Elements of Prevention PHE

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OBJECTIVES

By the end of this lecture the audience should know what is:

- Prevention and define levels of Prevention
- The objectives of screening and the elements that constitute a useful screening test
- The role and the importance of Periodic Health Examination (PHE) in primary care
- The Preventive services given by MOH in Jordan

Phenomenon of health

World Health Organization:

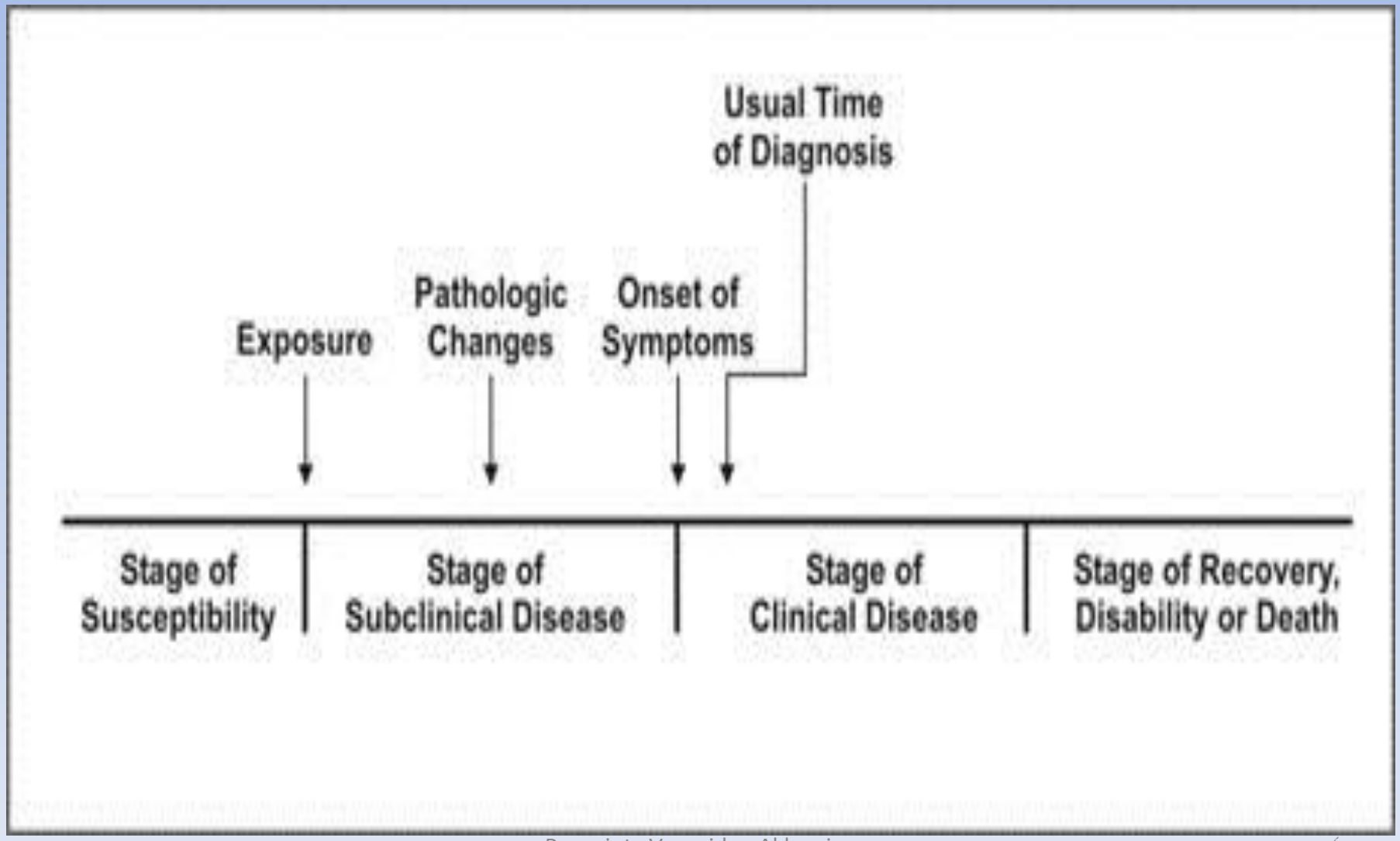
> "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"

Signed on ٢٢ July ١٩٤٦ by the representatives of ٦١ States (and entered into force on ٧ April ١٩٤٨

The Definition has not been amended since ١٩٤٨.

The **Declaration of Alma-Ata** ٦-١٢ September ١٩٧٨.[1] reaffirms the WHO definition of health.

Phenomenon of disease: natural history



The goals of medicine

The **goals of medicine** are to promote health, to preserve health, to restore health when it is impaired and to minimize suffering and distress.

These goals are embodied in the word **“prevention”.**

WHAT IS PREVENTION?

- Prevention includes actions aimed at **eradicating, eliminating** or **minimizing** the impact of disease and disability, or if none of these are feasible, **retarding** the progress of the disease and disability.

Goals of Prevention

- The goal of preventive medicine is to protect, promote, and maintain health and well-being and prevent disease, disability, and premature death.

- Goal of prevention is to help people live longer or have better quality of life, NOT merely to detect disease early

- A second—but critical—criterion that must be met before
- incorporating prevention into clinical practice is that there must
- be an effective and safe intervention that improves outcomes.

Determinants of Prevention

- Successful prevention depends upon:
  - a knowledge of causation,
  - dynamics of transmission,
  - identification of risk factors and risk groups,
  - availability of prophylactic or early detection and treatment measures,
  - an organization for applying these measures to appropriate persons or groups, and
  - continuous evaluation of and development of procedures applied

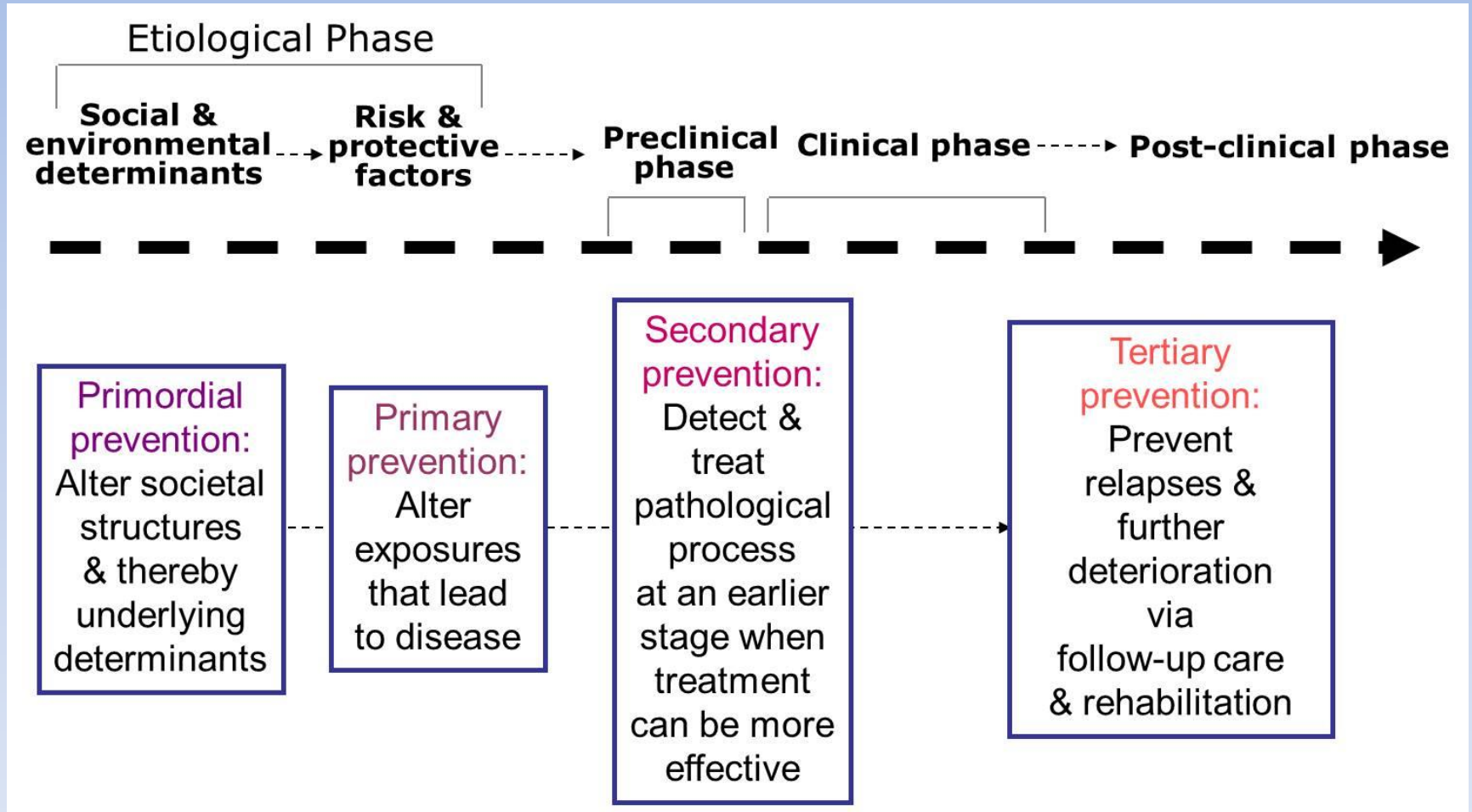
Levels of Prevention

١. **Primordial prevention(**prevent the penetration of risk factors into populations)

٢. **Primary** (prevent the disease)

٣. **Secondary**(early detection and treatment)

٤. **Tertiary prevention** (treat and minimize)


Etiological Phase
Social & environmental determinants
Risk & protective factors
Preclinical phase
Clinical phase
Post-clinical phase
Primordial prevention: Alter societal structures & thereby underlying determinants
Primary prevention: Alter exposures that lead to disease
Secondary prevention: Detect & treat pathological process at an earlier stage when treatment can be more effective
Tertiary prevention: Prevent relapses & further deterioration via follow-up care & rehabilitation

Primordial prevention is:

is a relatively new concept, which seeks ways to "**avoid the emergence and establishment of the social, economic and cultural patterns of living that are known to contribute to an elevated risk of disease**"

.

Activities that prevent the penetration of risk factors into populations.

Primary prevention

- Primary prevention signifies **intervention in the pre-pathogenesis phase** of a disease or health problem,
- The goal is **to reduce** the **incidence** of disease.
- It includes the concept of **"positive health",** a concept that encourages achievement and maintenance of "**an acceptable level of health that will enable every individual to lead a socially and economically productive life**".

Primary prevention

Primary prevention may be accomplished by measures of

- **Health promotion** -
- **Specific protection**

A successful primary prevention program requires that we know at least one modifiable risk factor, and have a way to modify it.

Health promotion

- **Health promotion** has been defined by the World Health Organization's (WHO) ٢٠٠٥ Bangkok Charter for Health Promotion in a Globalized World as

- "The process of enabling people to increase control over their health and its determinants, and thereby improve their health"
- **Health promotion goal is behavior change.**

Health behavior

- Health behavior is defined as the activity undertaken by individuals for the purpose of maintaining or enhancing their health, preventing health problems or achieving a positive body image.

