

Primary health care

* Definition of health :

- state of complete physical ,social and mental well being not merely absence of disease .
- dynamic state of complete physical, mental, and social and spiritual well-being and not merely the absence of disease and infirmity (WHO).
- adaptation (Hans's).
- satisfaction of physiological need (Maslow's).

* Dimension of PHC :

1- Physical dimension: includes perfect body functioning, physical fitness, Activities of daily living , state in which every cell and every organ is functioning at optimum level, and in perfect harmony with the rest of the body.

*NOTE: Activities of daily living (ADL): is an important **measurement** of the severity of a disease, the more it is affecting the daily living(like going to uni or any other life event) ,the more serious is the disease.

2- Mental dimension: divided into *psychological* aspect and purely *mental* aspect (the IQ and logic)
The mental dimension of health includes:

a-Ability to think clearly, reason objectively(logically)and having a state of balance between the individual and surrounding world. An example of lacking this is ADHD (attention deficit hyperactivity disorder).

b- Free from internal conflict (العقد النفسية) .

c- Aware about himself.

d- Having a good self-control.

e- Coping with stress.

-The dr. said that the Mental dimension is divided into psychological and mental aspects, so notice in the previous points some of them are more psychological while others are mental (related to the IQ).

3-emotional dimension:

self efficacy and self-esteem (the person should feel he is worth living!)

Emotional well-being is part of psychological emotional health, which means whether a person is depressed or happy.

4-social dimension: ability to have satisfying relationships. Which means whether the person is friendly aggressive or, lonely.

Being social is a positive sign of health ,while being lonely is a negative sign.

5- spiritual dimension: feeling as part of a greater spectrum of existence.

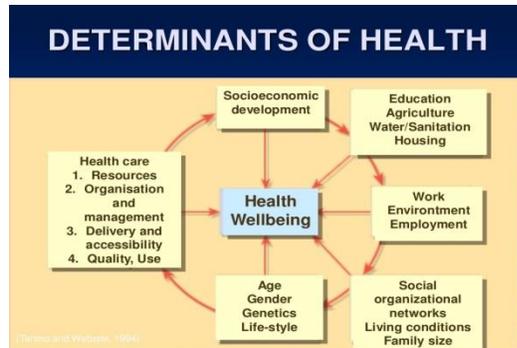
Spiritual well-being is related to **religion**, if you believe in **God** you will cope with stresses and diseases better, and coping with stress is so important in personality and character, and this will improve the health of the person .Mild stress can worsen the case of a person who lacks this spiritual well-being and coping of stresses .

6- Environmental dimension: appreciation of the external environment and one's role in caring of it.
-the environment should be healthy (like air, water..).

** Spectrum of health :*

Positive health – better health – freedom from disease – unrecognized disease – mild disease – severe disease – death .

** Determinants of health :*



1)Socioeconomic (المستوى الاقتصادي و الاجتماعي): is a very important determinant .In poor countries you can see a lot of infectious diseases, malnutrition and very high mortality rate, because the health services and environment are very poor and that affects the health in general.

2) age :Obviously this affects **children, pregnant women** and **elderly** more, because they have special needs, although they are not true patients. for example, being old is not a diseases ,but old people have degenerative changes in their physiology which put them in risk.

Also The child maybe, he's not sick ,he is growing well, but his immune system is still growing too, so he's only physiologically stressed . Pregnant woman as well is physiologically stressed.

This makes them all more sensitive to environmental factors (like weather, nutrition and exhaustion) .

3)gender is also a determinant. some diseases affect females more and vise versa.

4)Genetics is also a determinant; there are **familial** diseases for example.

5)Life style: is very important in prevention of diseases.

Examples of different life styles and habits are nutrition, exercise(which is good), sleep disturbance and lack of sleep,(which is bad), and so on.

-Normal duration of sleep should be 6-10 hours .

** Levels of care :*

1- **Primary health care** :is the 1st level of contact between community members and the health services. **It's for promotion** of health and **prevention of diseases can be managed** , that is why people who come to PHC centers are not true patients yet ,essential health care is provided.

2- **Secondary health care** which is more curative, provided by district hospitals ,first referral level .

3- **tertiary health care** : it deals with **complications** of diseases and usually they go to central level institution of hospitals, and provide training programs ,provide super specialist care.

