

# PATIENT EDUCATION AND HEALTH PROMOTION

## Objectives:

1. Recognize the impact of different lifestyle modification measures on atlas of morbidity of Saudi population.
2. Explain patient education purposes and factors to consider in the process and how to ensure its effectiveness.
3. Define health promotion with example to encourage good behavior and discourage bad health behavior.
4. Become aware of health belief model.
5. Discuss why primary care is the optimum setting for health education and health promotion.

## Done by:

Team Leaders: Arwa aljohany & Rawan mishal & Abdulrahman Alaujan

## Members:

1. Faisal Alqarni
2. Abdulmalik Abdulaziz Alharbi

Revised by: Salem AlAmmari, Sondas Alhawamdeh

When you see “skipped by the doctor” just know that this is just to inform you. It doesn’t necessarily means it’s not important or it won’t be part of the exam

## References

- Doctor’s slides and notes

*Important Notes Extra Golden*

Editing file [link](#)

“There I am standing by the shore of a swiftly flowing-river and I hear a cry of a drowning man. So I jump into the river, put my arms around him, pull him to shore and apply artificial respiration. Just when he begins to breathe, there is another cry for help. So I jump into the river, reach him, pull him to shore, apply artificial respiration, and then, just as he begins to breathe, another cry for help. So back in the river again, reaching, pulling, applying, breathing and then another yell. Again and again, without end, goes the sequence. You know, I am so busy jumping in, pulling them to shore, applying artificial respiration, that I have no time to see who the hell is upstream

pushing them all in”. Zola, I.K. “Helping – does it matter? The problems and prospects of mutual aid groups ”.

## Crises Management

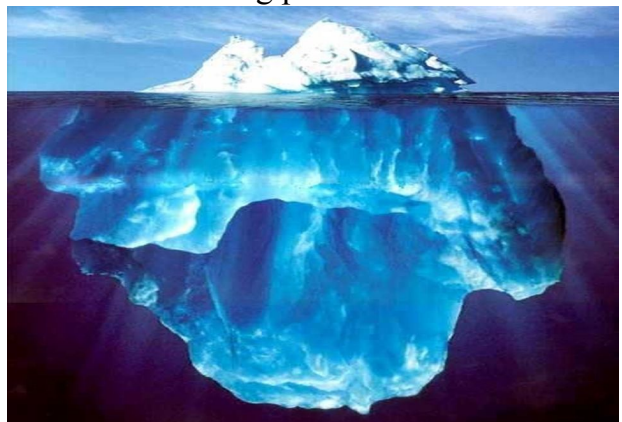


Iceberg phenomenon

- Cost ?

- Less attention on prevention??

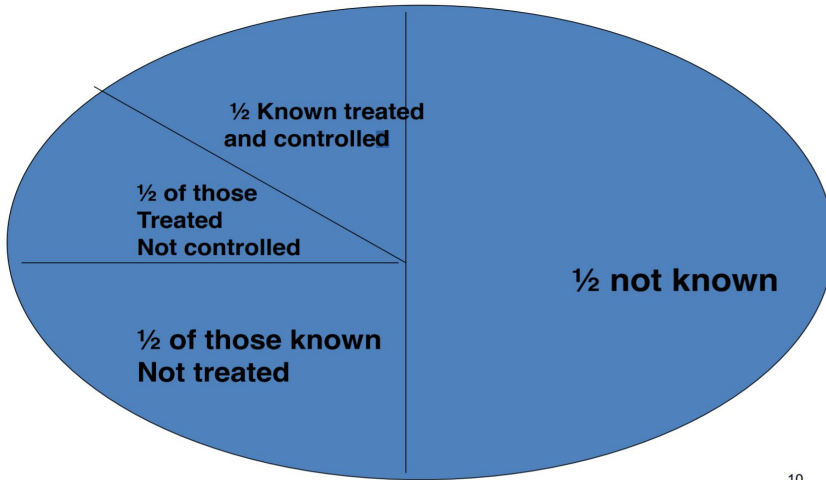
Less than one cent of every health care dollar in the U.S. is spent on prevention research .