Illness behavior

- Illness behavior is the activity undertaken by a person who feels ill for the purpose of defining that illness and seeking relief from it.

Health promotion

- Aim **Health promotion** to educate patients about behavioral patterns or environmental exposures that pose risks for future disease to and help them adopt a healthy lifestyle
- Health care professionals should convinced their clients that a healthy lifestyle is in the interest of them and they are responsible to encourage as many people as possible to adopt a healthy lifestyle

Health promotion elements

- **B**iological factors and Behavioral Factors
- **E**nvironmental factors
- **I**mmunologic factors
- **N**utritional factors
- **G**enetic factors
- **S**ervices, Social factors, and Spiritual factors

[JF Jekel, Epidemiology, Biostatistics, and Preventive Medicine, ١٩٩٦]

Levels of Behavior Change

A **Individual:** knowledge, attitudes, beliefs, personality.

B **Interpersonal:** family, friends, peers.

C **Community:** social networks, standards, norms .

D **Institutional:** rules, policies, informal structures.

E **Public Policy:** local policies related to healthy practices.

Source: Adapted from National Cancer Institute, *Theory at a Glance: A Guide for Health Promotion* (٢٠٠٣), available online at http://cancer.gov.

Health Promotion Tools

- Mass media
- Social marketing
- Community mobilization
- Health education
- Client-provider interactions
- Policy communication

Source: Robert Hornik and Emile McAnany, “Mass Media and Fertility Change,” in *Diffusion Processes and Fertility Transition: Selected Perspectives*, ed. John Casterline (Washington, DC: National Academies Press, ٢٠٠١): ٢٠٨-٣٩.

Principles of Health Promotion

- Health promotion is primarily a societal and political venture and not medical service, brings together many sectors to work towards the achievement and maintenance of health and wellness.
- Health professionals have an important role in advocating and enabling health promotion.

Specific protection

It refers to specific measures taken to prevent the occurrence of disease. These measures include:

- Interventions to protect environment
- Immunization
- Chemoprophylaxis-Use of specific nutrient
- Protection of occupational hazards ..
- Protection from cancer producing agents
- Legistation

Secondary prevention

Secondary prevention attempts to detect early disease , unrecognized disease and treating it before irreversible pathological changes take place. Some times is referred as ”Early disease detection”

This includes,

١. **Screening**
٢. **Case finding**

- Screening is central to secondary prevention because it is the process by which otherwise unrecognized disease or defects are identified by tests that can be applied rapidly and on a **large scale**.
- Screening tests distinguish apparently healthy people from those who probably have the disease.

The goals of secondary prevention

- The primary purpose of screening- Case finding is to detect early disease or risk factors for disease in large numbers of apparently healthy individuals.

- To prevent the onset of disease or the development of advanced disease in those persons with a pre-clinical form of the target disease through early detection and treatment

Screening

١. **“The presumptive identification** of unrecognized disease or defect by the application of tests, examinations, or other procedures which can be applied rapidly TO ASYMPTOMATIC INDIVIDUALS, in large scale
٢. Screening tests sort out apparently well persons who probably have a disease from those who probably do not.
٣. **A screening test is not intended to be diagnostic.**

- **The objective of a diagnostic test** is to determine whether someone with signs or symptoms of a disease actually has it.
- **The objective of a screening test** is to classify the person receiving it as being likely or being very unlikely to have the disease. If the classification is “likely”, then a diagnostic evaluation will be conducted. If the classification is “unlikely”, then the process stops there.

Case-finding

Case-finding:

١. Refers to special **clinical efforts** to recognize disease among persons who consult a health professional

٢. Is a strategy for targeting resources at individuals or groups who are suspected to be at risk for a particular disease.

٣. Case-finding is a technique well suited to public primary health care departments.

Objectives of Screening

- **Immediate objective:** to classify people as being likely or unlikely of having the disease

- **Ultimate objective:** to reduce mortality and morbidity by identifying modifiable risk factors and early signs of treatable disease

Types of screening

- Mass
- Targeted
- Multiple or Multiphase
- Case-finding or opportunistic

Requirements for a Good screening Program

The Wilson-Jungner Criteria. Public Health Paper ١٩٦٨, Geneva, WHO

١. Suitable disease

٢. Suitable test

٣. Suitable program

٤. Good use of resources

١. Suitable disease

١. Common
٢. Important
٣. Diagnosable
٤. Treatable - better outcomes if treatment begins before clinical diagnosis
٥. Detectable before symptoms appear,have a latent interval
٦. An accepted and established treatment or intervention for individuals identified as having the disease

٢. Suitable test

١. Detect disease during pre-symptomatic phase

٢. Safe

٣. Easy to interpret

٤. Accurate

٥. Acceptable,

٦. Cost-effective

SCREENING TEST SHOULD BE:

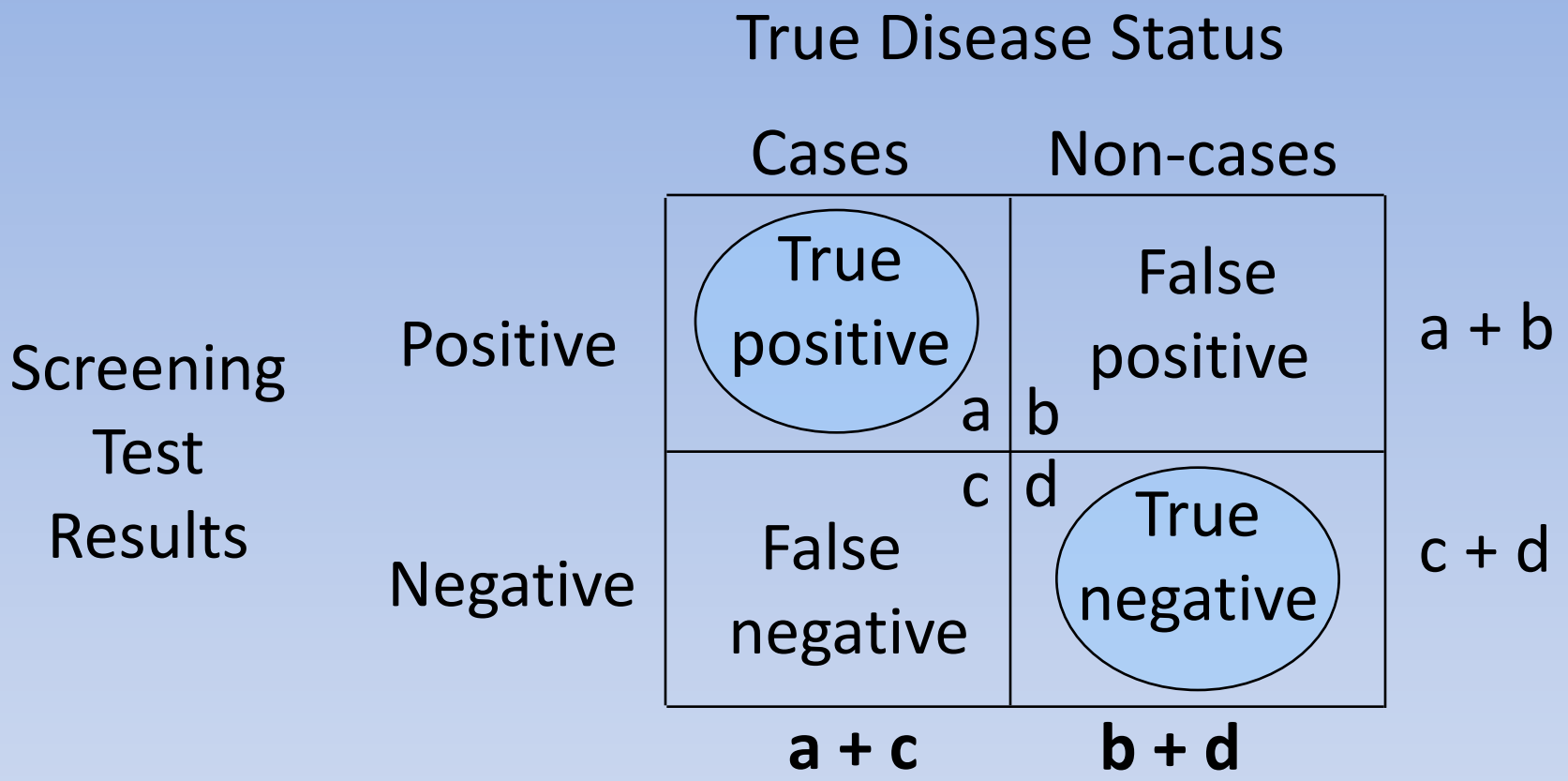
- Reliable – get same result each time

- Valid – get the correct result
  ١. Sensitive – correctly classify cases
  ٢. Specific– correctly classify non-cases

CALCULATING THE RATES-

How good is the test?

		Disease	
		+	-
Test	+	TP	FP
	-	FN	TN



Sensitivity = $\frac{\text{True positives}}{\text{All cases}} = \frac{a}{a + c}$

Specificity = $\frac{\text{True negatives}}{\text{All non-cases}} = \frac{d}{b + d}$

Positive predictive value

- The PPV of a test is a proportion that is useful to clinicians since it answers the question: ‘How likely is it that this patient has the disease given that the test result is positive?’

$$\text{Positive predictive value} = \frac{\text{True positives}}{\text{True positives} + \text{False positives}}$$

Negative predictive value

- The NPV of a test answers the question: ‘How likely is it that this patient does not have the disease given that the test result is negative?

$$\text{Negative predictive value} = \frac{\text{True negatives}}{\text{True negatives} + \text{False negatives}}$$

Likelihood ratio

- A final term sometimes used with reference to the utility of tests is the likelihood ratio. This is defined as how much more likely is it that a patient who tests positive has the disease compared with one who tests negative.

$$\text{Likelihood ratio} = \frac{\text{Sensitivity}}{1 - \text{Specificity}}$$

- The ability of a test to classify as positive those persons with the disease is termed **"sensitivity“**
- A test with high sensitivity **if Negative RULES OUT**

- The ability of a test to classify as negative those persons without the disease is termed **"specificity“**
- A test with high specificity **if Positive RULES IN**

٣. Suitable program

- Reaches appropriate target population
- Quality control of testing
- Good follow-up of positives
- Efficient

٤. Good use of resources

- Cost of screening tests
- Cost of follow-up diagnostic tests
- Cost of treatment
- Benefits versus alternatives

- An important criterion that must be met before incorporating prevention into clinical practice is that there must be an effective and safe intervention that improves outcomes.

- There should be an accepted and established treatment or intervention for individuals identified as having the disease or pre-disease condition and facilities for treatment should be available.