** Primary health care :*

PHC is the care of the whole family from the new born to the eldest in the family. and it's essential health care that is:

(1) ***Socially appropriate***, this differs depending on what is socially acceptable in different countries. For example it's not acceptable to have clinics for pregnancy planning for teenagers in Jordan! Unlike the developed world where it is acceptable, as they have many adolescent clinics.

(2) ***Universally accessible***, this means to be available to all the community (rich and poor people equally) and also universal wise ,it should reach the developing and developed world equally ,since these services represent the base of primary health!

(3) ***scientifically sound first level care*** provided by suitably trained workforce supported by integrated referral systems and in a way that gives priority to those most in need. Priorities have to be taken in considerations, for example there's no need to focus on HIV prevention In Jordan like in other countries. But instead ,we focus on other diseases that are widely spread here, family planning ,etc..

4) ***Maximizes community and individual self –reliance*** and participation and involves collaboration with other sectors (like agriculture, industrial and education sectors)

PHC includes the following: - health promotion. - illness prevention. - care of the sick. - advocacy. - community development.

** The functions of primary health care:*

1- to provide continuous and comprehensive care.

we have to look for underlying causes ,and to deal with the person as a whole in PHC.

2- to refer to specialists and/or hospital services, if needed.

3- to co-ordinate health services for the patient.

4- to guide the patient within the network of social welfare and public health services.

5- to provide the best possible health and social services in the light of economic considerations.

** Principles for PHC:*

PHC is based on the following principles:

1- social equity: everyone can have it.

2- nation-wide coverage (not to focus on Amman at the expense of Tafila for example.)

3- self-reliance.

4- Inter-sectoral coordination as mentioned earlier (point 4 page 5).

5- People's involvement in the planning and implementation of health programs.

**Core activities for PHC:*

There are certain services that are under the umbrella of PHC.

1) Health education: it is on the top of the list! It is the skeleton of the primary health care ,because improving the community awareness , will change the life style, and provide the 1st preventive line in the health . Also education will let people know about the available services in the community .Thankfully, this is obviously improved nowadays. For example it was only 30% of pregnant women who visit the maternal and pregnancy clinics, unlike these days ,where around 86% of women do.

- 2) **Prevention of endemic diseases like malaria in Sudan.**
- 3) **Immunization by vaccination against infectious diseases .**
- 4) **promotion of food supply and proper nutrition.**
- 5) **adequate supply of safe water and sanitation .**
- 6) **maternal and child care include family planning, important in Jordan.**
- 7) **appropriate treatment of common disease and injury .**
- 8) **basic laboratory service and provision of drugs cos** If we get right diagnosis, we will get right treatment.
- 9) **training of health guide and assistants.**
- 10) **referral services**
- 11) **mental health**, it's not only related to the central nervous system diseases but also with psychiatric illnesses like schizophrenia, depression.
- 12) **physical handicaps**, there should be specialized foundations for physiotherapy, and they are found in developed countries as well as in Jordan.
- 13) **Health and social care of the elderly**, with increased development of countries, lifespan should be longer resulting in higher elderly percentage. In developed countries the percentage may reach 10-12%, however in some other developing countries it is not above 2%

Three groups of community need special needs which are:

- Newborns and children, because they are in growing stage and immunity development .
- Pregnant and lactating women.
- Elderly because they start to have degenerating changes and chronic diseases.

Also, People who have diabetes or hypercholesterolemia or cardiovascular disease must take care of their diet before taking the medicine.

*The goal of PHC is to decrease the difference of mortality and morbidity between developing and developed countries and to include all individuals of the society.

** Strategies of PHC:*

- 1-Reducing excess mortality of poor marginalized populations (health care must be provided to all populations).
- 2-Reducing the leading risk factors to human health, for example: the risk factor of diabetes is obesity, it can be genetic as well.
- 3-Developing sustainable Health Systems: PHC should be financially stable with an adequate constant budget provided by government, political leaders and population served.
- 4-Developing an enabling policy and institutional environment, policies should be made to aid PHC and to promote environment and community standards to better levels.

ex: prohibiting smoking in public places and transportation services, parents should provide a list of vaccinations when applying their kids to schools and Premarital Test . This is how policies help people in adapting healthier lifestyles and get the preventive services.