An example of the iceberg phenomenon: the known cases of COVID-19 are outweighed by the number of the unknown ones

This rule is important: half of those who have HTN are not diagnosed , half of the diagnosed ones are not treated, half of the treated ones are not controlled

## The Rule of Halves in Hypertension



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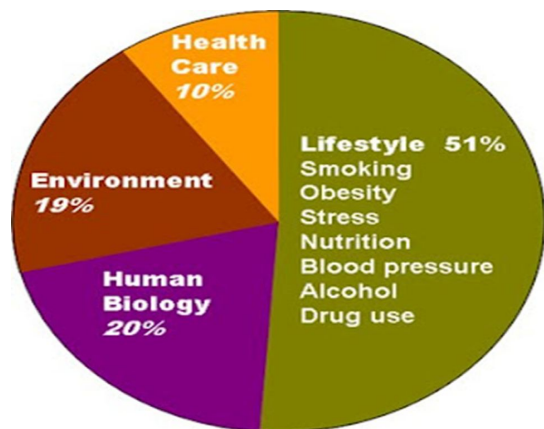
## Defining Health: The World Health Organization

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity.

Prevalence of hypertension and risk factors in three national studies

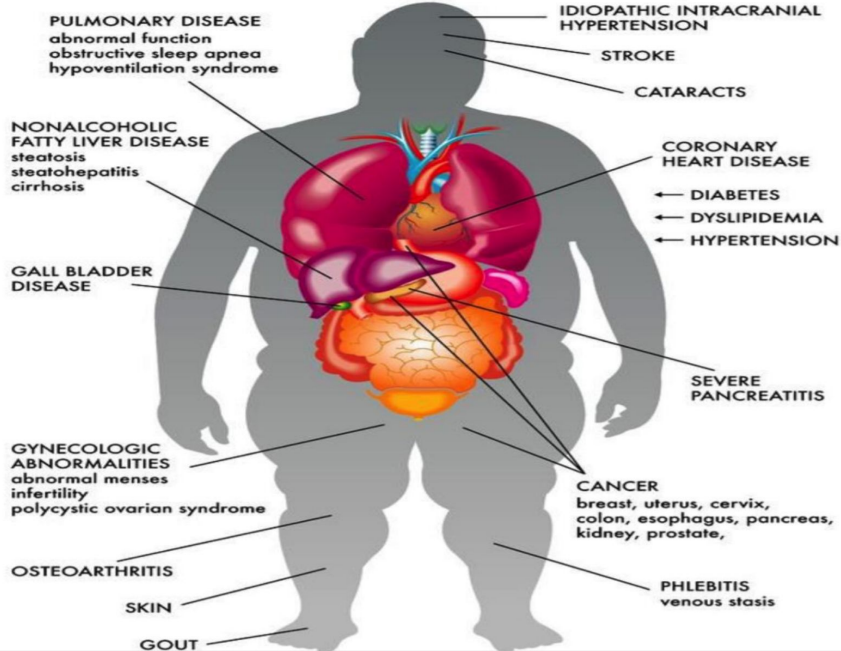
Diseases and risk factors	*Nozha et al (%)	**Stepwise + MOH study (%)	***IHME + MOH (%)
Hypertension	26.1	26	15.2
Diabetes Mellitus	23.7	17.9	13.2
Hypercholesterolemia	54	19.3 (TG 40.3)	8.5
Body mass index (BMI)			
A- 30	35.5	36.1	28.7
Overweight	35.6		30.7
Central obesity		29.4	
Smoking	12.8	12.9	12.2
Consuming less than 5 servings of fruits and vegetables /day		93.5	92.8
Low physical activity	96.1	33.8	60.3
Coronary artery disease	5.5		
Metabolic syndrome		39.3	

- \*conducted 1995-2000 on more than seventeen thousands Saudis aged 30-70
- \*\*conducted 2004-2005 on 4758 Saudis aged 15-64
- \*\*\*conducted 2013 on 11700 Saudis aged 18-65