Ethics of medical care

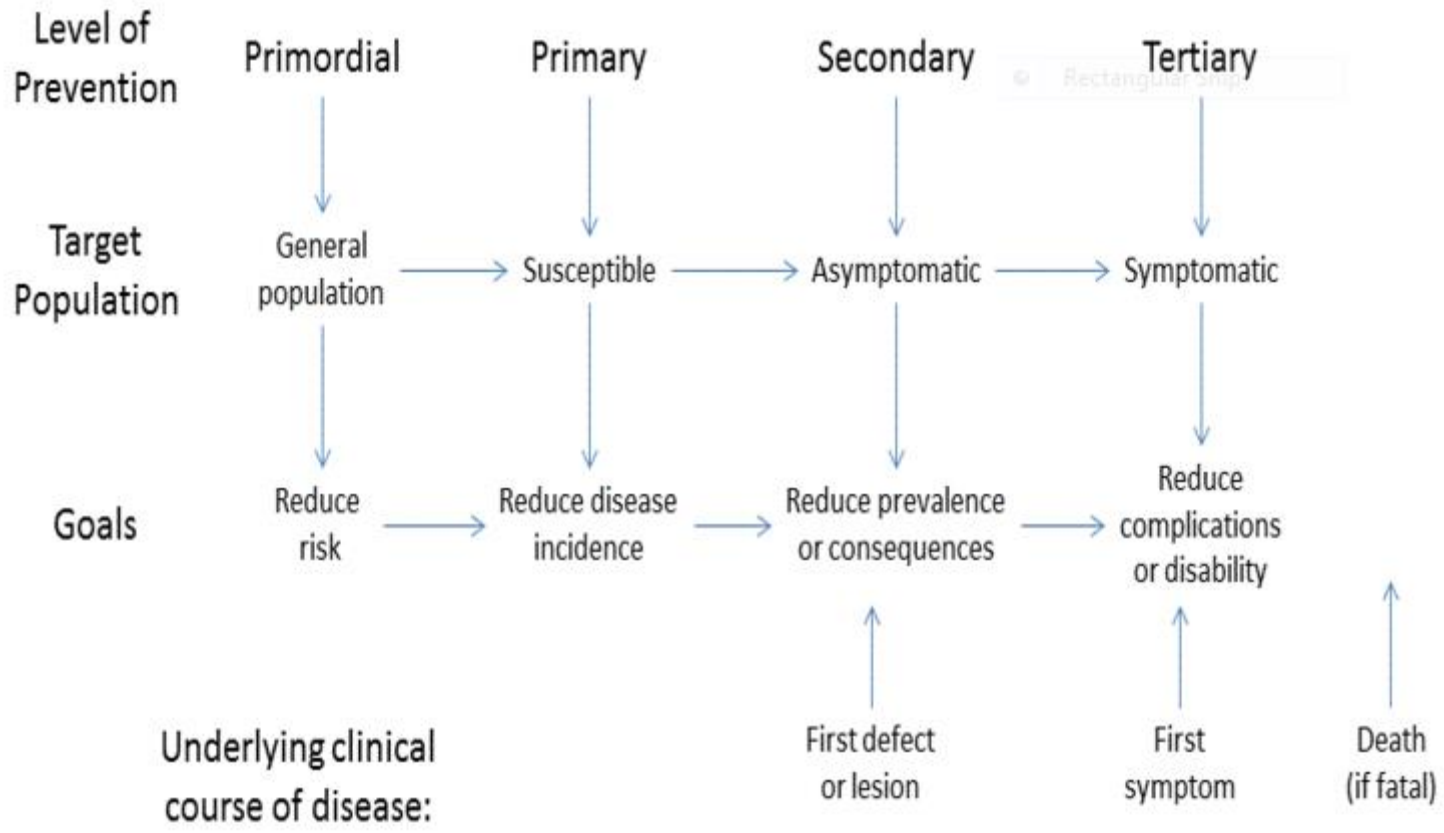
Remember the basic ethical principles:

- Autonomy
- Non-maleficence
- Beneficence
- Justice

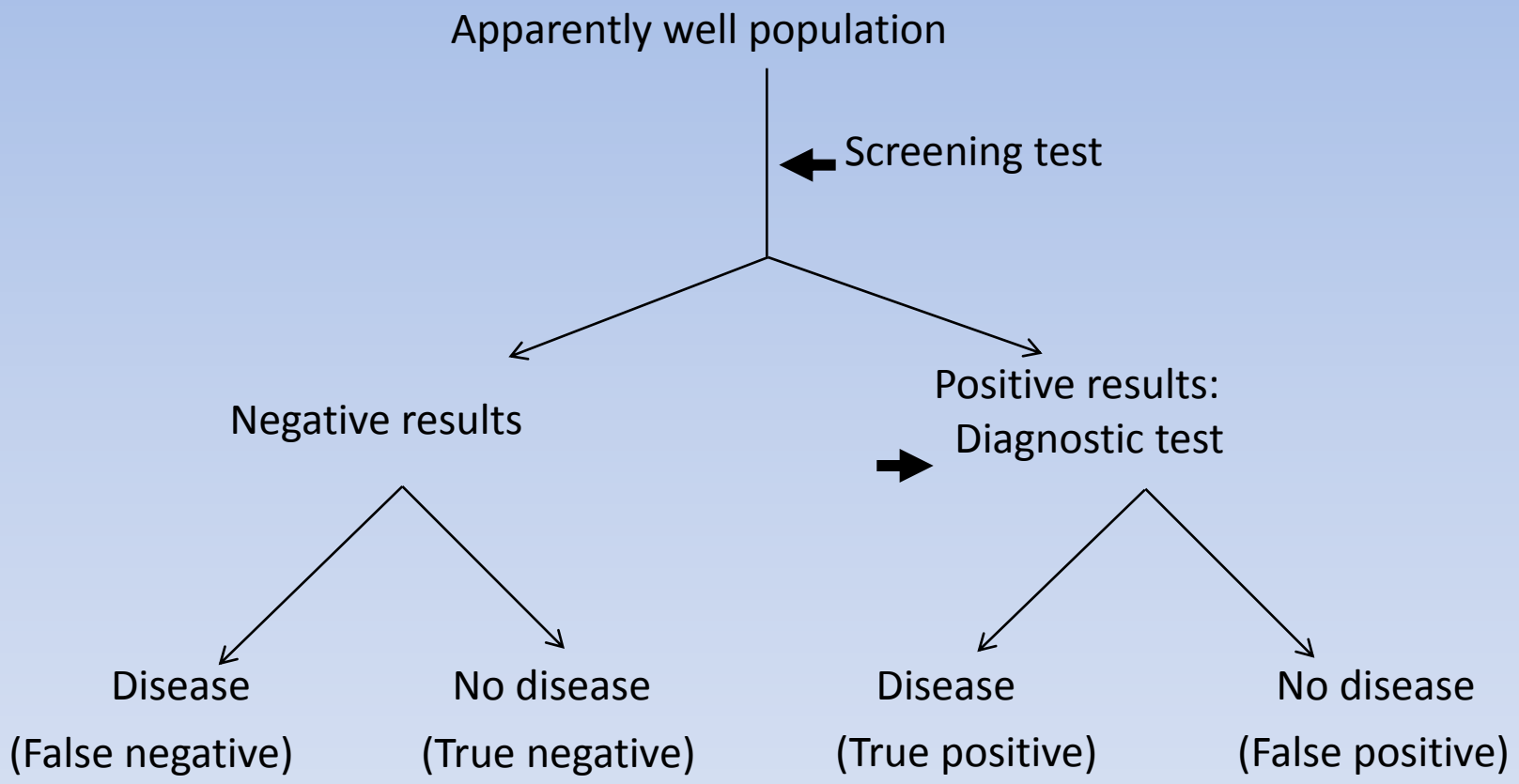
Ethics in screening

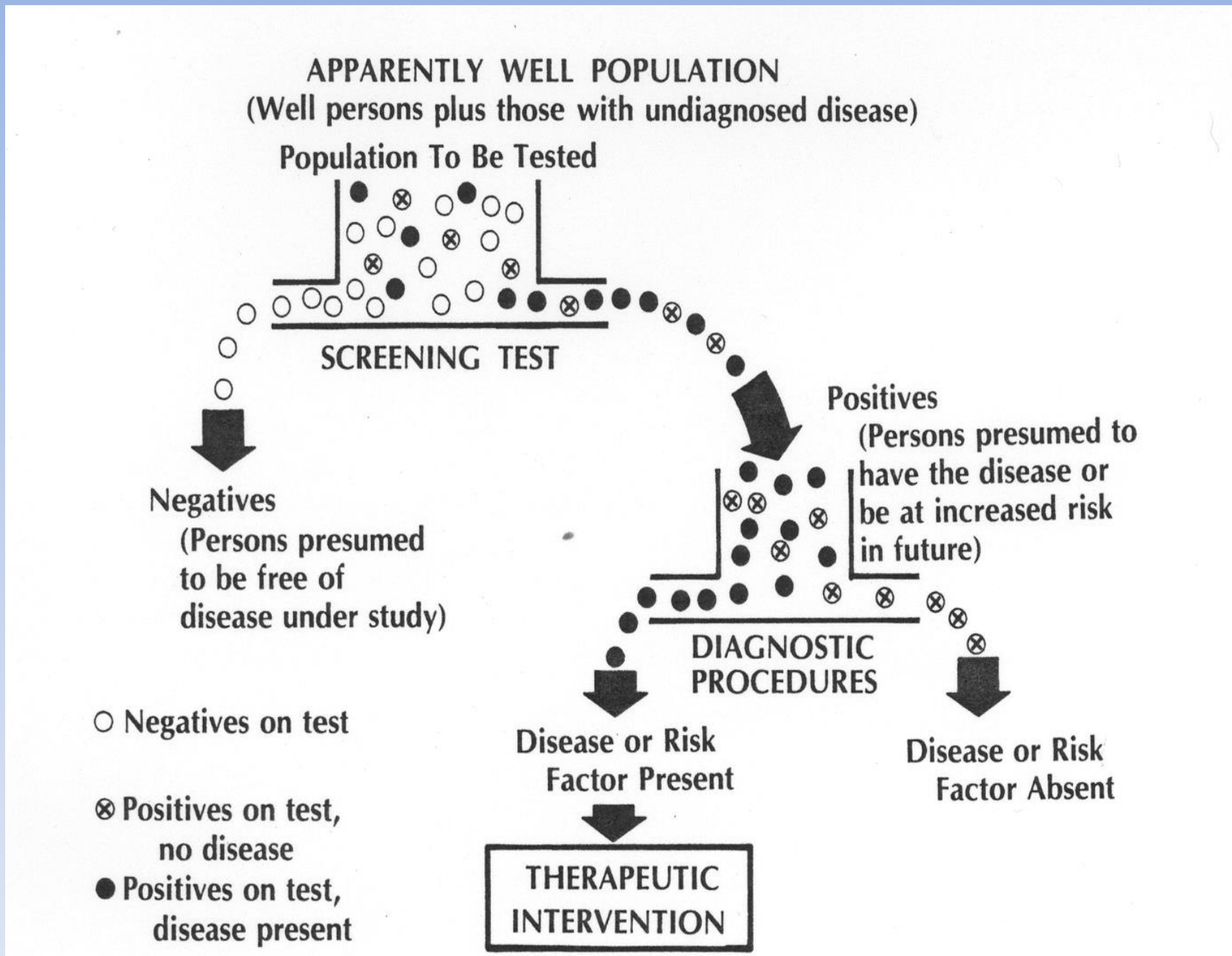
- Informed consent obtained?
- Implications of positive result?
- Number and implications of false positives?
- Ditto for false negatives?
- Labeling and stigmatization

A Classification of Preventive Strategies



Logic of screening




APPARENTLY WELL POPULATION
(Well persons plus those with undiagnosed disease)
Population To Be Tested
SCREENING TEST
Negatives
(Persons presumed to be free of disease under study)
Positives
(Persons presumed to have the disease or be at increased risk in future)
DIAGNOSTIC PROCEDURES
Disease or Risk Factor Present
Disease or Risk Factor Absent
THERAPEUTIC INTERVENTION
○ Negatives on test
⊗ Positives on test, no disease
● Positives on test, disease present

Tertiary prevention

- It is defined as:

"all the measures available to reduce or limit impairments and disabilities, and to promote the patients' adjustment to irremediable conditions."