*** The Basic Requirements for Sound PHC (8A's and 3C's):**

- 1-Appropriateness:** whether a service is necessary and beneficial to the community. The service should be properly selected & provided by a highly qualified staff, for example: A nurse should know how to give an injection correctly and safely, and use the ultrasound to provide antenatal care.
- 2- Adequacy:** The service proportionate to requirement, Sufficient volume of care to meet the need and demand of a community, example: having 200,000 children in need of polio vaccine, the amount of vaccines should be equal to the demand.
- 3- Affordability:** The cost should be within the means and resources of the individual and the country.
- 4-Accessibility:** Is the degree to which a product, device or service, is available to as many people as possible, reachable, convenient service so PHC centers should be distributed equally throughout the country and transportation to them should be taken into consideration. (geographic ,cultural ,economic).
- 5- Acceptability:** The quality or state of meeting one's needs adequately depends on many factors: quality of care provided, efficiency, trust of the care provided, satisfactory communication between health care providers and the patients. The quality of care provided should be up to health department standards, if the service provided is not good it will only be used when it is crucially needed which doesn't meet the purpose of PHC in providing preventive services before having an illness, for example if a maternal clinic is not good, pregnant women will visit it only when suffering severe pain or bleeding, and avoid recommended checkups.
- 6-Availability:** It can be obtained whenever needed.
- 7-Assessebility:** Means that medical care can be readily evaluated.
- 8-Accountability:** The obligation of an organization to account for its activities, accept responsibility for them, and to disclose the results in a transparent manner. It also includes the responsibility for money or other entrusted property. It implies the feasibility of regular review of financial records by certified public accountants.
- 9-Completeness:** Being able to cover all aspects of care, prevention, early detection, treatment, diagnosis, checkups, routine follow ups, rehabilitation, ex: providing physiotherapy for the hemiplegia after a cerebrovascular stroke, and continuous follow ups for diabetic patients after describing drugs to them.
- 10 Comprehensiveness:** Covering every aspect needed to provide essential PHC; from head to toe. If a patient came with abdominal pain, we don't only examine the abdomen, but also we make a general checkup.(care provided for all types of health problems) .
- 11- Continuity:** Management of patients care over time coordinated among providers as long as needed Important for chronic diseases: diabetes, hypertension, ischemic heart disease. Because these diseases if not controlled, they'll cause severe problems, however if they're controlled the mortality rate will be greatly reduced.

To summarize:

- PHC focuses on the person not the disease, considers all the determinants of health.
- Integrates care when there is more than one problem.
- Uses resources to narrow differences between high and low social classes.
- Forms the basis for other levels of health system.
- Addresses most important problems in the community by providing preventive curative and rehabilitative services.
- Organizes deployment of resources aiming at promoting and maintaining health.

*** Primary Health care reform:**

- Medical model was found before the primary health care system and there are differences between them.
- The medical model cares about curative treatment of diseases, later came the primary health care model that has to do with prevention of diseases and health promotion. Episodic care in the medical model is when having acute attacks, ex: Tonsillitis, attacks of renal colic, attacks of numbness. The primary health care model shows continuous care not just providing treatment and not seeing the patient again.
- The medical model is provided only by the health sector, whereas the PHC model is provided by intersectoral collaboration; the economic, the financial and many other sectors.

Medical model	PHC system
Treatment	• Health promotion
Illness	Health
Cure	Prevention ,care
Episodic care	Continuous care
Specific problems	Comprehensive care
Individual practitioners	• Teams of practitioners
• Health sector alone	• Intersectoral collaboration
• Professional dominance	• Community participation
• Passive reception	• Joint responsibility

*** Conclusion:** The PHC centers should be working together for better health, dealing with all family members .

*** PHC team:**

The staff working in PHC should be a large team covering all aspects of care needed from General physicians (GPs) to psychiatrists, all of whom are completely qualified and experienced; together they can provide total health care to patients; which is their common goal.

team : A group of people who make different contribution towards the achievement of common goal.

1. Family health services which are administered by FHSAs: GPs, dental practitioners, Pharmacists, opticians (who are required to measure the visual acuity for children and elderly; not ophthalmologists).

2. Community Health services include: community doctors, dentists, nurses (midwives) and other allied professions such as chiropody and physiotherapy

3. Counseling: social workers, psychologists, and psycho-therapists (very important for social and mental health), in Jordan we are very behind in this aspect because of our social beliefs.

