancy.

فئة النساء معرضه للأمراض اكثر ولكنها لديها عمر فعلي على ومتوسط عمر أعلى

5 ➤ Health service utilization rate is higher among women than men.

معدل الاستفادة من خدمات الرعاية الصحية تكون أعلى للنساء

6 ➤ Less likely to be involved in risky behavior or occupation.

النساء تعمل في مجال الخطورة أقل من الرجل يعني مثلا الكهرباء أماكن العمل الحارة وغيرها

➤ Violence (Woman Abuse). العنف مع المرأة في بعض البلدان

*Age ~

➤ According to the **demographic transition** and **improvement in the socioeconomic conditions** and **reduction in the occurrence of infectious (communicable) diseases**, and **improvement in the health care service**, all these factors lead to prolonging life of people with results of **increasing life and life expectancy**.

التحول الديموغرافي أدى إلى تطوير الوضع الاقتصادي و تقليل ال التهابات وتطوير خدمات الرعاية الصحية مما أدى إلى زيادة متوسط العمر المتوقع بالمقابل زاد العبء لانه زيادة فئة كبار السن

➤ **Increase in the number of elderly (2020 1 billion).**

زيادة كبار السن بسبب health, transition

➤ **Increase in the prevalence of chronic diseases (non – communicable diseases) and disabilities.**

الأمراض المزمنة ازدادت بسبب التحول الصحي مما أدى إلى عبي اقتصاديا وزيادة الانفاق على كبار السن

المطاعيم بتكون في المراحل الأولى من حياة الطفل لانه بتكون منعتة ضعيفة وهو بحاجة إلى تقوية

Age:

Age can affect **health** by several reasons:

يؤثر العمر على الصحة في عدة أسباب منها

1. Children at higher risk for infections , accidents or nutritional deficiency. فئة الأطفال أكثر عرضة للالتهابات بسبب ضعف المناعة ولذلك لازم يتوفر التطعيم لهم وتحفيز رضاعة طبيعية
2. Older people **have many chronic health problems (co- morbidity), i.e.;** diabetes, hypertension, arthritis, vision and hearing problems etc..... فئات كبار السن ممكن أن يواجه الشخص الواحد عنده أمراض مثل ضغط السكري التهاب مفاصل مشاكل الرؤية والسمع
3. Older people have **multiple medications.** يحتاجون إلى وصف اكثر من دواء لمعالجة امراضهم المتعددة
4. Also, Older people have **problems to access health care services .** فئة كبار السن في بعض الدول يعيش لحالهم مما يؤدي إلى صعوبة الحصول على خدمات الرعاية الصحية

SOCIO ECONOMIC CONDITIONS

The health of a person is primarily **dependent upon the level of socioeconomic development:**

الوضع الاقتصادي والاجتماعي
اهم مؤشر لصحة الفرد ويعتمد
على عدة أشياء منها

- Per Capita income,
- education,
- nutrition,
- Employment and
- Housing.

ECONOMIC STATUS:

The per capita is the most widely accepted **measure of general economic performance.**

The economic progress of many countries has been a major factor in:

- **reducing the morbidity,**
- **and mortality,**
- **increase in life expectancy**
- **improving the quality of life,** family size, &
- the pattern of disease & type of behavior in the community.

Socioeconomic condition

■ Different level of health of individuals also exist between different socioeconomic groups,

■ lower- socioeconomic groups generally having :

أيضا إذا كانت
أفراد المجتمع منخفضة بقدرتي الو - 5

1. **Poorer health** and **higher rates** of **chronic illness** including malnutrition, obesity, diabetes, accidents, disability, and hypertension.
2. Receive **less primary health care services**.
3. **Poor quality houses**.
4. **Less provision** of advanced treatment procedures or interventions **relative to** needs.

Education

- ❖ low education levels are linked with poor health, more stress and lower self-confidence.
- International evidence shows that those with higher levels of education:
 - live longer, Longer life expectancy.
 - lower morbidity from the most common acute and chronic diseases (have better health),
 - healthier lifestyles, aware about healthy behaviour.
 - Awareness to disease causation and prevention.
 - Have excess and use of health care services (preventive , curative or rehabilitation)

Employment and working conditions:

- Safe working environment .
- Some occupation **impose risk**, causing diseases, i.e. doctors and nurses are at risk of infection and stress.
- **Hearing problems** ,as among workers in occupations with high noise, i.e. airports.
- **lung cancer** among individuals work at **asbestos industry**.
- **Accidents** among constrictive work.
- **Unemployed** individuals are at higher risk of different types of health problems because of lack of income.

Poverty and Health: Mechanisms

Poverty can affect health in several ways:

✚ **income** provides the **basics for health**, such as shelter, food, warmth, and the ability to participate in society.

✚ **living in poverty** can cause **stress and anxiety** which can **damage people's health**.