- It includes all efforts intended to improve both the health outcomes of people with a diagnosed disease and preventing further morbidity from that condition.

GOALS OF TERTIARY PREVENTION

Goals of tertiary prevention are :
Disability limitation, and rehabilitation.

It is used when the disease process has advanced beyond its early stages.

Summary

- The goal of preventive medicine is to protect, promote, andmaintain health and well-being and prevent disease, disability, and premature death.
- Prevention has traditionally been divided into three different categories designated **primary**, **secondary**, and **tertiary** prevention

Summary

- Effectiveness of a prevention activity should be demonstrated before implementing it widely in clinical practice.
- Most prevention interventions also have the potential for causing harm.


THANKS

PERIODIC HEALTH EXAMINATION

OBJECTIVES

At the end of this presentation the participants will be :

- Able to describe the role of PHE in primary care
- Able to explain the effective screening criteria used in PHE
- Aware of the risks in PHE
- Aware of the importance of PHE and preventive medicine in primary care.

- In many ways, the family physician is the most
- ideally placed of all physicians to recommend preventive care to his or her patients, given the continuous relationships over time that are developed with patients and families.

Periodic Health Examination

Evaluation of **apparently health** individuals in certain time periods, of their life using a number of standard procedures such as counseling, physical examination laboratory investigations or imaging with the **purpose to find those probably diseased.**

Periodicity is determined by the age and risk factors of each patient.

Periodic Health Examination is rational strategy for prevention in family practice

Purpose of the periodic health

- The purpose of the periodic health examination is to evaluate health status, screen for risk factors and disease, and provide preventive counseling interventions in an age-appropriate manner.

Goal of the periodic health

- Goal of PHE is to prevent the onset of disease
- Educate patients about behavioral patterns or environmental exposures that pose risks for future diseases.

U.S. Preventive Services Task Force Grade of recommends Definitions

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service
I Statement	I Statement The USPSTF concludes that the current evidence is insufficient to assess the	clinical considerations section of USPSTF Recommendation

- http://www.uspreventiveservicestaskforce.org/uspstf/grades.htm

AN APPROACH TO APPLYING PREVENTIVE CARE IN CLINICAL PRACTICE

R isk assessment-Parents to be Assessment

I mmunizations

S creening

E ducation Health promotion- Counseling

Preconception care

- **Preconception care** are services that allow women of reproductive to maintain optimal health for themselves, to choose the number and spacing of their pregnancies and, when desired, to prepare for a healthy baby.
- **Preconception care** can be used to maximize the expectant parents' health, safety, and well-being before conception, and to maximize fetal health

- Several of the medical conditions, personal behaviors, psychosocial risks, and environmental exposures associated with negative pregnancy outcomes can be identified and modified before conception through clinical interventions

Recommendations for Preconception Care

- **Target:** Every woman of reproductive age who is capable of becoming pregnant is a candidate for preconception care, regardless of whether she is planning to conceive

- **Goal :** To identify and modify biomedical, behavioral & social risks through preventive and management interventions

Risk assessment

- Nutrition
- General Health
- Smoking
- Occupational Risks
- Substance abuse
- STDs-HIV
- Toxins and teratogenic agents

Immunizations

- Women of childbearing age in Jordan should be immune to measles, mumps, rubella,, tetanus, diptheria, and poliomyelitis through childhood immunizations
- If immunity is determined to be lacking, proper immunization should be provided
- Need for immunizations is determined according to age group of women and occupational or lifestyle risks

Screening **Preconception Care**

- **Genetic diseases**
- **Non Communicable Diseases**
- The risk for genetic disorders is increased in several ethnic groups and certain heritable genetic diseases are best diagnosed in individuals before becoming pregnant .

ß-Thalassemia In Jordan

- Jordanian Ministry of Health has introduced a national obligatory premarital screening for ß-Thalassemia, in ٢٠٠٧. Once the couple undergo the screening, they are offered genetic counseling, explaining the results of the screen and the available options (especially in cases where both individuals might be carriers for ß-thalassemia).

Education Health promotion

- Education of both men and women about:
- **identified risks** (such as alcohol consumption, smoking, prescription and over-the-counter teratogenic drug use.
- **healthy behaviors** (such as reproductive life planning, folic acid consumption, and proper nutrition) and healthy weight maintenance…)
- about the **availability of vaccines** to protect their infants from the consequences of infections that affect the mother (such as rubella, varicela)
- **genetic counseling**

Issues that can be covered in a preconception care

- Folic acid supplementation
- Rubella testing, vac. If necessary
- Maximizing chronic illness care. (DM, HT, Anemia, hypothyroidism…….)
- Improving health habits.(Tobacco, alcohol, and illicit substance use….)
- Review current medications and assess safety (accutane, coumadin, some anticonvulsants, …)
- Minimizing occupational risks.

Categorization of Drug Safety Classifications in Pregnancy and Lactation

Food and Drug Administration Categories on Potential Fetal Risk

Class	Description	Examples
A	Controlled human studies show no fetal risk in first trimester; no evidence of risk in later pregnancy; fetal harm remote	
B	Animal studies show no risk/there are no controlled studies in pregnant women; or animal studies show adverse affect not confirmed in first trimester human studies; no evidence of risk in later trimesters	Acetaminophen, diphenhydramine, azithromycin, cephalosporins, penicillin, low molecular weight heparin, bupropion, methyldopa, loratadine, metoclopramide, sucralfate, H2 antagonists
C	Use only when benefit outweighs risk; animal studies with teratogenic or embryocidal effects and no controlled human studies available; or no research available	Tramadol, ibuprofen*, ketorolac, trimethoprim, clarithromycin, heparin, amitriptyline, venlafaxine, calcium channel blockers, clonidine, albuterol, promethazine, disulfiram, ethosuximide, gabapentin, lamotrigine, vancomycin
D	Documented human fetal risk; use only if benefit is clearly acceptable despite risk; no safer alternatives available	Most benzodiazepines, sulfonamides (third trimester), tetracyclines, most anticonvulsants, ACE inhibitors, ARBs, lithium, nicotine patches, spray and inhalers
X	Contraindicated in women who are or may become pregnant; fetal risk/known abnormalities in humans	Warfarin flurazepam, temazepam, HMG-CoA reductase inhibitors, isotretinoin, oral contraceptives, methotrexate, Cytotec, ergotamines

Components of Preconception Care

- Medical history
- Psychosocial issues
- Physical exam
- Laboratory tests
- Family history
- Nutrition assessment

Definition of Antenatal care

Comprehensive health supervision and guidance given to the pregnant woman from conception till the time of labor

- **R** isk Factors
- **I** mmunizations
- **S** creening
- **E** ducation - Counselir

Goals of Antenatal care

- To reduce maternal and perinatal mortality and morbidity rates

- To improve the physical and mental health of women and babies

All women should be advised to attend in early pregnancy with a view to:

- ١. Confirming pregnancy and establishing an estimated date of delivery
- ٢. A comprehensive clinical assessment in order to determine any clinical conditions that may be of relevance to the pregnancy; with a view to planning the management of these conditions;
- ٣. Obtaining general advice regarding common issues of concern in early pregnancy.

Antenatal Care-Risk Assessment

- Nutrition
- General Health
- Smoking
- Occupational Risks
- Substance abuse
- STDs-HIV
- Toxins and teratogenic agents

Antenatal Care-Screening

Screening for:

- haematological conditions, Anaemia
- Blood grouping and red-cell alloantibodie
- fetal anomalies, fetal growth and well-being
- Down's syndrome
- Infections,(Asymptomatic bacteriuria, Asymptomatic bacterial vaginosis)
- Clinical conditions (Gestational diabetes Pre eclampsia)
- Prediction, detection and initial management of mental disorders

Schedule for Antenatal Visits:

The first visit or initial visit should be made as early is pregnancy as possible.

<u>Return Visits:</u>

- Once every month till ٧th month.
- Once every ٢ weeks till the ٩th month
- Once every week during the ٩th month, till labor.

FIRST ANTENATAL VISIT IN PREGNANCY

١. Confirming pregnancy and establishing an estimated date of confinement

٢. A comprehensive clinical assessment in order to determine any clinical conditions that may be of relevance to the pregnancy.including mental disorders.

٣. Obtaining general advice regarding common issues of concern in early pregnancy.

٥. Determine immune status.

Initial routine investigations for each pregnancy at first antenatal visit

١. Full blood picture
٢. Blood group and atypical antibody screen
٣. Syphilis serology
٤. Rubella titer
٥. Hepatitis B surface antigen, Hepatitis C antibodies
٦. HIV antibodies
٧. Blood sugar level - oral glucose tolerance test (OGTT) ADA Guidelines
٨. Midstream urine
٩. Early dating ultrasound if dates uncertain

Standard antenatal check

- Obstetric assessment
- Smoking history
- BP check
- measurement in Fundal height in centimetres
- fetal auscultation from ٢٠ weeks
- fetal presentation from ٣٠ weeks
- inspection of legs for oedema

- **The USPSTF recommends screening for asymptomatic bacteriuria with urine culture for** pregnant women **at ١٢ to ١٦ weeks' gestation or at the first prenatal visit, if later.**
  Grade: A Recommendation

- **The USPSTF recommends routine screening for iron deficiency anemia in asymptomatic** pregnant women**.**
  Grade: B Recommendation

- he USPSTF recommends screening for gestational diabetes mellitus in asymptomatic pregnant women after ٢٤ weeks of gestation.(OGTT)
- Grade: B recommendation

Ultrasound

Ultrasound at ١٨ to ٢٠ weeks' gestation is standard of care in many localities. Current evidence, however, fails to correlate routine ultrasound screening in pregnancy with improved outcomes, including perinatal mortality

Indications for Ultrasound During Pregnancy

- Estimation of gestational age Unsure datesSize/dates discrepancy
- Vaginal bleeding
- Evaluation of fetal growth
- Evaluation for placentation/multiple gestation pregnan
- Suspected ectopic pregnancy ,hydatidiform mole polyhydramnios or oligohydramnios.
- Fetal anomaly assessment
- History of previous fetal anomaly/congenital defects Planned scheduled elective repeat cesarean delivery
- Planned induction or elective termination of pregnancy

Screening for foetal anomalies First-trimester

- **Serum markers** available for first-trimester Down syndrome screening include -**HCG** and pregnancy-associated plasma protein A (**PAPP-A**).
- **Nuchal translucency** (NT) of the fetal neck using ultrasound is often combined with -HCG and PAPP-A for first trimester Down syndrome screening (called first trimester combined test).
- the 'combined test' between ١١ weeks ٠ days and ١٣ weeks ٦ days

Screening for foetal anomalies First-trimester

- Women with an abnormal first-trimester genetic screening can be offered by:
- **chorionic villus sampling** (CVS) between ١٠ and ١٢ weeks' gestation or
- **amniocentesis** between ١٥ and ٢٠ weeks' gestation.