# Obesity

## medical complications



### Overweight :

Increasing weight associated with:

- increase risk of overall mortality (up to 2.5-fold in the 30-44 age group, less at older ages)
- increase risk of cardiovascular mortality (up to 4-fold in the 30-44 age group, less at older ages)
- increase risk of diabetes (up to 5-fold)
- increase risk of hypertension
- increase risk of some cancers
- increase risk of gallbladder disease

### Physical activity :

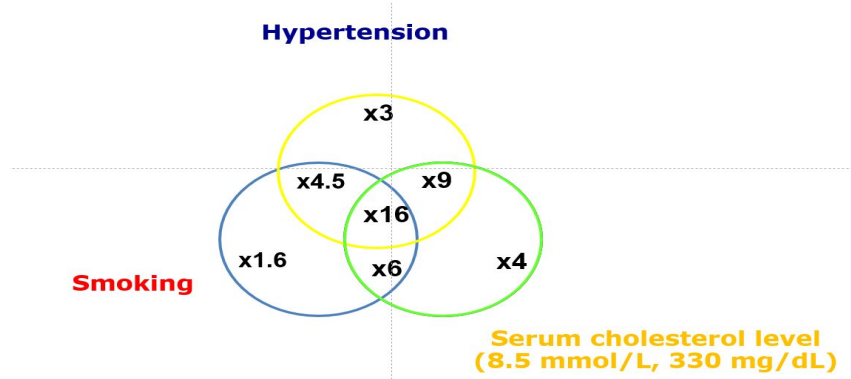
A sedentary lifestyle increases the risk of :

- overall mortality (2 to 3-fold)
- cardiovascular disease (3 to 5-fold)

The effect of low physical fitness is comparable to that of hypertension, high cholesterol, diabetes, and even smoking

# Levels of Risk Associated with Smoking, Hypertension and Hypercholesterolaemia

With addition of risk factors the risk increases exponentially

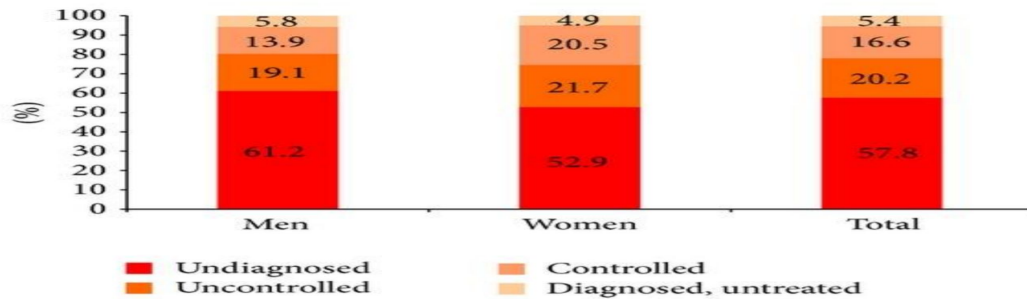


## ACCUMULATION OF RISK FACTORS

- Risk behavior
- Unbalanced diet
- Inactivity
- Obesity
- Smoking



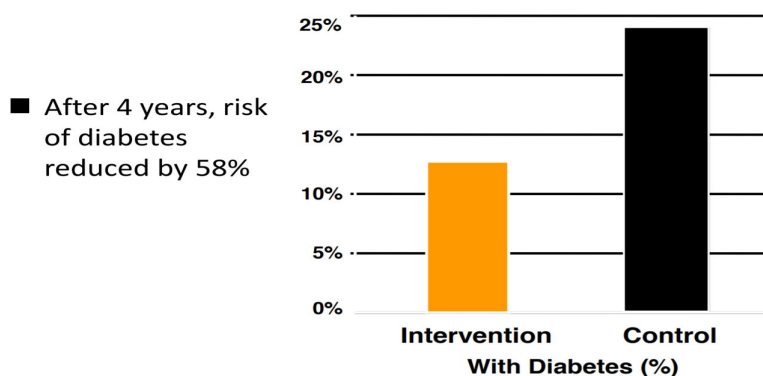
## Percent distribution of diagnosis and treatment status among hypertensive Saudis aged 15 years or older, 2013



## What can be done to change the picture ?

DO WE HAVE EVIDENCE TO SUPPORT INTERVENTION?