4. Administrative.

5. Reception: for making appointments.

6. Secretarial/ clerical work.

**** Essential characteristics of team work :***

- The members of a team share a common purpose which binds them together and guides their actions.

- Each member of the team has a clear understanding of his own functions and recognizes common interests.

- The team works by pooling knowledge skills, and resources: and all members share the responsibility for outcome.

**** There are always certain indicators that reflect the quality of services in any community like:***

• The Rate of mortality and especially infants mortality which is more sensitive to the quality level of services more than other ages

• The Life Expectancy : the more developed the country, the longer the life expectancy among any community, the less the mortality rates, the less fertility rates.

*** Current health status and health care in Jordan:**

Health status has improved significantly during the past 30 years. Some important indexes to go with:

A. **Life expectancy** at birth increased from **49 in 1965 to 66 years** in 1990 to 72 in 2004 to **73 in 2012 (71.6 males and 74.4 females)** this means that the health services have been improved the last 50 years in Jordan. Ranging from 57 in developing countries to 76 years in developed countries in average. Therefore, Jordan is closer to the developed world numbers in Life Expectancy

B. **Infant mortality** is a very sensitive period that requires extra medical care, the more the older you get the less risk you are subjected to. while the infant in his earlier days is in more risk to die ***Neonatal death** is related to the infants that die in their first month while **infants death** occur in their first year .so **Neonatal** mortality rates are more sensitive to quality of health services than **Infants** mortality rates but here in Jordan they don't calculate the **Neonatal** mortality rates because of some reasons and the **Infants** mortality rates is the one that is considered : -Infant mortality decreased from **130 in 1960** to 35 "**per 1000 live births**" in 1992 to 22 in 2002 to 19 in 2007 to **17 in 2012**.

Again, you don't have to memorize all these numbers you only have to compare between Now and the past.

C. **Total fertility rate** dropped from **7 in 1988** to 5.6 in 1994 to 3.7 in 2002 to 3.6 in 2007 to **3.5 in 2012** so it has dropped 50% in the last 28 years it means Jordan is improving in health care services and better staffs to work in PHC because we have to control the rates of children per families, But the total fertility rate is still influenced with the culture.

D. **Infectious diseases:** Small – Pox was eradicated on 1979 **Measles** " الحصبة , polio " الأطفال شلل " prevalence rates were decreased a lot but they weren't eradicated.

Some selected indicators **from 2012:**

Population growth (2.2%): while in the 80's it was about 4.5 Population growth reflects 3 things :the fertility rates, the mortality rates and immigration rates

Population Doubling Time (31.5years): the less the population growth the longer the population doubling time which is better

Population Less Than 15 Year of Age (37.3%)

While in 80's they were more than 50% of the population, this reflects that the population growth is less and fertility is less and PHC is better

Population Age 65+ years (3.2%): in some developed countries it reaches above 10%

Urban Population (82.6%) : in Jordan the population percentage is highly Urbanized it is better to have well distributed population between the cities and the countryside which means the services are equally distributed

Life Expectancy at Birth (73 year):71.6 Male 74.4 Female

-the figures in slide 64 about area and population densities aren't important

Summary and updates for some of what mentioned earlier:

Over the next 50 years, Jordan's **demographics will change dramatically** – This will pose great challenges for the country.

**** “Demographic Transition and Economic Opportunity”:***

The country’s population is growing rapidly, doubling over the last 20 years and likely to double again by 2029. However, it is undergoing a demographic transition: moves from high fertility and mortality, to low fertility and mortality .

