



# HEALTH ECONOMICS

Title : Introduction

Lecture no : One "1"

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وَقُلْ يَا رَبِّ زِدْنِي عِلْمًا



# Health Economics

لا تنسوا أئمتنا في فلسطين من صالح دعائكم.

وَمَا تَوْفِيقِي إِلَّا بِاللَّهِ

future  
doctor



# Introduction to



Dr. Omnia Elmahdy

## Outlines

- ❖ What is economics?
- ❖ What is “Health”?
- ❖ What is “Health Economics”?
- ❖ Why Health Economics?????



# Health Care Economics

## اقتصاديات الرعاية الصحية

Health provider  
E.g.: Doctors

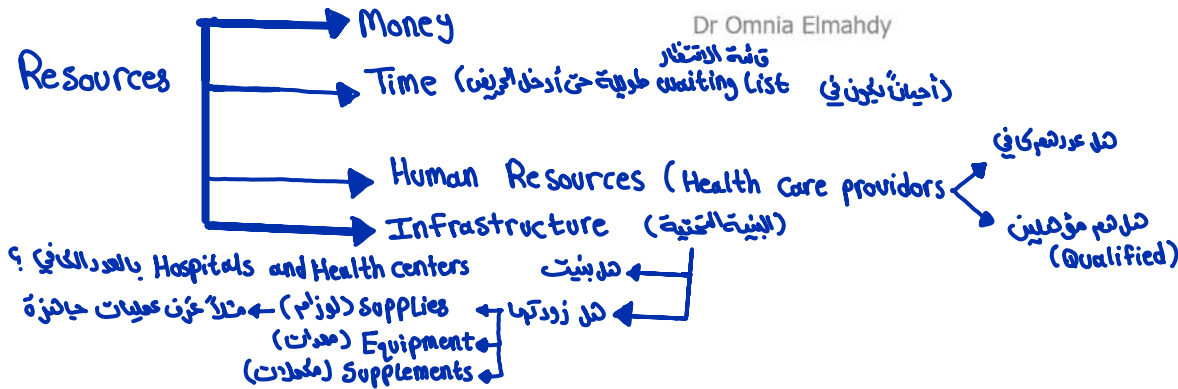
← Population ← من مستخدم

Resources التي عندك من توصل للفائدة الأكبر (Maximum Benefit) ما معنى ذلك: كيف تستخدم كل الموارد

↳ We have many needs but resources is limited  $\rightarrow$  إما كان المكان في رغبة  $\rightarrow$  إما كان المكان في رغبة

Need  $\uparrow$  Resources  $\downarrow$  "limited resources but Unlimited/Infinite need"

↳ So I want to choose the best way according to the budget that I have



## Introduction and Purpose

This course:

- Describes the **scope of health economics** and its key information resources.
- Explain some **important terms** used in health and **health economics** .
- Highlights the **sources and characteristics of health, disease, factors affecting health and health care financing** .
- Highlights the **types and sources of health care**.
- Answer the question: why it is important to study health economics .
- Explain methods of **payments to health care and health care providers**.
- Outlines issues relating to the quality of **health economic evaluation** methods.

Dr Omnia Elmahdy

### Economics :

## Economics is about

- Limited **resources**
- Unlimited **“wants”**
- **Choosing** between which **‘wants’** we can **‘afford’** given our resource **‘budget’**



## Economics is about choice

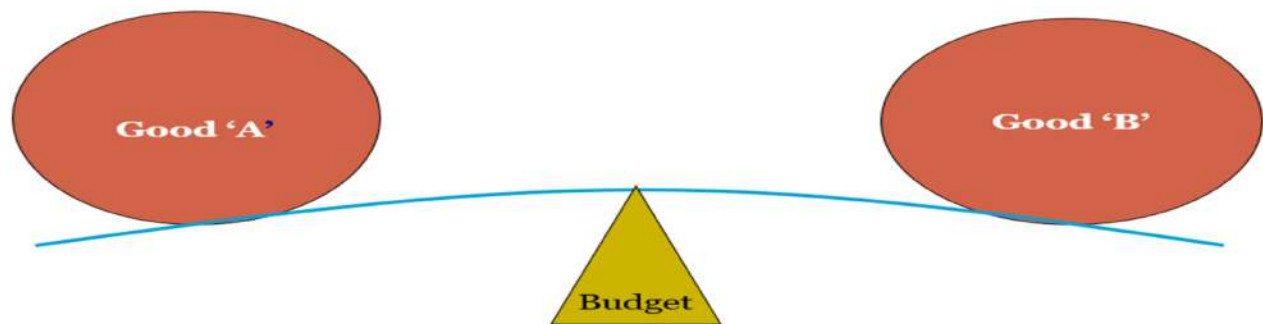


## Economics is about

- Limited resources
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## Economics is about choice