Screening for foetal anomalies Second and Third Trimester

- Second trimester genetic screening includes maternal serum
- tests and amniocentesis.
- The quadruple screen is replacing the triple screen as recommended second trimester screening.
- Thequadruple test combines the serum markers of maternal serum

١. alpha-fetoprotein (MSAFP),
٢. estriol (uE٣),
٣. HCG, and
٤. inhibin A.

Second and Third Trimester Prenatal Care

- Weight assessment.
- Blood pressure measurement
- Fundal height measurement. In the second or third trimester,
- Auscultation of the fetal heart rate (FHR).
- Review current medications and assess safety. Use of all prescription and over-the-counter drugs, herbal supplements,

Screening for and Diagnosis of GDM

- Perform a ٧٥-g OGTT, with plasma glucose measurement fasting and at ١ and ٢ h, at ٢٤–٢٨ weeks of gestation in women not previously diagnosed with overt diabetes
- Perform OGTT in the morning after an overnight fast of at least ٨ h
- GDM diagnosis: when any of the following plasma glucose values are exceeded
  - Fasting ≥٩٢ mg/dL (٥,١ mmol/L)
  - ١ h ≥١٨٠ mg/dL (١٠,٠ mmol/L)
  - ٢ h ≥١٥٣ mg/dL (٨,٥ mmol/L)

ADA. III. Detection and Diagnosis of GDM. *Diabetes Care* ٢٠١٣;٣٦(suppl ١):S١٥; Table ٦.

E ducation - Counseling

- **Physiological changes during pregnancy**
- **Weight gain**
- **Fresh air and sunshine**
- **Rest and sleep**
- **Diet**
- **Daily activities**
- **Exercises and relaxation**
- **Hygiene**
- **Teeth**
- **Bladder and bowel**
- **Sexual counseling**

- **Smoking :**
- **Medications**
- **Infection-**avoid contact with infectious diseases especially rubella
- **Irradiation-** avoid exposure to x-ray or irradiation
- **Occupational and environmental hazards**
- **Travel**
- **Follow up**
- **Minor discomforts**
- **Signs of Potential Complications**

Postpartum Care
Key Elements for Baby

SIX TO ١٢ HOURS POSTPARTUM	THREE TO SIX DAYS POSTPARTUM	SIX WEEKS POSTPARTUM	SIX MONTHS POSTPARTUM
•Breathing •Warmth •Feeding •Umbilical cord care •Immunization	•Feeding •Infections •Routine tests	•Weight and feeding •Immunization	Development Weaning

Postpartum Care
Key Elements for Mother

SIX TO ١٢ HOURS POSTPARTUM	THREE TO SIX DAYS POSTPARTUM	SIX WEEKS POSTPARTUM	SIX MONTHS POSTPARTUM
Blood loss Pain Blood pressure Advice Warning signs	Breast care Fever Infection Lochia Mood	Recovery Anemia Contraception Libido	General health Contraception Continuing morbidity contraception

Newborn

- Birth to one month

Infancy

- Three months to one year

Toddlerhood

- One to three years

Preschool age

Three to five years

School age

- Five to ten years
- Adolescence ten-sixteen

Well baby clinic -Clinical Preventive Services for Normal Risk Children

Well-baby clinics, or well-child clinics as they are commonly known, deal with the **total well-being** of children under the age of ٦ y .

Well-child clinics provide an array of diagnostic and preventative services

One of the important services offered by well-baby clinics is the provision of immunizations for childhood disease

Growth and Development

Growth refers to an increase in physical size of the whole body or any of its parts.

It is a **quantitative** change in the child′s body. It can be measured

Development refers to a progressive increase in skill and capacity of function.

It is a **qualitative** change in the child′s functioning

Principles of Growth & Development

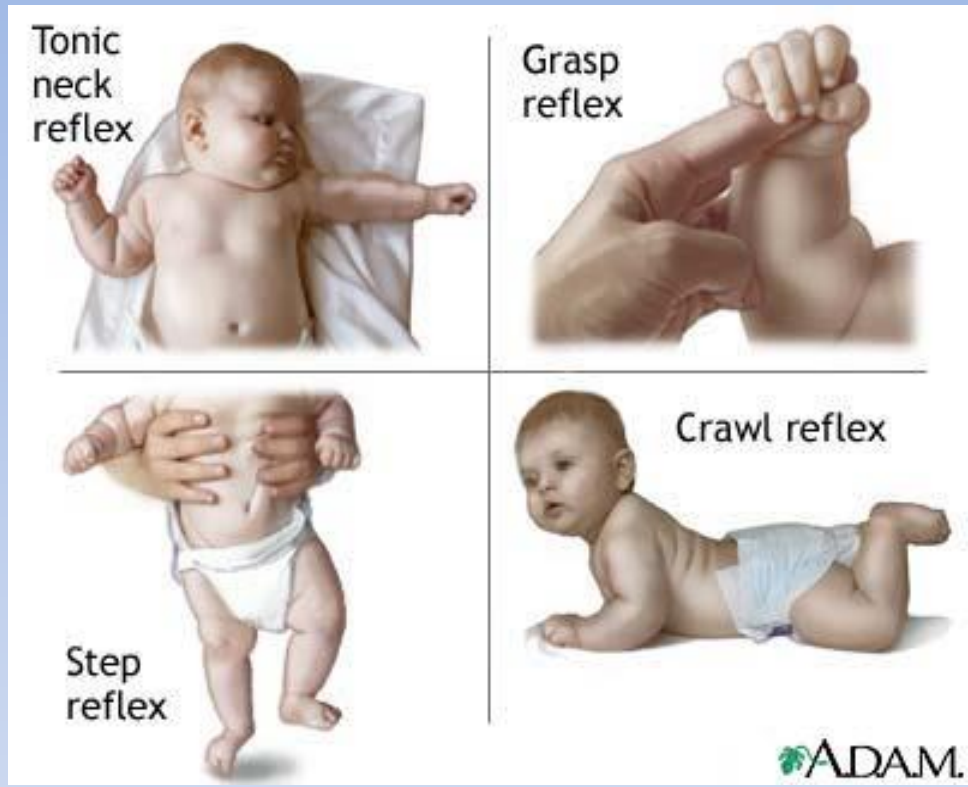
- Continuous process
- Occurs in an orderly and predictable sequence
- Development is Directional but **Individualized**
- Development is interrelated
- Development becomes increasingly differentiated.
- Development becomes increasingly integrated and complex
- Not all body parts grow progress in the same rate at the same time.
- **Each child grows in his/her own unique way.**
- **Each stage of G&D is affected by the preceding types of development.**

Types of Development

- **Physical** – growth in the body's size and **ability**
- **Intellectual /Language**– maturing of the mind
- **Emotional/Social** – expression of feelings and relationships with others

WELL-CHILD CARE FOR EARLY CHILDHOOD (AGES ٠ TO ٢ YEARS)

Primitive - Neonatal reflexes



Babinski reflex

Rooting and sucking

Methods to Evaluate Growth

١. Measure the baby's **weight.**

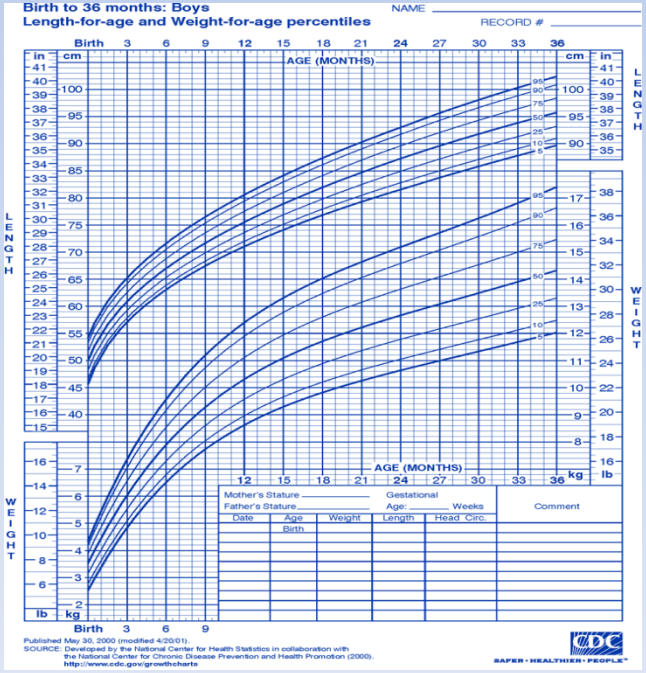
٢. Measure the **length** of the baby**.**

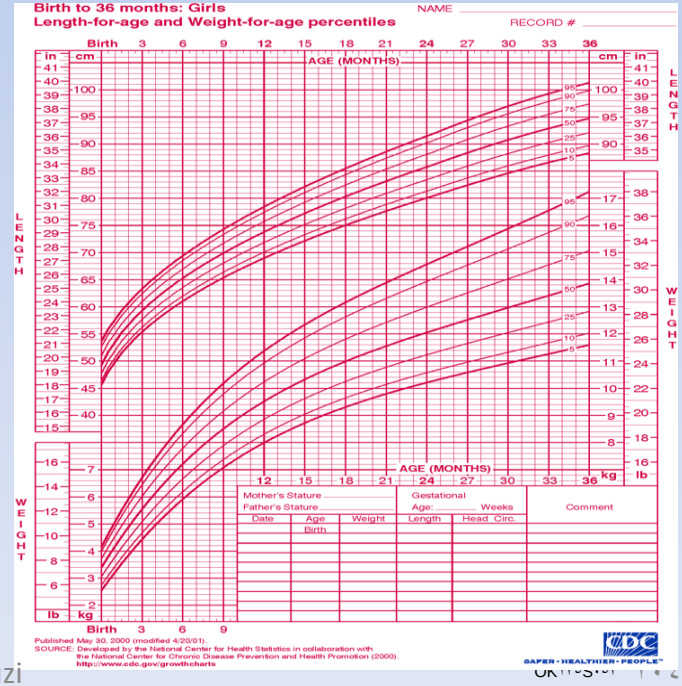
٣. Measure the baby's **head circumference**

٤. **.Height** when standing

As babies grow at different rates, there is a huge variety between them. Because of that, we use growth charts as a guide.

All growth charts are rated in percentiles which cover the variations of 'normal' - and most babies fall between the ٥th and ٩٧th percentile bands which are all normal.