- **Fertility declines** in Jordan have contributed to slowing the population growth rate down to 3.2 percent in the second half of the 1990s, and to **2.8** percent in 2002
- **The urban population increased** by 14 percent between 1980 and 1994, increasing from 70 to 79 percent to 82.6 % in 2012
- The proportion of the population under 15 years of age declined from 51 percent in 1979 to **37.3% by 2012**
- **Jordan Association of Family Planning and Protection (JAFPP)** which is UN funded organization works mainly on family planning services by dropping the fertility to the half in the last 40 years
- While low infant mortality rates and high life expectancy - are among the best in the region, the population growth rate continues to be a major developmental constraint especially when analyzed in light of the **quantity and quality of services** to be provided to accommodate this rapid increase in population.
- **An unmet demand for high quality maternal -child health care services** which is the unachieved rate for desired number of the family and the real number of the family the less the **unmet demand** the better the distribution of services ,lately in Jordan the unmet demand had dropped to almost 1 family member difference and this is a very important factor affecting the availability and affordability of antenatal services
- **The Ministry of Health (MOH)**, through its Maternal and Child Health Centers (MCH), provided optional and predominantly free family planning services as an unofficial and indirect intervention in the population policy. The efforts made by the Jordan Association of Family Planning and Protection (JAFPP), as well as by some voluntary nongovernmental organizations, were invaluable in this regard.
- **Chronic diseases** : another important indicator for population ages the higher the life expectancy ,the higher prevalence of chronic disease rate so in developed world .
- **Maternal mortality**: in some of developed countries the maternal mortality is almost zero, however in Jordan Maternal mortality is almost 40 "per100.000"
- **Infant mortality** usually is higher rate than maternal mortality and it is more sensitive to PHS and is calculated "per 1000"

**** Primary Health Care Initiatives Project:***

- We have 380 PHC clinics in Jordan
- Renovation and provision of furniture and specialized medical equipment and usually is funded by WHO.
- Clinical training of service providers
- Establishment of performance improvement review systems
- Improvement of the management information system

**** Primary Health Care in Jordan:***

- It follows that for a community like JORDAN were
- The population is small and highly urbanized .
- Highly qualified medical personnel are abundant.

- Intermediately qualified paramedical staff are scarce (rare)
- Piped water and safe waste disposal are almost universal

*** Three main reasons for PHC in Jordan 1986 MOH study visits are :**

- 33% respiratory diseases
- 14% infectious and parasitic diseases
- 10% digestive diseases

* Set the (PHC) service according to the → **needs** of the community + **prevalence** of diseases.
how to know needs of the community?

By knowing the **causes** behind diseases and deaths in the community

* Give priorities according to the → **resources**

if the disease is an **infectious** disease → we have to see the indigenous diseases.

Indigenous → means existing naturally in a particular region or environment. الأمراض المستوطنة

➤ if the disease is an **epidemic** disease → we treat it according to its type.

Epidemic → means affecting a disproportionately a large number of individuals in a community

#Example: **H1N1**, we should give it priorities, provide services, apply screening, prevention and if there is an available vaccine we should provide it.

*** Causes of death :**

We will start talking about these causes globally, then we will discuss in details causes of death in Jordan.

*Globally, these causes were divided into:

1. Low social class.
2. Middle social class.
3. High social class.

✓ **Low social class:**

Main causes of death in this class are:

1. **Infectious diseases**; they increase with poverty and actually there are people who die because of infections until now. To clarify why these infections are still considered a cause of death in low social class, we should take into consideration the:

- Poor hygiene.
- Poor environment.
- Poor nutrition.
- Poor vaccine coverage.

Most commonly, these infectious diseases occur in children and they die because of it.

2- **Maternal problems**. With the development of services, there should be no problems arising in this regard. Still, in developing world, there is a high percentage of maternal death as they die because of pregnancy and during delivery. On the other hand, in the developed world, these causes of death (infections and maternal problems) are not present but we will find more **chronic diseases** and degenerative diseases which are the top causes of death in middle and high income classes.

The top 10 causes of their deaths:

- 1- Lower respiratory infection – **The main cause.**
 - 2- Coronary and other non-communicable diseases; used to be with stroke but it is now rising in the developing world and that's due to the **slow increase in life expectancy** (life expectancy increases in the developing world but not as much as in the developed world) so it became the second cause of death.
 - 3- Diarrhea (an infectious disease, transmitted from one person to another).
 - 4- HIV (infectious).
 - 5- Stroke and cerebrovascular diseases (non-infectious).
 - 6- Chronic obstructive pulmonary disease.
 - 7- Tuberculosis (infectious).
 - 8- Neonatal infections.
 - 9- Malaria (infectious).
 - 10- Prematurity (non-infectious) : babies born before 36 weeks of gestation.
- Obviously, if you go back to this list of causes, you will find that infectious diseases constitute a high percentage. If you sum all of the causes up they won't give you 100%; **Why?** because sometimes they have doubled disease (for example, they have malaria and they die from a cardiac disease).

- infectious disease : transmitted
ex: diarrhea,runny nose,respiratory tract infection,HIV .
- non infectious disease : chronic diseases
ex: cancer and hypertension

✓ **Middle social class:**

- Non-communicable diseases are becoming more on the top of the list of causes of death in this class because infectious and maternal diseases started to decrease.

