Ministry of Higher Education and Scientific Research

Al-Furat Al-Awsat Technical University

College of Health and Medical Technologies / Kufa

Department of Community Health Technologies

Fourth Stage

الحقيبة التعليمية لمادة خدمات صحة المجتمع للعام الدراسي 2024-2025

Course Details

Course Title	Community Health Services
Category	Community Health Services
Academic Year	Fourth Year
Weekly Hours	1 hour "Theory"
	5 hours practical
Units	1 Unit
Teaching Language	English
The lecturer	Zahraa Ahmed Abd

Course Objectives

General Objective

Enable students to understand the basics of community health services and identify the various roles of community health systems.

Learning Objectives: By the end of the semester, students will be able to:

1. Describe the process of monitoring children's growth (weight and height).
2. Explain the relationship between nutrition and common diseases.
3. Recognize the role of breastfeeding and vaccinations in promoting health.
4. Discuss the importance of maintaining vaccine efficacy during storage and transport.
5. Interpret the causes, symptoms, and preventive measures for common diseases (e.g., diarrhea, respiratory infections).
6. Understand the importance of national and expanded vaccination programs in preventing diseases and improving public health.

The curriculum:

Weeks	Subjects
1.	**General examination of the new born & Apgar score**
2.	**Infants' growth monitoring, weight, length**
3.	**Infant feeding breast, artificial, mixed**
4.	**Immunization, immunity, types**
5.	**Vaccination types, immunity**
6.	**Vaccination, general principle of vaccine**
7.	**Cold chain in general**
8.	**National immunization program in Iraq**
9.	**Expanded program of immunization**
10.	**Certain communicable diseases, general outlook**
11.	**Acute respiratory tract infection, causes, types, classification**
12.	**Vitamin A deficiency**
13.	**Diarrhea, causes, signs & symptoms**
14.	**Diarrhea management & prevention**
15.	= = =
16.	**ORS principles, composition, methods of health education, regarding ORS**
17.	**General important problem "mal nutrition in general"**
18.	= = =
19.	**Marasmus & kwashiorkor**
20.	= =
21.	**Iron & vit. Deficiency**
22.	**Vit. A & iodine deficiency**
23.	**Preschool health services, growth, feeding, vaccination**
24.	**School health services**
25.	**Feeding program of school age group**
26.	**Eye hygiene "trachoma control"**
27.	**Dental health services**
28.	**Learning disability**
29.	**Handicapped children**
30.	**Vital statistics**

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Community Health Services

Understanding the Apgar Score: A Critical Tool for Newborn Assessment

Introduction to Apgar Score

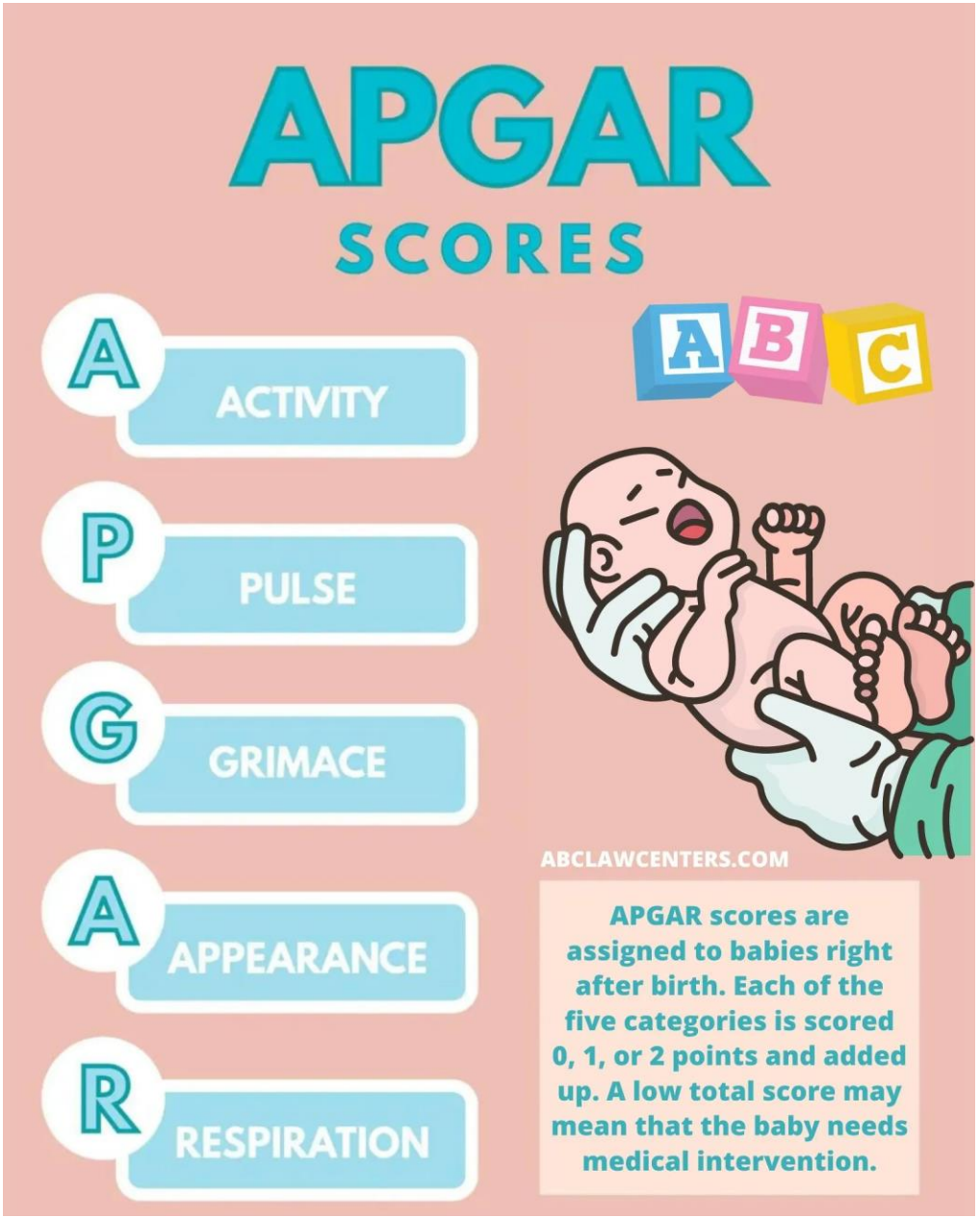
- Apgar Score is a vital assessment tool used to evaluate the health of newborns immediately after birth.
- This score helps healthcare professionals determine if a newborn requires immediate medical attention.
- Understanding its components is crucial for effective newborn care.