### Benefit of Treating The Metabolic Syndrome: Finnish Diabetes Prevention Study



Tuomilehto J, et al. *N Engl J Med.* 2001;344:1343-1350.

Diet and weight control will decrease the systolic bp by how much ? By 6 mmHg



**(IMP)**

### Impact of health behaviors on blood pressure CHEP 2014

Intervention	Systolic BP (mmHg)	Diastolic BP (mmHg)	Evidence grade
Diet and weight control	-6.0	-4.8	B
Reduced salt/sodium intake	- 5.4	- 2.8	A
DASH diet	-11.4	-5.5	B
Physical activity	-3.1	-1.8	D
Relaxation therapies	-3.7	-3.5	B-D
Multiple	-5.5	-4.5	



## Evidence for Lifestyle modification the doctor said it is extra

- A weight loss diet resulted in reductions in body weight and BP.
- Reduced sodium intake reduces blood pressure ,risk of stroke and fatal coronary heart disease .
- The inverse association between low-fat dairy foods and fluid dairy foods and risk of EBP.
- A high fruit and vegetable intake is inversely associated with BP levels.
- Regular aerobic exercise significantly reduces BP the equivalent of 1 class of antihypertensive medication.
- Hypertension was associated with smoking in a dose–response manner.
- Improve sleep quality could serve as effective primary, secondary, and tertiary preventive measures for hypertension.

## Principles of patient education

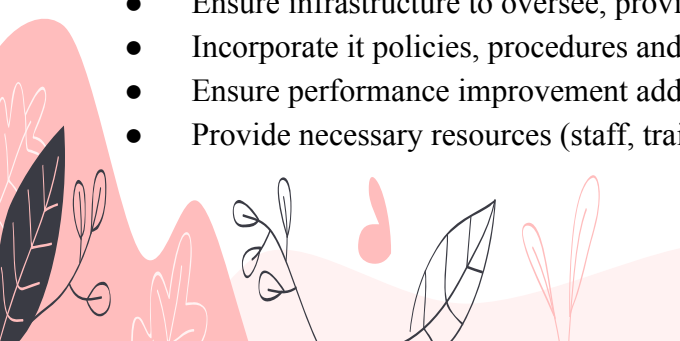

### patient education purposes

- Conveying knowledge and understanding
- Creating a different attitude or perspective
- Building skills
- Changing behavior

### Factors to consider

- Patient’s and family’s beliefs and values.
- Their literacy, educational level and language
- Emotional barriers and motivations
- Physical and cognitive limitations
- The financial implications of care choices

### To ensure pt ed is effective component of pt care

- Incorporate it into mission and strategic priorities
  - Create environment that encourage pt ed efforts
  - Ensure infrastructure to oversee, provide and support pt ed
  - Incorporate it policies, procedures and protocol
  - Ensure performance improvement address pt ed
  - Provide necessary resources (staff, training and materials)
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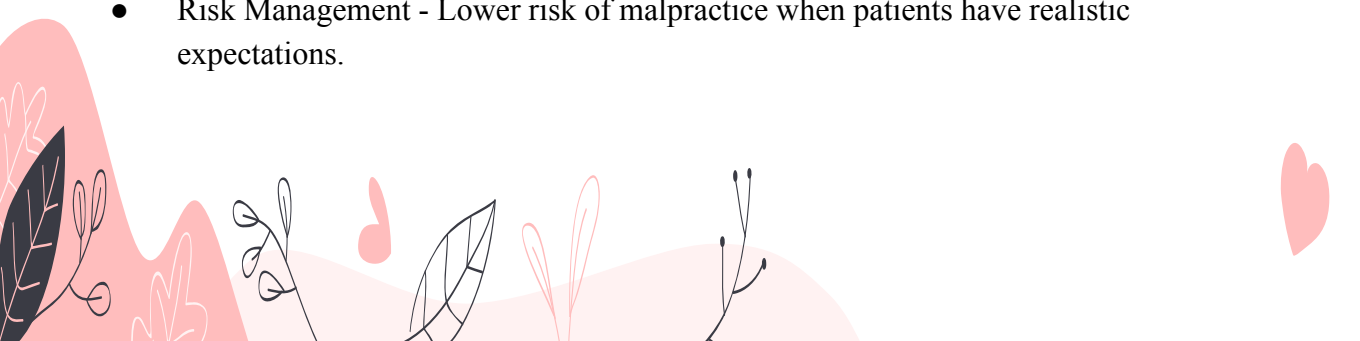
## Improving patient education