Causes of deaths in this class:

- 1- Stroke and cerebrovascular diseases.
 - 2- Coronary heart disease.
 - 3- Chronic obstructive pulmonary disease (**COPD**).
 - 4- Infectious diseases including lower respiratory tract infection.
 - 5- Road traffic accidents (non-communicable)
 - 6- Hypertensive heart disease (non-communicable)
- ** Note that the first 3 causes are **non-communicable** diseases.
** Infections are decreasing and non-communicable diseases are taking place.

✓ **High social class:**

- Non-communicable diseases are the major causes of death.
- % of death = **13.8%** or 138/1000.

Causes of death in this class:

Mainly, coronary heart diseases (CHD) are on the top of the list.

Jordan is very similar as CHD come on the top of the list of causes of deaths. Thus, when we want to provide services we should consider CHD and think of what we can do with it.

Degenerative and aging are not controllable (we can do nothing) but if there are available services that aid in prevention then we should provide them.

*** where does Jordan fit when compared to the previous statistics?**

- By improving the medical services in Jordan, the causes of death started to change from infectious to non-infectious diseases.
- The **first study** mentioned in the slides was made in **1979**. But why to study such old study? It is just to see the shift that occurred in relation to the causes of death and again there is no need to know these numbers.
- **Why did this shift occur?** Because of :
 - 1- Better health services.
 - 2- Better environment.
 - 3- Better housing.
 - 4- Better vaccination coverage.
 - 5- Better hygiene.

*** In 1979:**

- **Cardiovascular diseases** were on the top of the list.
- Followed by **respiratory diseases**.
- Third, **diarrhea**, constituting **16%** especially in children; because they are more prone to go into shock and die because of their low weight and the percentage of water they lose compared to their weight is very high.
- **Accidents**; increased recently.
- **Maternal problems**; we will notice in the recent study that this cause is no longer present as pregnancy is not considered any more as a cause of death because of better prevention and better **antenatal care** (a branch of medicine that deals with the care of women during pregnancy).
- **Cancer**; we will find that it is recently considered as a second cause of death after cardiovascular diseases. but **why?**
 - 1- Environmental factors (pollution, nutrition, lifestyle, smoking, radiation)
 - 2- More importantly, improved investigation and technology of diagnosis (screening, better MRI, CT scan, mammograms). That's why 50 years ago people used to die from cardiovascular diseases and they have undiagnosed cancer . Now, there are very few percentage of death without diagnosing cancer.
- **Malnutrition** used to be considered as one of the causes of death (about **3%**) but now in Jordan we don't have it. in some **developing countries** we still have malnutrition

*** The second study was done in 1991:**

- On the top of the list we still have **cardiovascular** diseases (increased from **21%** to **39.7%**).
- **Accidents** (are now the second cause, before they were the fourth cause).
- **Cancer** (non-communicable).
- **Lung infections**.
- **Kidney and liver diseases**.

** you only need to know the top 3 causes in the list + no need to know numbers ,numbers are only to show you that with development of health services there will be differences in the causes of deaths and sequence of priorities in the community

*** In 2005. The study in 2012 shows almost similar results :**

- On the top of the list, **CVD** especially **coronary heart disease (41%)**.
- **Neoplasms**.
- **Accidents**
- **Non-communicable diseases**.
- **Pregnancy and child birth problems** (it decreased from **3%** to **0.11%**).

*** Latest statistics; 2010:**

** note that studies about causes of death are not easy to be done, we can't do it every year. At least we need 10 years between them as they are expensive

- **IHD (18%)**, you have to add it up to (**stroke**) together they are about (**30%**) of the causes. - --
- **Cancer**; a much higher percentage (because of the causes mentioned previously).
- **Preterm birth complication** (premature).
- **Lower respiratory tract infection.**
- **COPD.**

Cancers, IHD and **stroke** are known to be one of the most causes of death in the developed world.

It is very important to note **Diabetes** in the list. If **Mortality was 7%** , **Morbidity** would be **at least 3 times more**; so diabetes is considered a serious problem in Jordan.

* What are the factors that affect *the improvement of health services*?

Resources + science (to know, search, and diagnose) + **technology development.**

All these will help in good diagnosis thus good treatment