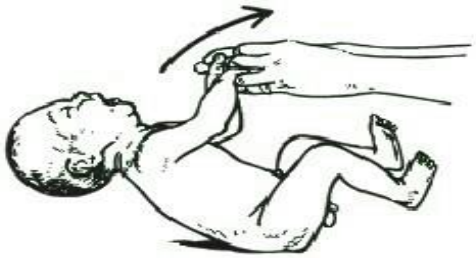




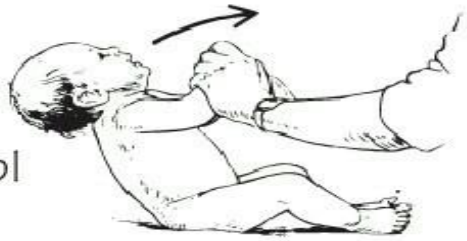
Developmental Milestones

Pull to sit

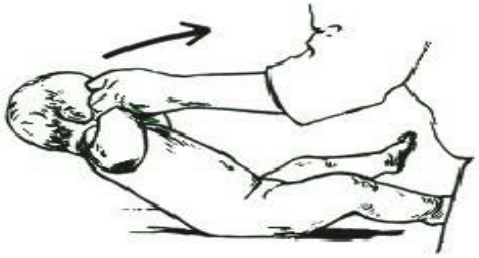
Birth
Complete head lag



6 weeks
Head control developing



4 months
No head lag



Sitting

6 weeks
Curved back, needs support from adult

6–7 months
Sits with self-propping

9 months
Gets into sitting position alone

Sits with support

Prone position

Birth
Generally flexed posture

6 weeks
Pelvis flatter

4 months
Lifts head and shoulders with weight on forearms

6 months
Arms extended supporting chest off couch

Standing and walking

6 months
Stands with support

10 months
Pulls to standing and stands holding on

12 months
Stands, and walks with one hand held

15 month
Walks independently and stoops to pick up objects

Fine motor development

Grasping and reaching

4 months
Holds a rattle and shakes purposefully

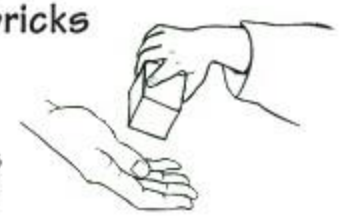
5 months
Reaches for object

6 months
Transfers object from hand to hand

7 months
Finger feeds

Building bricks

12 months
Gives bricks to examiner



15 months
Builds a tower of two cubes

18 months
Builds a tower of three to four cubes

Manipulation

5 months
Whole hand grasp

9 months
Immature pincer grasp

10 months
Points at bead

Pencil skills

18 months
Scribbles with a pencil

3 years
Draws a circle

4 years
Draws a cross

Palmar grasp
٦ -٨months.

Pincer grasp

٨-١٠ months.

Speech and language development

Speech

3 months
Vocalizes

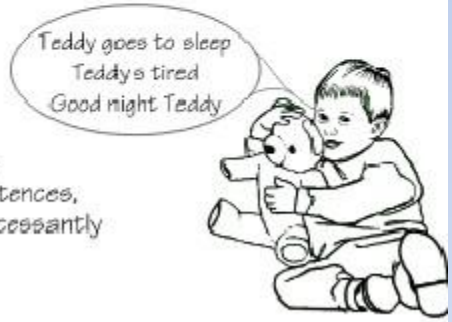
8 months
Double babble

12 months
Two or three words with meaning

18 months
10 words

24 months
Linking two words

3 years
Full sentences, talks incessantly



Social development

6 weeks
Smiles responsively

16 weeks
Laughing out loud

7 months
Stranger anxiety

9 months
Peek a boo, waves bye bye

15 months
Drinks from a cup

18 months
Spoon-feeding self

About 2½ years
(very variable)
Toilet trained by day

3 years
Dresses self
(except buttons)


A

Important developmental Physical milestones for children

- **٤ to ٥ months**: Rolls over to supine position
- Sits with support
- **٦ months**: Sits without support
- **٩ months**: Stands with support .Gets to a sitting position.Creeps and crawls, pulls to stand, waves bye-bye
- **١٠ months**: Stands alone momentarily .Pincer grasp
- **١٢ months**: Walks alone.

- **١٥ months***:* Creeps up stairs, builds two-block towers, walks independently
- **١٨ months***:* Walks up one step at a time with hand held or railing, Kicks large ball forward after demonstration
- **٢٤ months***:* Jumps,, removes coat, verbalizes wants .
- .

Important developmental Intellectual /Language Milestones

- ٨-٩ months babbles: mama/dada as sounds
- ١٠-١٢ months: “mama/dada specific Says ٢-٣ words besides "mama" and "dada
- ١٨-٢٠ months: ٢٠ to ٣٠ words – ٥٠% understood by strangers
- ٢٢-٢٤ months: **two word sentences**, >٥٠ words, ٧٥% understood by strangers

- **Impairments in hearing can relate to delayed development. Therefore, the first step in the evaluation of a child with language delay is hearing assessment**

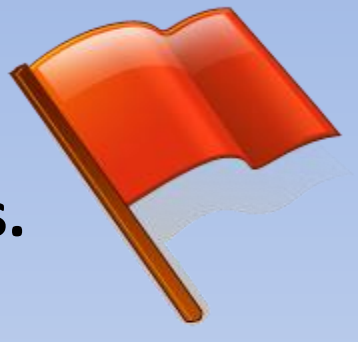
Developmental Emotional milestones

- ٠-٦ **Months** His emotions are instable, where it is rapidly changes from crying to laughter.
- ٦ **Months-**fear for strangers
- **By** ١٠ **months**, he expresses several beginning recognizable emotions, such as anger, sadness, pleasure, jealousy, anxiety and affection.
- **By** ١٢ **months** of age, these emotions are clearly distinguishable.

Red Flags in infant development

- Unable to sit alone by age ٩ months
- Unable to transfer objects from hand to hand by age ١ year
- Abnormal pincer grip or grasp by age ١٥ months
- Unable to walk alone by ١٨ months
- Losing skills she has had in the past.
- seems to strongly favor one half of his body
- is stiff and rigid.

Red flags for a speech or language delay



- **No babbling by ٩ months.**
- **No first words by ١٥ months.**
- **not saying “mama” or “dada” at ١٨ months.**
- **Less than ٢٥ words at age ٢,**
- **Parents not understanding child's speech at ٢٤ months of age;**
- **No word combinations by ٢٤ months** less than ٢٠٠ words at age ٣.
- Strangers having problems understanding child's speech by ٣٦ months of age.
- Not showing an interest in communicating.
- not using three and four word sentences ,Not speaking clearly or well by age ٣.

Developmental milestones
٢-٦ years

- **٣ years***:* Copies circle; gives full name, age, and gender; throws ball overhand
- **٤ years***:* Hops on one foot, dresses with little assistance, shoes on the correct feet
- **٥ years***:* Ties shoes, prints first name, plays competitive games

Well-child visits

- Frequency of visits: (١٥)
  - seven visits in first year (including visits at time of vaccination)
  - Two visits each year from ٢-٦ years

- **Every infant has a health card kept in the PHCC containing the personal information**

PREVENTIVE HEALTH CARE SCHEDULE

- ٢-٣ days after birth
- By ١ month (although experienced parents can wait until ٢ months)
- ٢ months
- ٣ months
- ٥ months
- ٩ months
- ١ year
- ١٨ months
- ٢ years
- ٣ years
- ٤ years
- ٥ years
- ٦ years

Immunizations

- • Immunizations are one of the most effective prevention strategies ever introduced; family physicians need to be prepared to address patient and parental concerns regarding vaccine safety and reasons for immunizing.

Jordan National Vaccination Program

age	vaccination
١ month	BCG
٢ months	DTaP, Hib, HBV, IPV
٣ months	DTaP, Hib, HBV, IPV /OPV
٤ months	DTaP, Hib, HBV, IPV/OPV
٩ months	Measles, OPV
١٢ months	MMR
١٨ months	Booster DTP, polio OPV.MMR
٤-٦yr - school entry	MMR, OPV.Td
١٥-١٦ yr - ١٠th grade	Td.chek MMR

Well-Baby ١st visit Jordan

- **Baby's measurements** Head circumference Height and weight Complete l Physical exam
- **Newborn screening** for Hypothyroidism – G٦PD
- BCG Vaccine

Subsequent visits

- Growth –weight-height head circumference
- Developmental-Milestones screening
- Follow up of any diagnosed chronic disease

Screening for hearing Impairment

- The USPSTF recommends screening for **hearing loss** in all newborn infants (B)otoacoustic emissions (OAEs) followed by auditory brainstem response (ABR) in those who failed the first test

Screening for Visual Impairment

Visual Impairment Screening ٠ to ٥ years
Screen all children at least once between ages ٣-٥ years to detect amblyopia

- CONGENITAL HEART DISEASE

Congenital heart disease . Although not specifically evaluated by the USPSTF as a screening test, most clinicians advise auscultation of the heart and palpation of pulses (including femoral pulses) to detect asymptomatic septal defects and aortic coarctation, respectively.

- ANEMIA (HIGH-RISK ONLY)

Screening for and treating milder iron deficiency anemia remains more controversial.

Screening for DDH

- Screening with clinical examination or ultrasound can identify newborns at increased risk for DDH, but due to the high rate of spontaneous resolution of neonatal hip instability and dysplasia and the lack of evidence of the effectiveness of intervention on functional outcomes, the net benefits of screening are not clear.

Education/Counseling for Children

- BREASTFEEDING AND NUTRITION
- SIDS
- CAR SEATS
- BOWEL HABITS
- SLEEP ISSUE

Recommendations for Children and Adolescents

- Install smoke detectors
- Use flame-retardant sleepwear
- Set hot water heaters below ١٢٥ºF
- Use childproof containers for medication
- Use approved bicycle helmets
- Store firearms safely
- Supplement fluoride if inadequate in water
- Visit dentist regularly
- Brush teeth and floss regularly
- Eliminate exposure to passive smoking
- Use child safety seats, lap/shoulder belts
- Limit intake of dietary fat and portion size
- Limit television time
- Engage in regular physical exercise

WELL-CHILD CARE FOR MIDDLE CHILDHOOD (AGES ٢ TO ١١ YEARS)

- Risk Assessment
- Immunizations
- Screening
- Education/Counseling
- WEIGHT

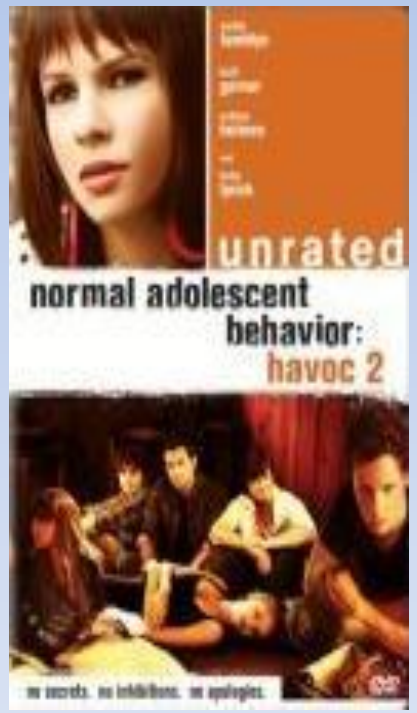
- SEXUAL DEVELOPMENT
- WEIGHT
- VISION

SCREENING HEALTHY CHILDREN FOR DISEASE

- Only children with dietary risk factors need to be screened for iron-deficiency anemia.
- All children should be screened at about ٩ months and again at ٢٤ months of age for lead poisoning.
- Evidence does not support a recommendation for routine urinalysis.
- Children older than ٢ years who have a family history of early heart disease or a parent with high total cholesterol should receive cholesterol screening.
- Tuberculosis screening is recommended for high-risk children only.