## Economics is about ...

### Resources

The basic inputs to production –

- **Time.**
- **Money**
- **Human resources** ( health care providers).  
Like: Doctors ↑
- **Equipments:** gloves, Syringes, masks, laboratory materials and instruments, x-ray, ECG, etc....
- **Infrastructure,** buildings
- **Transport** وسائل التواصل

The discipline of **economics** is founded on the premise that **there will never be enough resources to completely satisfy human desires**, referred to by economists as **scarcity**. ندرة.



• Scarcity: الندرة الطبيعية (لا يوجد أي مورد ليس له حد، كل منفعة تعتبر limited)

There will not be enough resources to satisfy human need so I have to choose

يقوم هذا المصطلح كدفعوع Economics

Defenition :

Economics is the study of how society manages its scarce resources

تقدير

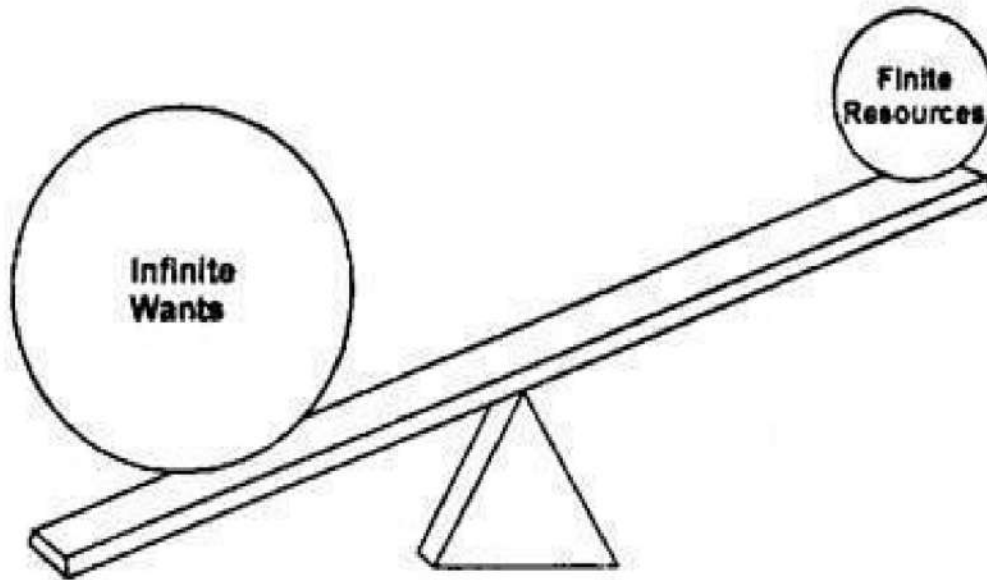


Fig. 1.1: The economic problem: finite resources and infinite wants

As individuals we are constantly making choices as to how we allocate our time, into which activities we channel our energies and on what we spend our available funds. In other words, we are **making choices**  $\rightarrow$  According to the <sup>ميزانية</sup> budget

Which one will you choose ?!!!!!!!!!!!!!!





These **sacrifices** التضحيات are referred to as **opportunity cost**. تكلفة الفرصة

Their very existence provides a rationale for <sup>الهدف</sup> economists to take an interest in all resources that are used, whether by individuals, governments, the health service or society, regardless of whether or not money is paid for them, in order to achieve the maximum benefit for society.

● Opportunity cost = Sacrifices

التضحيات التي يستقدها لكي يحصل على خدمة معينة، مثل أن يبيع الأمور حتى أجدالك من أكثر

المنفعة : The benefit to the society

● Question : Suppose that you have a certain health program and you have another health program and you as a manager want to choose which one is first :

We will choose the health program which is for poor people and other program will be later on.