- Assess educational and clinical needs
- Include in patient education classes
- Skills lab for patient and family
- Individualize printed materials (culturally sensitive??)
- Educational telephone program
- Self-monitoring diaries for self assessment and learning
- Well prescription (behavior, exercise, diet, stress ,reading ect)
- Workshops for staff
- Multidisciplinary pt ed committees + pt +family (needs, design, evaluate )

## Challenges to effective education

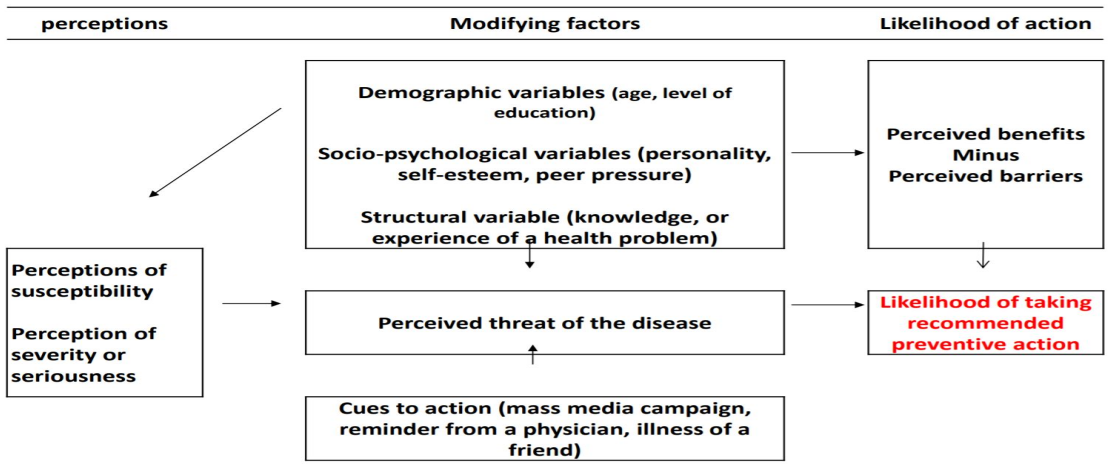
- Sensory and physical impairments
- Illiteracy
- Language
- Age
- Social, cultural, spiritual

## The value of patient education can be summarised as follows:

- Improved understanding of condition, diagnosis, disease, disability
  - Improved understanding of methods and means to manage multiple aspects of medical condition.
  - Improved self advocacy in deciding to act both independently from medical providers and in interdependence with them.
  - Increased Compliance .
  - Patient Outcomes –respond well to plan – fewer complications.
  - Informed Consent.
  - Utilization – More effective use of medical services .
  - Satisfaction and referrals .
  - Risk Management - Lower risk of malpractice when patients have realistic expectations.
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## PHASES OF THE HEALTH BELIEF MODEL



**Six main constructs:** it is important to know which is which, because you might be asked to define perceived susceptibility for example

People are ready to act if they:

1. Believe they are susceptible to the condition. (**perceived susceptibility**) (I might get covid)
2. Believe the condition has serious consequences (**perceived severity**) (if I get covid i might die)
3. Believe taking action would reduce their susceptibility to a condition or its severity (**perceived benefit**) (wearing masks might protect me)
4. Believe cost of taking action (**perceived barriers**) are outweighed by the benefits
5. Are exposed to factors that prompt action (e.g., television, reminder... etc.) (**cues to action**)
6. Are confident in their ability to successfully perform an action (**self efficacy**)

If these constructs are present in a patient and the perceived benefits are higher than the perceived barriers, they'll have a higher likelihood to act

*Is there anybody who does not know that smoking is independent risk factor for cancer?*

*So why the rate of smoking is on the increase?*

## What is Health Promotion?

Has evolved to include the educational, organizational, procedural, environmental, social, and financial supports that help individuals and groups reduce negative health behaviors and promote positive change among various population groups in a variety of settings



**Health Promotion includes ...** the doctor said it is extra

- Promoting healthy lifestyles.
- Getting people involved in their own health care.
- Creating an environment that makes it possible to live a healthy life.
- Recognition of lifestyle diseases as major causes of illness and death.
- Strengthening community participation.

**Intersectoral approach** the doctor said it is extra

Health Promotion brings together many sectors to work towards the achievement and maintenance of health and wellness.

- The Health sector alone cannot achieve a healthy society.
- All sectors, both government and non-government, need to work together.
- Health Promotion can provide the link between the various sectors.
- Within Health the various disciplines also need to work together towards wellness.

the doctor said it is extra “the whole page”

### **Some non-health sectors with an input into Health Promotion...**

- Education/ schools
- Agriculture
- Community Services
- Sport
- Media
- Non-Governmental Organizations (NGO's)
- Community groups
- Youth
- Private sector

### **Health sectors with an input into Health Promotion**

- Environmental Health
- Nutrition
- Community nursing
- Mental Health
- Dental
- Epidemiology
- Hospital (secondary) care
- School of Nursing
- Occupational therapy

### **Some other sectors which are important :**

• Legal • Public Works • Housing • Water Authority • Alternative medicine

### **Formulating healthy public policy**

- Promotes healthy policies in all sectors , eg healthy workplaces, schools, homes, buildings, villages and communities.
- Health aspect should be thought of and included in the policies of the various sectors.
- Health Policies should also emphasize the prevention and promotion.



the doctor said it is extra “the whole page”

### **Reorienting health services**

Since lifestyle is linked to many of today’s health problems, prevention and promotion should decrease the burden on secondary (curative) health care.

- Greater emphasis and resources placed on health promotion and primary health care.
- Less emphasis on purchase of high tech equipment for secondary health care.
- Equity in health care.

### **Empowering communities to achieve well-being**

- Involvement of the community in health decisions, a multisectoral and participatory approach.
- Provide communities with the information and tools to take actions to improve health and well-being.

### **Building alliances with special emphasis on the media**

- Media key players, influence on health of people.
- Partnership with media ensures their collaboration and that correct information is passed on.
- Free flow of information both ways, on matters vital to health.

### **Creating supportive environments**

- Healthy physical, social and economic environment.
- All development activities should aim for a healthy environment – healthy buildings, roads, workplaces, homes, surroundings and schools.

### **Developing /increasing personal health skills**

- Information and education for personal and family health.
- Take account of values, beliefs and customs of the community.
- Continuous process at all stages of life.
- Guided and supported in developing skills (not imposed on them).
- Build on existing knowledge and attitudes.