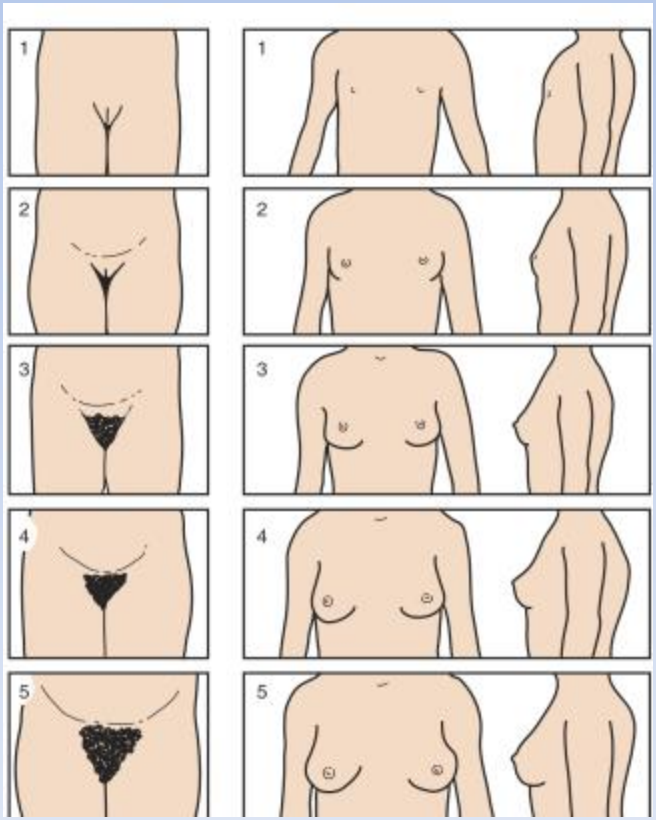
Adolescent behavioral problems That should be adressed

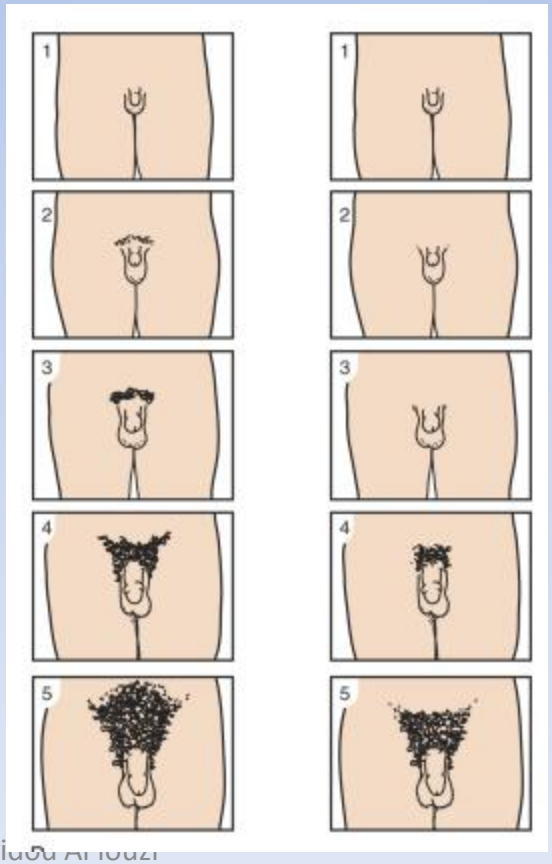
- Eating Disorders Anorexia nervosa ,Bulimia
- Attention deficit
- Anger issues
- Suicide
- Homicides and Violence
- Dangerous Driving
- Dangerous sex behaviors



Sexual maturity rating for boys and girls

In addition to providing information regarding physiologic changes, the sexual maturity rating at the time of a visit can be used to help the adolescent with his or her concerns about normal development





Risk Factors

- Risky driving, accidents
- Risky sexual behavior
- Violence Homicides
- Substance Abuse
- (Alcohol, Tobacco, Drugs)
- Depression-Suicide
- Eating Disorders

Immunizations

According to the National Immunizations Program

- Grade ١ - OPV and Td
- Grade ١٠ -Td and MMR
- Influenza Yearly for those who have Risk Factors

Preventive services given in Jordan ٦-١٢ years

- Physical Examination including
- Weight and height BP
- Vision Evaluation
- Dental examination:
- Grade ١-Grade -Grade -Grade ١٠

Screening

- Alcohol
- Tobacco
- Substance Abuse
- Depression-Suicide
- Eating Disorders
- Sexually transmitted diseases

Human papilloma virus (HPV) vaccine

- The **human papilloma virus** (**HPV**) **vaccine** prevents infection with certain species of humanpapiloma virus associated with the development of **cervical cancer, genital warts** and **HPV induced oral cancers**
- **Vaccination** has the potential to reduce cervical cancer deaths around the world, it is preventative and does not treat HPV infection or cervical cancer.
- **Recommended** for ٩ - ٢٥ years, ٢٢- ٢٦years old males who have not been exposed to HPV

Vaccine target populations

- Gardasil and Cervarix are preventative vaccines and do not treat HPV infection or cervical cancer.
- They are recommended for women who are ٩ to ٢٥ years old who have not been exposed to HPV.
- Quadrivalent HPV vaccine “Gardasil” may be given to ٢٢- through ٢٦-year-old males

Counseling parents

It is recommended that physicians provide guidance to parents on

•Normal physical, sexual, and emotional development,
• Signs of physical and emotional problems,
•Parenting behaviors to promote health,
•Methods to help their child avoid harmful behaviors.

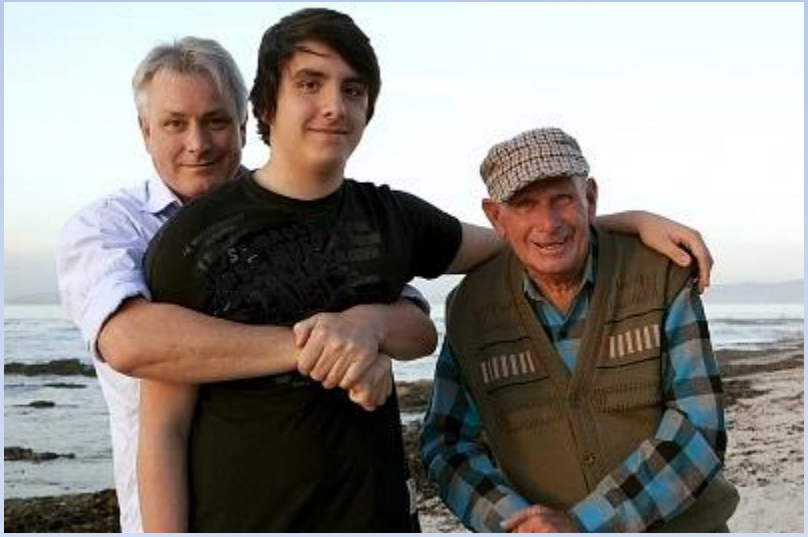
,

Counseling adolescent

- The adolescent patient should receive counseling annually
- on their **growth and development**,
- **injury prevention,**
- **healthy diet, obesity exercise,**
- avoidance of harmful substances (**alcohol, tobacco, drugs, anabolic steroids**).
- responsible sexual behaviors, including **abstinence and contraception**,

Well adult clinic

Clinical Preventive Services for Normal-Risk Women and Men.The U.S. Preventive Services Task Force (USPSTF) strongly recommends



Non-communicable disease

- **“Noncommunicable disease”** is a relatively new term NCDs are distinguished by their non-infectious cause.
- The reason we say **"noncommunicable disease"** in global health right now is because some of the communicable conditions became chronic.

The ٤ Deadliest Diseases

- **Cardiovascular disease**
- **Diabetes**
- **Chronic respiratory diseases.**
- **Cancers**

٦٠% of all deaths are caused by these ٤ conditions

٨٠% of these deaths are happening in lower- and middle-income countries

These ٤ diseases are really responsible for the global disease burden

They do have ٤ **common risk factors** that are easily modifiable with lifestyle changes

- Tobacco
- Alcohol
- Diets
- Exercise

When we do this, we pretty much prevent all ٤ which is a convenient catch-all.

Interventions

There are ٢ kinds of interventions:

١. **Population-wide**, which is public health measures, and they're as simple as tobacco control, alcohol control, healthy diet, and physical exercise;

٢. **Individual-level** interventions that, for physicians, translate basically as medical care, from general counseling to giving multidrug therapy -**PHE**

Chemoprophylaxis -Aspirin

Recommendation Summary

Summary of Recommendations and Evidence

Population	Recommendation	Grade (What's This?)
Men, Age 45-79	The USPSTF recommends the use of aspirin for men age 45 to 79 years when the potential benefit due to a reduction in myocardial infarctions outweighs the potential harm due to an increase in gastrointestinal hemorrhage. See the Clinical Considerations section for discussion of benefits and harms.	A
Women, Age 55-79	The USPSTF recommends the use of aspirin for women age 55 to 79 years when the potential benefit of a reduction in ischemic strokes outweighs the potential harm of an increase in gastrointestinal hemorrhage. See the Clinical Considerations section for discussion of benefits and harms.	A
Men and Women, 80 Years and Older	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of aspirin for cardiovascular disease prevention in men and women 80 years or older. See the Clinical Considerations section for suggestions for practice regarding the I statement.	I
Women Younger than 55 (Stroke), Men Younger than 45 (MI)	The USPSTF recommends against the use of aspirin for stroke prevention in women younger than 55 years and for myocardial infarction prevention in men younger than 45 years.	D

Go to the Clinical Considerations section for suggestions for practice when the evidence is insufficient.