## Scarcity الندرة

- Scarcity means that all resources are limited
- Our world is finite, so everything is scarce by criterion
- There is NO known resource that is not limited
- Land, labour, water, capital, hospital beds, ..... all are limited

- If the goods that go into the production process (raw material, labour, land) are called **inputs**, and the goods that come out of the production process are called **outputs**

يطلقون على outputs في المصنوعات ← عملية الإنتاج  
 تكون كل نظرات عليها production process  
 "تقديم الخدمة الصحية" Health care delivery

The economy's  
resources are all  
**INPUTS and  
OUTPUTS**

Inputs :

(Resources / كل شيء وسوف تستخدمه)

بنييت مستشفى (وغيره أدوات طبية وميزانية وأطباء وممرضات ومعدات)

Outputs :

Services "system services" "Health care delivery" من الخدمات

الناس راضين

بقدر أنهم

↓ العائد

مثلاً: سجلت عملية عند التخزين ولا حطت بعد فترة إنه عدد المدفوعين قل

Customer patient To make patient satisfaction and patient safety

- Scarcity of goods in an economy can be traced back to a scarcity of means for producing them

- E.g; scarcity of health services would be no problem if building hospitals, health personnel, were all free goods

• Scarcity من صحة Health services Free مستحيل تعدد توفر كل الخدمات العمية وتقديمها للناس بشكل متساوي وتوفرها

→ If the services is free for all population Private and governmently center كان ما في

Cost and Sacrifices له في زيادة كثير لها

- **Scarcity** is not the same as a **shortage** **النقص**

**Shortage means that the amount supplied is less than the amount demanded**

<p><b>Scarcity</b></p> <p>[All resources are limited] <b>هو النقص الطبيعي</b></p>	<p><b>Shortage</b></p> <p>[Human made] → <b>تقيس بشري</b></p> <p>مثلاً لم أوفر Medical Supplies                      لم أوفر مستلزمات كافية                      في عدد جيد من الأطباء                      لكن الرواتب قليلة فيضطروا                      للتغيب للأزواج</p>
<p>Continuous</p>	<p>Temporary <b>مؤقت</b></p>

دور الحكومات ← تمنع Shortage  
 ← تقلل scarcity ← By best use of available resources

من الطبيعي يكون عندك نقص في بعض الموارد ولكن هذا أنت جالس بالبيت ولا تتقبل فدعوه النقص بسببك أنت....

**SCARCITY**  
 of a resource implies natural limitation in the availability of a resource, whereas  
**SHORTAGE**  
 means temporary and man-made unavailability.



لو أنت بمستشفى ← واستخدمت Fund بتع المستنفي حتى تزيينه  
 وأنت أصلاً معدتك ← Medical Supplies فتأخير Shortage

• So Important •

المهم  
Economics is concerned with...

التكاليف  
-Costs (resource use)

اختيارات  
-Choice

Important  
-Effectiveness.

الفوائد  
-Benefits

Important  
-Efficiency.

نتجته ← في  
Economics

كفاءة Efficiency	Finally ---- Effectiveness
Means optimal use & application of available resources.	Means to what extent the defined objectives are achieved.

• **Efficiency** : Optimal/Best use of available resources

الموارد المتوفرة واستخدامها بأفضل طريقة ممكنة لتحقيق الأهداف.

• **Effectiveness** : Objectives  
تعمل Objectives بكفاءة ومدة لها بالتحديد

يعمل Evaluation (تقييم) للنتيجة وبموجب تحقيقها، كما من أهداف البرنامج

• **Example** : (Health program) وفرت (مطاعم من نوع جيد / Doctors / مهارات لنقل المعايير)

المعيارية لتوفير الأتياد حتى توصله كجزء من الناس، كـ "Efficiency"

المعيارية كالمعيارية من طلبية المدارس (وصلت له Goal وكفاءة) "Effectiveness"

The simplest idea about efficiency is often referred to as efficiency savings, where **output is expected to be maintained, while at the same time making cost reductions,** or where **additional output is generated with the same level of inputs.**

\*<sup>1</sup> من المتوقع  
مستار الإخراج

الحفاظ على

or

\*<sup>2</sup>

تم إنتاجها

\*<sup>2</sup>

Inputs يعني كيف بدى أو فر خدمة أفضل بنفس

\*<sup>1</sup> Expected to be maintained:

يعني كيف أقدم أو وصل خدمة الصحية للناس بنفس الجودة وأحفظ

level for health care delivery by lowest possible cost

This type of efficiency has been referred to as technical efficiency or operational efficiency, but also as **cost-effectiveness**



Drop يعني كيف بدى، حافظ على نفس المستوى من الخدمات الصحية نتيجة انتم الموارد قدت، حتى الخدمات ما ييسر لها

Efficiency \* هو نوع من أنواع

for better outcomes كيف أقدم أفضل الخدمات الصحية بنفس الموارد الجيدة

or

(Efficiency/Effectiveness) Two situation وتقال هذا بعقل

In order to determine whether and how certain services should be provided, and in order to establish priorities, **allocative efficiency** <sup>2</sup> **كفاءة التوزيع** must be used.

↓  
Efficiency \* من أنواع

It represents a situation where no input and no output can be transferred so as to make someone better off without at the same time making someone else worse off.

↑  
الاسم الحالي

This situation is called **Pareto-efficient**

Allocative Efficiency = Pareto-efficient = Pareto-efficiency

المعنى أقدم الكفاءة للمعنى بالناس بالصداي كمثل وزير الصحة وفكر التمويل إلى صوم Fund في مستشفيات العاصمة وفي مناطق أخرى حرمت من الخدمات الصحية والتطوير مقابل توفير مستودعي جدا من الزيادة الصحية في العاصمة بهيك تكون عدلت Cost-effectiveness كالتخطيط وحدة ليست موزعة توزيع عدل كوزم تراعي Allocative efficiency ← كازم تقسم الأوليات Priorities حتى أنترأوزع بشكل مساوي ليس الهدف أن أوزن خدمات لخدمات وأكمل worse كمنطق أخرى

باعتبار كوزم أنظم أولوياتي كالأساس Community needs مثلا وأقدم الكفاءة بالصداي كجست، لهذا كتنقسم لخصف وتكون سيطرة لدى المستخدم تحلين محلول ووزع بالصداي قسرا لتعاني حتى لو كان بالإمكان في Shortage حتى توفر بهالات ثم حوز ← مثلا لو متحدث عن ملامت مياه الشرب And Food safety and Vassiness كهم لهم نفس الأوليات ← فتأوله نوزع ال3 نفعلات ربع يكون في تقيس بالإصابة بهذين معفسهم مع الوقت

**Pareto efficiency** is **important** because it provides a weak but widely accepted standard for comparing economic outcomes.


A policy or action that makes at least one person better off without hurting anyone is called a **Pareto improvement**

## WHAT IS ECONOMICS?

- ❖ Economics is the science of **scarcity**.
- ❖ It analyses how **choices are structured** and **prioritized** to maximize welfare within constrained **(limited) resources**. [You should set priorities]
- ❖ Economics is the study of **distribution of scarce (inadequate) resources** commonly known as goods and services across a population.
- ❖ The discipline of economics deals with **use of scarce resources to satisfy human wants and needs** how best to use the resources available.



## What is health economics??


**Health economics** is a branch of **economics** concerned with issues related to **efficiency, effectiveness, value** and **behavior** in the production and consumption of **health\*** and **health care\***.

\* Health Economics : Health care system ← د. حاس  
Health care systems Economics ← طبعة بينا

In broad terms, health economists **study the functioning of the health care systems** as well as **health-affecting behaviors** such as smoking.