## Behavior Change it is not an easy task

- Can we expect people to adopt a healthy lifestyle after they have been exposed to a health promotion program?
- Can we force people to participate in sport and physical activities because we believe they are good for their health and soul?
- **No** ... Getting people to engage in health behavior change is a complex process that is very difficult even under the best of conditions.. Eg, a high proportion of the population are smokers and continue to smoke even though they know smoking is bad



## Effective Health Promotion the doctor said it is extra


### • Effective health promotion programs

- help people:
  - modify behaviors, increase skills, change attitudes, increase knowledge, influence values, and improve health decision making.
  - maintain healthy lifestyles
- Provide:
  - educational, organizational, environmental, financial, and social support
- e.g., worksite smoke cessation program

## Need for Health Promotion the doctor said it is extra

### • Physical Inactivity is a Global Problem

- In developed countries:
    - Industrialization, modern technologies, automation, and a global food market have taken away the need and opportunity for physical exertion
  - In developing countries:
    - Overcrowding, poverty, crime, traffic, low air quality, plus lack of parks, sports and recreation facilities, and sidewalks make physical activity a difficult choice
  - **Result:** 60% ~ 85% global population fails to achieve 30 minute moderate intense physical activity daily
  - Physical movement and activity are essential for the human organism to grow, develop, and maintain health.
  - Consequences of physical inactivity
    - increased levels of obesity, diabetes, cardiovascular disease (the leading cause of death in most countries)
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• Chronic diseases associated with unhealthy behaviors, such as unhealthy diets, caloric excess, inactivity, and obesity are the greatest public health problems in most countries of the world

– The increasing incidence of chronic diseases

- causing ~60% of the 56.5 million reported deaths globally
- contributing ~46% to the spread of disease worldwide
- These estimates are expected to rise to 73% and 60% respectively, by 2020

## What Has Been Done?

• **In the past three decades:**

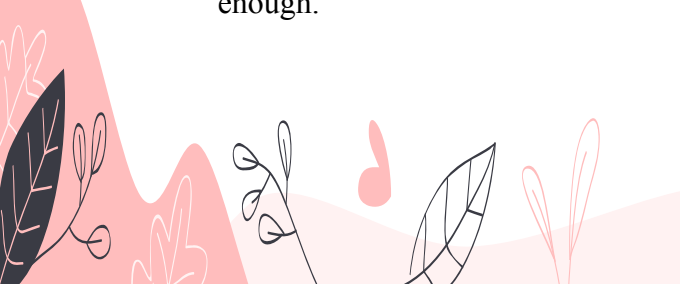

- widespread interest in good health, wellness, and health behaviors,
- recognized for its potential to improve quality of lives, longevity & adaptation healthy lifestyle,
- programs to promote good health among general population.

• **WHO Annual Global Move for Health initiative**

- to promote healthy diets and physical activity among the world population, both male and female, of all ages and conditions including disabilities worldwide.

• **WHO Global Strategy on Diet, Physical Activity and Health**

## Why aren't we effective?

- Programs not based on sound health behavior theories or outcomes assessment
  - The program planners may:
    - not have the necessary knowledge of health promotion program planning, implementation, evaluation, and
    - lack adequate training in health behavior theories.
  - Having good intentions and the knowledge in exercise and sports are not enough.
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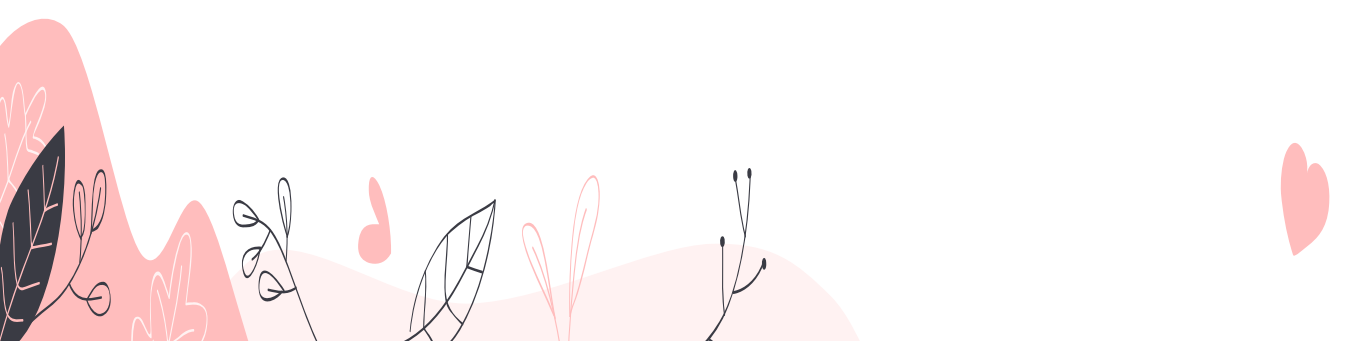
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## What can Sport do to Promote Health?