Return to Table of Contents

Screening for Hypertension

Archived: Recommendation Summary

Summary of Recommendations

Population	Recommendation	Grade (What's This?)
Adults	The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults 18 and over.	A

Criteria for Testing for Diabetes in Asymptomatic Adult Individuals

١. Testing should be considered in all adults who are overweight (BMI ≥٢٥ kg/m٢*) and have additional risk factors:

- Physical inactivity
- First-degree relative with diabetes
- High-risk race/ethnicity (e.g., African American, Latino, Native American, Asian American, Pacific Islander)
- Women who delivered a baby weighing >٩ lb or were diagnosed with GDM
- Hypertension (≥١٤٠/٩٠ mmHg or on therapy for hypertension)
- HDL cholesterol level <٣٥ mg/dL (٠,٩٠ mmol/L) and/or a triglyceride level >٢٥٠ mg/dL (٢,٨٢ mmol/L)
- Women with polycystic ovary syndrome (PCOS)
- A١C ≥٥,٧%, IGT, or IFG on previous testing
- Other clinical conditions associated with insulin resistance (e.g., severe obesity, acanthosis nigricans)
- History of CVD

In the absence of criteria (risk testing diabetes should begin at age ٤٥ years

Screening for Dyslipidemia

Recommendation Summary

Summary of Recommendations - Screening Men

Population	Recommendation	Grade (What's This?)
Men 35 and Older	The USPSTF strongly recommends screening men aged 35 and older for lipid disorders.	A
Men 20-35 at Increased Risk for CHD	The USPSTF recommends screening men aged 20-35 for lipid disorders if they are at increased risk for coronary heart disease.	B

Summary of Recommendations - Screening Women at Increased Risk

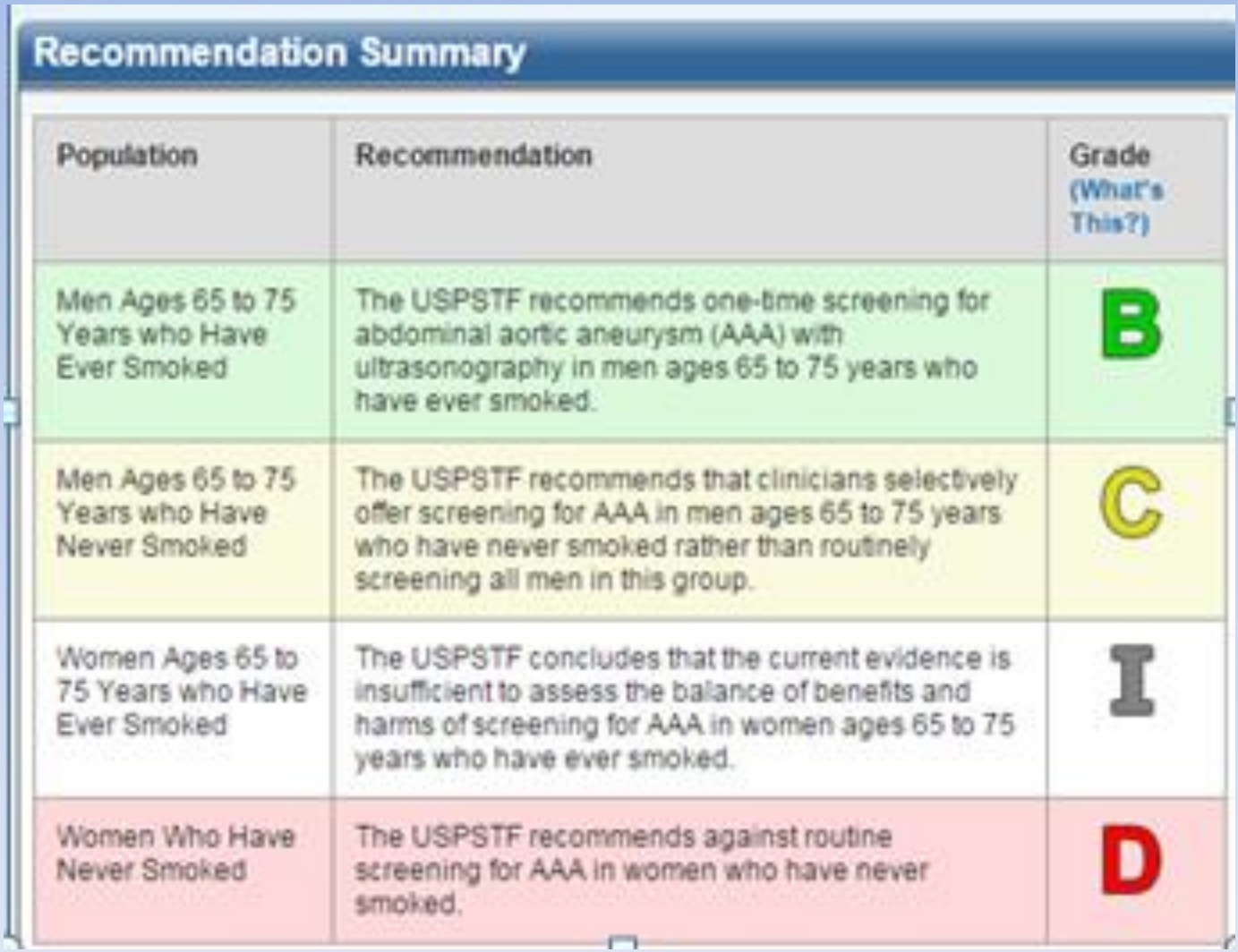
Population	Recommendation	Grade (What's This?)
Women 45 and Older at Increased Risk for CHD	The USPSTF strongly recommends screening women aged 45 and older for lipid disorders if they are at increased risk for coronary heart disease.	A
Women 20-45 at Increased Risk for CHD	The USPSTF recommends screening women aged 20-45 for lipid disorders if they are at increased risk for coronary heart disease.	B

Screening for Osteoporosis

Recommendation Summary

Population	Recommendation	Grade (What's This?)
Women, 65 and Older	The USPSTF recommends screening for osteoporosis in women aged 65 years and older and in younger women whose fracture risk is equal to or greater than that of a 65-year old white women who has no additional risk factors.	B
Men	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for osteoporosis in men.	I

Screening for Abdominal Aortic Aneurism



Recommendation Summary

Population	Recommendation	Grade (What's This?)
Men Ages 65 to 75 Years who Have Ever Smoked	The USPSTF recommends one-time screening for abdominal aortic aneurysm (AAA) with ultrasonography in men ages 65 to 75 years who have ever smoked.	B
Men Ages 65 to 75 Years who Have Never Smoked	The USPSTF recommends that clinicians selectively offer screening for AAA in men ages 65 to 75 years who have never smoked rather than routinely screening all men in this group.	C
Women Ages 65 to 75 Years who Have Ever Smoked	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for AAA in women ages 65 to 75 years who have ever smoked.	I
Women Who Have Never Smoked	The USPSTF recommends against routine screening for AAA in women who have never smoked.	D

Screening for Lung Cancer

Lung Cancer: Screening

Release Date: December 2013

Recommendation Summary

Summary of Recommendation and Evidence

Population	Recommendation	Grade (What's This?)
Adults Aged 55-80, with a History of Smoking	The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.	B

Early Detection of Breast Cancer

Population	Recommendation	Grade (What's This?)
Women, Age 50-74 Years	The USPSTF recommends biennial screening mammography for women 50-74 years.	B
Women, Before the Age of 50 Years	The decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take patient context into account, including the patient's values regarding specific benefits and harms.	C
Women, 75 Years and Older	The USPSTF concludes that the current evidence is insufficient to assess the benefits and harms of screening mammography in women 75 years and older. Go to the Clinical Considerations section for information on risk assessment and suggestions for practice regarding the I statement.	I
All Women	The USPSTF recommends against *teaching* breast self-examination (BSE).	D
Women, 40 Years and Older	The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of clinical breast examination (CBE) beyond screening mammography in women 40 years or older. Go to the Clinical Considerations section for information on risk assessment and suggestions for practice regarding the I statement.	I
All Women	The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of either digital mammography or magnetic resonance imaging (MRI) instead of film mammography as screening modalities for breast cancer. Go to the Clinical Considerations section for information on risk assessment and suggestions for practice regarding the I statement.	I

Screening for Colon and rectal cancer

Recommendation Summary

Summary of Recommendations

Population	Recommendation	Grade (What's This?)
Adults, beginning at age 50 years and continuing until age 75 years	The USPSTF recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults, beginning at age 50 years and continuing until age 75 years. The risks and benefits of these screening methods vary.	A
Adults age 76 to 85 years	The USPSTF recommends against routine screening for colorectal cancer in adults 76 to 85 years of age. There may be considerations that support colorectal cancer screening in an individual patient.	C
Adults older than age 85 years	The USPSTF recommends against screening for colorectal cancer in adults older than age 85 years.	D
Computed Tomographic Colonography and Fecal DNA testing as screening modalities	The USPSTF concludes that the evidence is insufficient to assess the benefits and harms of computed tomographic colonography and fecal DNA testing as screening modalities for colorectal cancer.	I

Screening for Cervical cancer

Summary of Recommendations and Evidence

Population	Recommendation	Grade (What's This?)
Women 21 to 65 (Pap Smear) or 30-65 (in combo with HPV testing)	The USPSTF recommends screening for cervical cancer in women age 21 to 65 years with cytology (Pap smear) every 3 years or, for women age 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology and human papillomavirus (HPV) testing every 5 years. See the Clinical Considerations for discussion of cytology method, HPV testing, and screening interval.	A
Women younger than 30 years, HPV testing	The USPSTF recommends against screening for cervical cancer with HPV testing, alone or in combination with cytology, in women younger than age 30 years.	D
Women younger than 21	The USPSTF recommends against screening for cervical cancer in women younger than age 21 years.	D
Women Older than 65, who have had adequate prior screening	The USPSTF recommends against screening for cervical cancer in women older than age 65 years who have had adequate prior screening and are not otherwise at high risk for cervical cancer. See the Clinical Considerations for discussion of adequacy of prior screening and risk factors.	D
Women who have had a hysterectomy	The USPSTF recommends against screening for cervical cancer in women who have had a hysterectomy with removal of the cervix and who do not have a history of a high-grade precancerous lesion (cervical intraepithelial neoplasia [CIN] grade 2 or 3) or cervical cancer.	D

Screening for Prostate cancer

Recommendation Summary

Population	Recommendation	Grade (What's This?)
Men, Screening with PSA	The U.S. Preventive Services Task Force (USPSTF) recommends against prostate-specific antigen (PSA)-based screening for prostate cancer.	D

Immunization Schedule for Older Adults[a]

Vaccine (Recommending Group)	Schedule
Influenza (ACIP, ACP)	• Revaccinate annually
Pneumococcal (ACIP, ACP)	• Vaccinate those aged ≥65 years • Revaccinate persons ≥65 years not vaccinated within 5 years (and <65 years at vaccination time)
Varicella zoster (ACIP, ACP)	• Vaccinate those aged ≥60 years regardless of prior episode of herpes zoster • Duration of vaccine protection is unknown
Tetanus, diphtheria, pertussis (Tdap) (ACIP, ACP)	• Vaccinate those aged ≥65 years who have not previously received Tdap, regardless of the interval since last tetanus and diphtheria (Td) vaccination • Revaccinate every 10 years • Revaccinate if patient presents with dirty wound and the last booster was >5 years • Administer Tdap if patient has close contact with infants <12 months or if not previously vaccinated

Abbreviations: ACIP, Advisory Committee on Immunization Practices; ACP, American College of Physicians.

[a] *Contains information from references 12-16.*

Patient education

- **Patient education** is the process by which health professionals and others impart information to **patients** and their caregivers that will alter their health behaviors or improve their health status.

Educating Patients

- Smoking Cessation
- Education On Abuse Of Alcohol And other Drugs
- Promoting Dental And Oral Health
- Unintentional Injury Prevention
- Domestic Violence Prevention
- Nutrition Education
- Physical Activity Education
- STDS, HIV
- Unintended Pregnancy Prevention
- Skin Cancer Prevention

Summary

All things considered, health is too important to neglect any measure to stay and become healthy. We can only overcome diseases with a bundle of measures:

- prevention,
- Screening,
- immunization,
- treatment
- research.

Prevention is a useful weapon in this battle but not the only one.

THANKS

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