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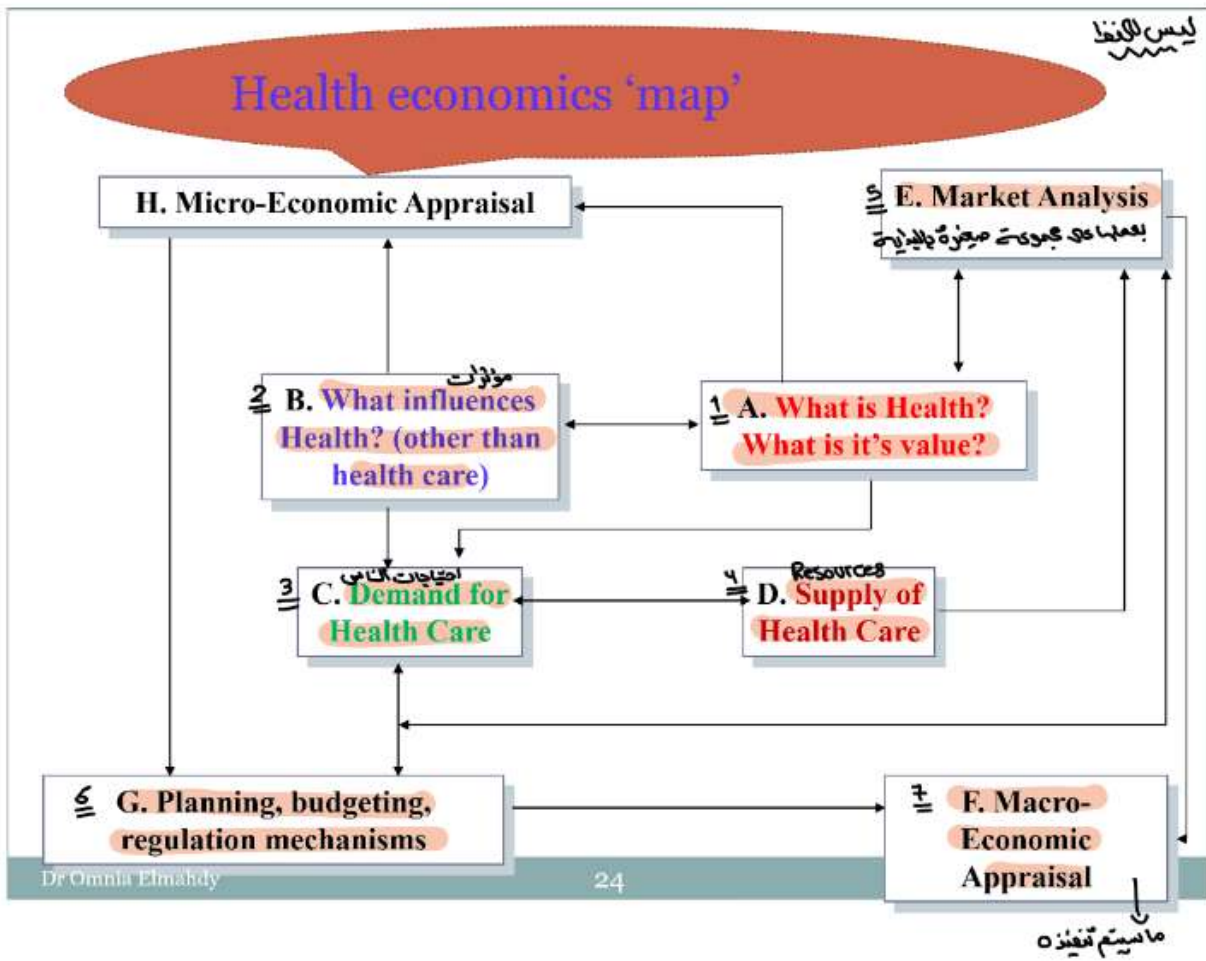
## Microeconomics and Macroeconomics

- **Microeconomics** focuses on the individual parts of the economy.
- **Macroeconomics** looks at the economy as a whole.
  - **Economy-wide** phenomena, including inflation, unemployment, and **economic growth** <sup>Ex:</sup> التضخم والبطالة والنمو الاقتصادي

↓  
كيف أدير أمور الدولة اقتصادياً

<h2 style="text-align: center;">Microeconomics</h2>	<h2 style="text-align: center;">Macroeconomics</h2>
<p>Individual and <u>Institutions</u> (Like: Hospital)          عن مستوى الأقرار أو المنشآت الصحية</p>	<p>Government/country/ System (الوزارة/ الحكومة)</p>
<p>E.X: Economics inside the hospital          مثلاً ← رواتب الموظفين</p>	<p>E.X: كيف أوفر وظائف للناس</p>

- Question: Which of the following is considered microeconomics ?
- A---- B... C.... D. Doctors behaviour / certain hospital Fund



# HEALTH

Important

- Health means a state of complete physical, mental & social wellbeing and not merely absence of disease or infirmity.