- Participation help people become more physically active and develop healthier lifestyle habits, thus reduce :
  - ❑ obesity, BP ,cholesterol
  - ❑ burden illness and premature death.
- build social bonds and social support,
- reduce feelings of depression and anxiety,
- promote psychological well-being, and
- prevent risky behaviors, especially among children and young people :
  - ❑ tobacco, alcohol or other substance abuse
  - ❑ unhealthy diet or violence
- Detailed sport plans provide procedural support for behavioral change.
- Incentives eg discounted,free gym, reduced insurance premiums for regular exercise and healthy body weight = provide financial support for behavioral change.
- Building fields, sidewalks, bike lanes, and organize events = environmental support for behavioral change.
- Participating in sport, instill the value of sport in all aspect of our lives, and involve families, friends, and coworkers = social support for behavioral change.

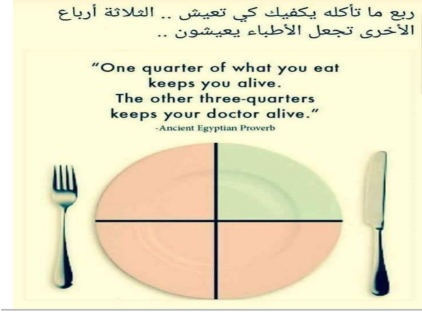
## Plan Sport Related Health Promotion Programs

### Practitioners and scholars in sport field:

- are experts in theories and skills of sports,
  - have a desire to help people live a healthier life, and
  - already possess the basic program planning and implementation skills.
- 

## How Do We Change Culture?

- In some culture, “plump” used to be a sign of health and wealth.
- In the Middle East, “round” is seen as successful.
- Some Africans view “heavy” women as a sign of having rich husbands?



measures which promote good health and prevent or delay the onset of diseases or their complications **is anticipatory care?**

**This care aims to:**

- Improve the quality of life
- Reduce the premature disability
- Increased life expectancy



**The optimum setting for anticipatory care is Primary Health Care/Family medicine/GP. TM Frequent contacts.**

TM Defined population.

TM Primary-care team.

TM Dr.-Pt. relationship.

TM Holistic approach.

دليل السعرات الحرارية لخفض الوزن  
حساب السعرات الحرارية  
السعرات الحرارية في الوجبات الغذائية





# QUESTIONS

1. You have diagnosed a 42-year-old patient with hypertension. He is 5 ft 9 in tall, weighs 230 lb, and admits to poor eating habits, drinking 4 alcoholic beverages daily, and no regular exercise. Which of the following lifestyle modifications, if instituted, will result in the largest systolic blood pressure reduction?

- a. Moderate alcohol consumption to no more than 2 drinks daily.
- b. Engage in physical activity for 30 minutes per day, most days of the week.
- c. Reduce dietary sodium intake to no more than 100 mEq/L per day.
- d. Adopt a DASH eating plan (a diet rich in fruits, vegetables, and low-fat dairy products with a reduced saturated and total fat content).
- e. Lose 10 lb.

2. You are caring for a 41-year-old male patient with high risk for heart disease. His dietary habits are increasing his risks, and you would like to work with him to develop healthier eating habits. Assuming he is in the “precontemplation” stage, what should your action be to move him toward changing his behavior?

- a. Educate him about the impact of diet on heart disease risk.
- b. Outline the costs of his behaviors and contrast those to the benefits of healthy eating.
- c. Show him the gap between his health goals and his current behavior.
- d. Brainstorm options for healthier eating with the patient.
- e. Assist him in developing a concrete action plan for behavior change.

Answers:

1. e

2. a