✚ **low-income** **limits peoples' choices** and acts against desirable changes in behaviour.

✚ **higher income and social status** are **linked to better health**.

✚ The greater the gap between the richest and poorest people, the **greater the differences in health**.

Income inequality is associated with the following outcomes in low-income people:

- Low birth weight (<2.5 Kg)
- Homicide
- Unemployment
- No health insurance
- lower rates of use of preventive (vaccination) , diagnostic and curative health services.
- more likely to die prematurely.
- shorter life expectancy
- Decrease number of high school graduation.
- low-quality schools
- little recreation
- high crime rates

Urbanization

The rapid and massive growth of, and migration to, large cities.

Positive and negative consequences can result.

✚ Residents of constantly expanding, **unplanned housing** areas, with **poor access to health and social services** and **poor living conditions** are likely to suffer disproportionately from poor health due to:

- poor housing condition
- Overcrowding
- unemployment
- Malnutrition
- delinquency & suicide → death
- Social stress

BEHAVIOURAL & SOCIOCULTURAL CONDITIONS

Lifestyle denotes “ the way that people live”, reflecting a whole range of social values, attitudes & activities.

- It is composed of **cultural & behavioral** patterns & life long personal **habits** that have developed through the process of socialization.

- ❖ Life- styles are learnt through:

- social interaction with parents
- peer groups,
- friends, siblings &
- through school & mass media.

- ❖ Many current health problems such as coronary heart disease, obesity, lung cancer, drug addiction are associated with life - style.

**LIFE
STYLE
ISSUES**



Risky (unhealthy) Behavior

‘Risky behaviors are those that potentially expose people to harm, or significant risk of harm which affect their health negatively (diseases) .

- Smoking
- Alcohol misuse
- Drug misuse
- Unhealthy diet (low vegetable and fruits, high fat,
- Low level of physical activity
- General hygiene (Hand washing)



Individual behavior:

Also plays a role in health outcomes.

❖ Risk of illness & death relate to:

- lack of sanitation,
- poor nutrition,
- personal hygiene,
- human habits,
- customs & cultural patterns.

□ Many public health and health care **interventions focus on changing individual behaviors** such as substance abuse, diet, smoking and physical activity.

□ **Positive changes in individual behavior** can reduce the rates of chronic disease.



Environmental conditions

❖ Internal environment

- **Indoor** house environment (**hygiene**, water supply, **overcrowding**, lack of ventilation, **smoking**, low quality & lack of safety).....

❖ External **outdoor** environment

- **Physical**: air and water pollution , soil , radiation and noise.
- **Biological**: plants, animals, microbes
- **Social**-culture, beliefs ,traditions.

In Jordan environmental conditions is **water scarcity**, for agriculture and domestic use etc.

Physical environment



Physical environment contribute to good health:

- safe water and clean air
- healthy workplaces,
- safe houses,
- proper sewage disposal and waste disposal
- safe communities and roads.



Physical environment contribute to bad health:

- Radiation
- Noise, Electrical hazards
- air or water pollution , chemical or Dust
- Heat or cold
- overcrowding, accidents



Family:

- ❑ Is the **primary social context** in which health issues are addressed.
- ❑ **Marital and family relations** have powerful impacts on health outcomes
- ❑ Family members not health professionals , **provide most of health care to patients.**
- ❑ family is primarily the **source of health beliefs and behaviors.**
- ❑ Family is an important **source of stress and social support.**

Health Care services

Health care services regarded as one of the most important determinant of health,

- ❑ The quality
- ❑ Equity in health programs
- ❑ Efficiency
- ❑ Cost –effectiveness
- ❑ Geographical and organizational factors.
- ❑ Consumer satisfaction

❑ **Accessibility:** preventive , promotive, and curative.

❑ Availability

❑ Cost , affordable

❑ Health insurance

❑ Communication and knowledge.

Social support networks and Cultural factors

- **Social support networks** – greater support from families, friends and communities is linked to better health.
- **Culture** – Religion, customs and traditions, and the beliefs of the family and community all affect health.

Chronic Stress and Health

Chronic stress, plays a significant role in the increase of morbidity and mortality rates in the lower Socioeconomic groups of the population.

Stress contributes to many health problems, :

- high blood pressure and heart disease, obesity diabetes.
- Stomach upset, Sleep problems, Overeating or under- eating
- Sadness or depression, Drug or alcohol abuse, Tobacco use

There are also differences in coping with stress.



Why Determinants of Health ?

1. Direct impact on health.
2. Interact with each other to produce health or disease.
3. Affects the structure or development of behaviors.
4. Predict greatest proportion of health status variation.
5. Health promotion is concerned with action and support to change the modifiable determinants of health.
6. They are the cause of the problems so it gives us what strategies should be used in Health Policy to promote health or prevention of diseases.