Health:

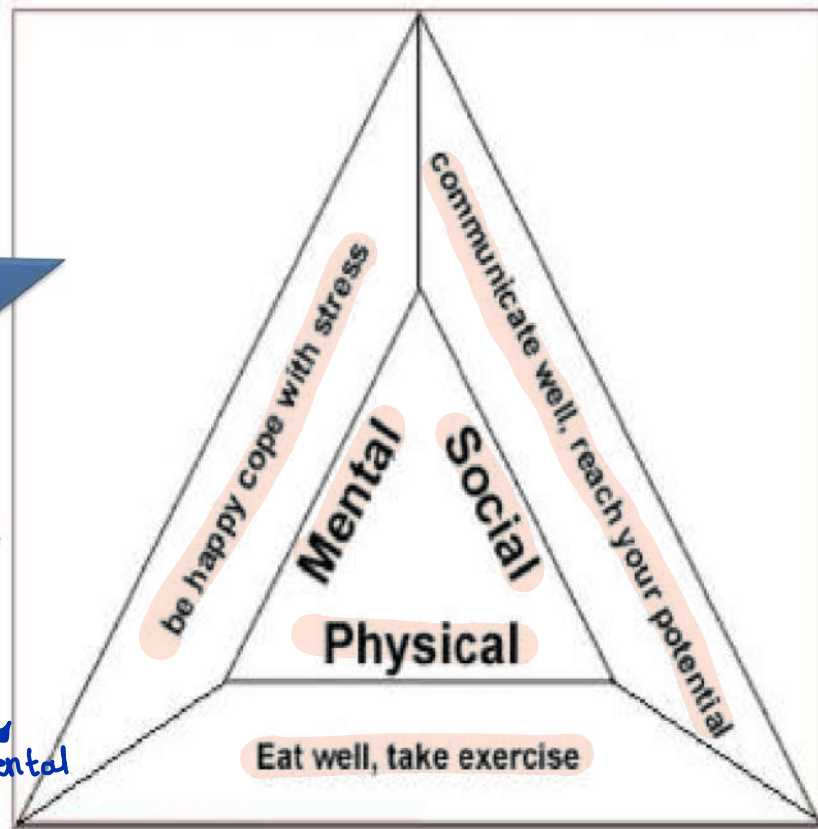
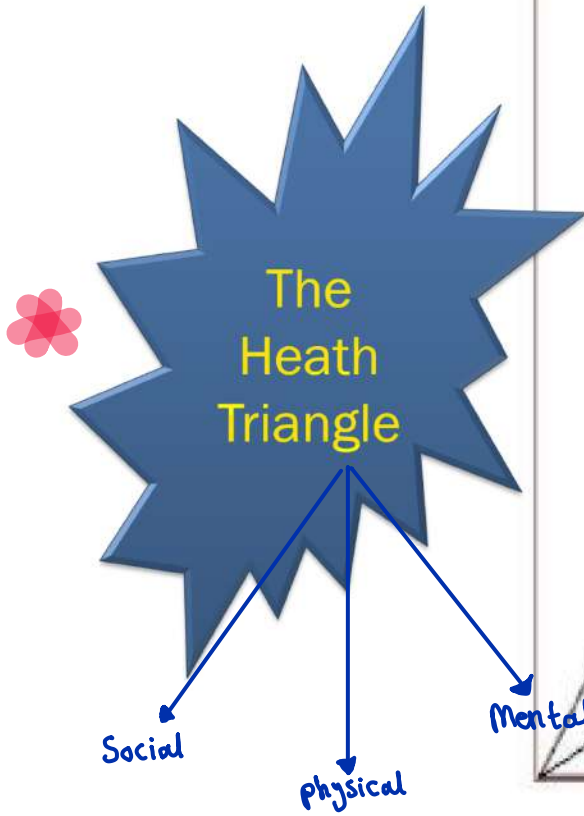
كل مفادها ما يكون عندي أمران ١- كذا ← في الناس ما عندها مرض عضوي لكن عندها مشاكل نفسية أو اجتماعية  
 في الناس ما عندها ما عندها مشاكل نفسية ولا اجتماعية ولا مرض عضوي لكن ما عندها fitness ما بتقدر تبدأ مجود

يعني كل الهموم فيه تمام "ما في أمران خلاصة عنده"



So, Health is a sound mind, in a sound body, in a sound family, in a sound environment.

So Important



البحال

# SPECTRUM OF HEALTH



# ✿ Signs of Good Health

what are signs of good

➤ **Physical health**—no disease

➤ Social health

يتعامل مع الآخرين ويستمعهم بكل ما تمسح به الناس أكبر كما ما كنت بان ذن سوية أكثر

➤ **Mental health**

كيف تتعلم بمتانوا ولا الشا حيا الى تتعلم فينا ؟

## Signs of Good Health

**B. Social health**  
 A person with good social health –

- gets along well with people around
- has pleasant manners
- helps others
- fulfills responsibility towards others

**C. Mental health**  
 Mental health implies -

- control on emotions
- sensitive to the needs of others
- confidence in one's own abilities
- freedom from unnecessary tensions, anxieties and worries

يعني مشاعر بالاشخاين

not yourself only

Health عكس

بدل ما يشتغل معي بشتغل ضدي

● **Disease**: Failure of the adaptive mechanism of an organ in human body to counteract (react or work against) the stimuli and stresses to which it is exposed, resulting in abnormal structure and function of one or more parts of the body.   
 كثير من الأمراض يكون سببها stress

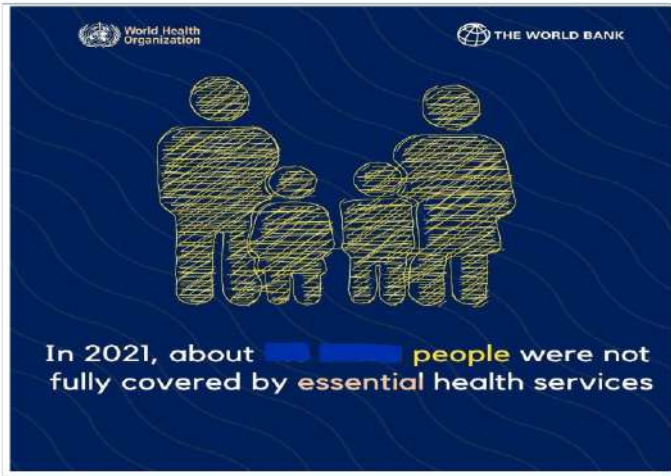
● **Health for all** : عملتها WHO

*Attainment (achievement) of a level of health that will enable every individual lead a socially and economically productive.*



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آخر إحصائية عملها WHO  
 يعني الأساسية مثل الحاء  
 في نفس ما بتقدم زنتعمل تخلفات الخدمات الصحية الأساسية



تختم اسواقنا من اننا نملوا هذه الخدمات البيرة

## ALMA ATA DECLARATION (1978)

Principles for primary health care هو الاعتراف بضرورة Health for all

- ❑ The **Declaration of Alma-Ata** was adopted at the **International Conference on Primary Health Care (PHC), Kazakhstan 1978.**
- ❑ It expressed the need for urgent action by all governments, all health and development workers, and the world community to **protect and promote the health of all people.**
- ❑ It was the first international declaration underlining the **importance of primary health care.**

الرعاية الصحية الأولية الأساسية

□ The primary health care approach has since then been accepted by member countries of the World Health Organization (WHO) as the key to achieving the goal of "Health For All" but only in developing countries at first. This applied to all other countries five years later.

□ It consider health as a human right.

Primary health care is the concept for health for

العالم. "الرعاية الصحية الأولية تقدم إلى جميع الناس مساوية"

الهدف من توفير الرعاية الصحية الأولية هو توفير الرعاية الصحية الأساسية

في جميع البلدان، سواء كانت متقدمة أو متخلفة.

Ex: Out reach programs (برامج الرعاية الصحية)



Health is a human Right  
(أحد حقوق الإنسان)

There are 2 types of nations or countries

Developing countries:

- High crude birth rate (20-40/1000) <sup>معدل المواليد ↑</sup>
- High infant mortality rate <sup>معدن وفيات الأطفال ↑</sup>
- high percentage of children < 15 yrs <sup>عدد الأطفال الأقل من سن 15 ↑ (Dependent) ← يستندون عليهم</sup>
- low percentage of elderly people > 65 yrs <sup>why</sup>
- Short life expectancy <sup>Because</sup>

Developed countries

- Low crude birth rate (< 10/1000)
- Low infant mortality rate
- low percentage of children < 15 yrs
- high percentage of elderly people > 65 yrs <sup>صالحات عن بعض الدول خصوصاً</sup>
- Long life expectancy <sup>أي، قلوا عن "Birth rate" بالزيادة</sup>





A Big  
thanks  
to you All!