What is Apgar?

- Apgar is an acronym that stands for Appearance, Pulse, Grimace, Activity, and Respiration.
- Each of these criteria is scored from 0 to 2, with a maximum score of 10.
- This scoring system provides a quick overview of the newborn's physical condition.

Importance of Apgar Score

- The Apgar Score is essential for identifying newborns who may need immediate medical intervention.
- A low score can indicate potential health issues, allowing for timely treatment and improving outcomes for at-risk infants.



Components of Apgar Score

- ✓ The five components of the Apgar Score are Appearance (skin color), Pulse (heart rate), Grimace (reflex response), Activity (muscle tone), and Respiration (breathing effort).
- ✓ Each aspect is evaluated at one and five minutes after birth.

Scoring System Explained

- Each component of the Apgar Score is rated from 0 to 2.
- A total score of 7-10 is generally considered normal, while a score below 7 may require further evaluation and intervention.
- Understanding this scoring is vital for healthcare providers

Interpreting Apgar Scores

- A score of 0-3 indicates severe distress, 4-6 suggests moderate difficulty, while scores of 7-10 reflect stable health.
- These interpretations guide healthcare professionals in making informed decisions regarding the newborn's care.

Limitations of Apgar Score

- While the Apgar Score is a critical tool, it has limitations. It does not predict long-term outcomes or identify specific health issues.
- Therefore, it should be used in conjunction with other assessments for comprehensive evaluation.

Global Use of Apgar Score

- ✓ The Apgar Score is used worldwide, making it a universal standard for assessing newborns.
- ✓ Its simplicity and effectiveness have led to its adoption in various healthcare settings, enhancing newborn care globally.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Infant Growth Monitoring

Growth milestones

- ❑ Growth milestones are key indicators of an infant's development.
- ❑ They include physical, cognitive, and social achievements.
- ❑ Recognizing these milestones helps in identifying any potential developmental delays early on, ensuring timely interventions when necessary.

The Importance of Monitoring

- ✓ Regular monitoring of an infant's growth is essential for tracking their health and development.
- ✓ It allows parents and healthcare providers to celebrate achievements and address any concerns proactively, fostering a supportive environment for the child's growth.

- **Growth monitoring:** The continuous monitoring of growth in children can be performed at the individual level or at a group level.

- It can also be:

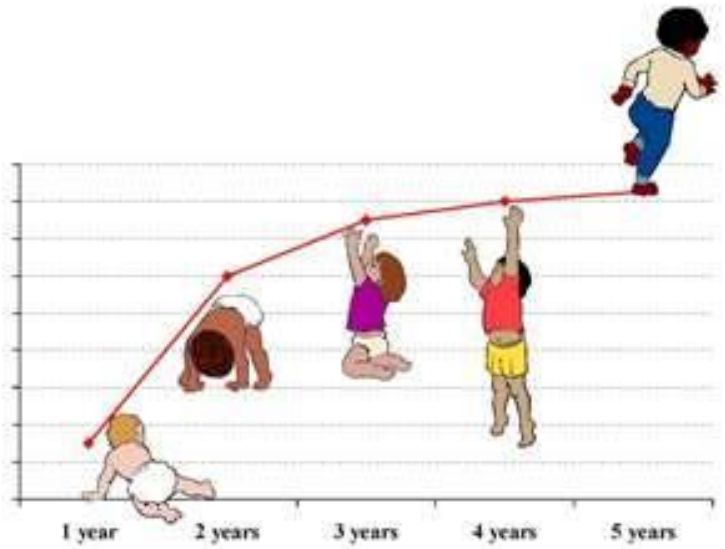
✓ Clinic-based growth monitoring (conducted by health professionals at Maternal and Child Health clinics).

✓ Community-based growth monitoring (conducted by trained of the community members like teachers or members of NGOs)

Tools for Measurement

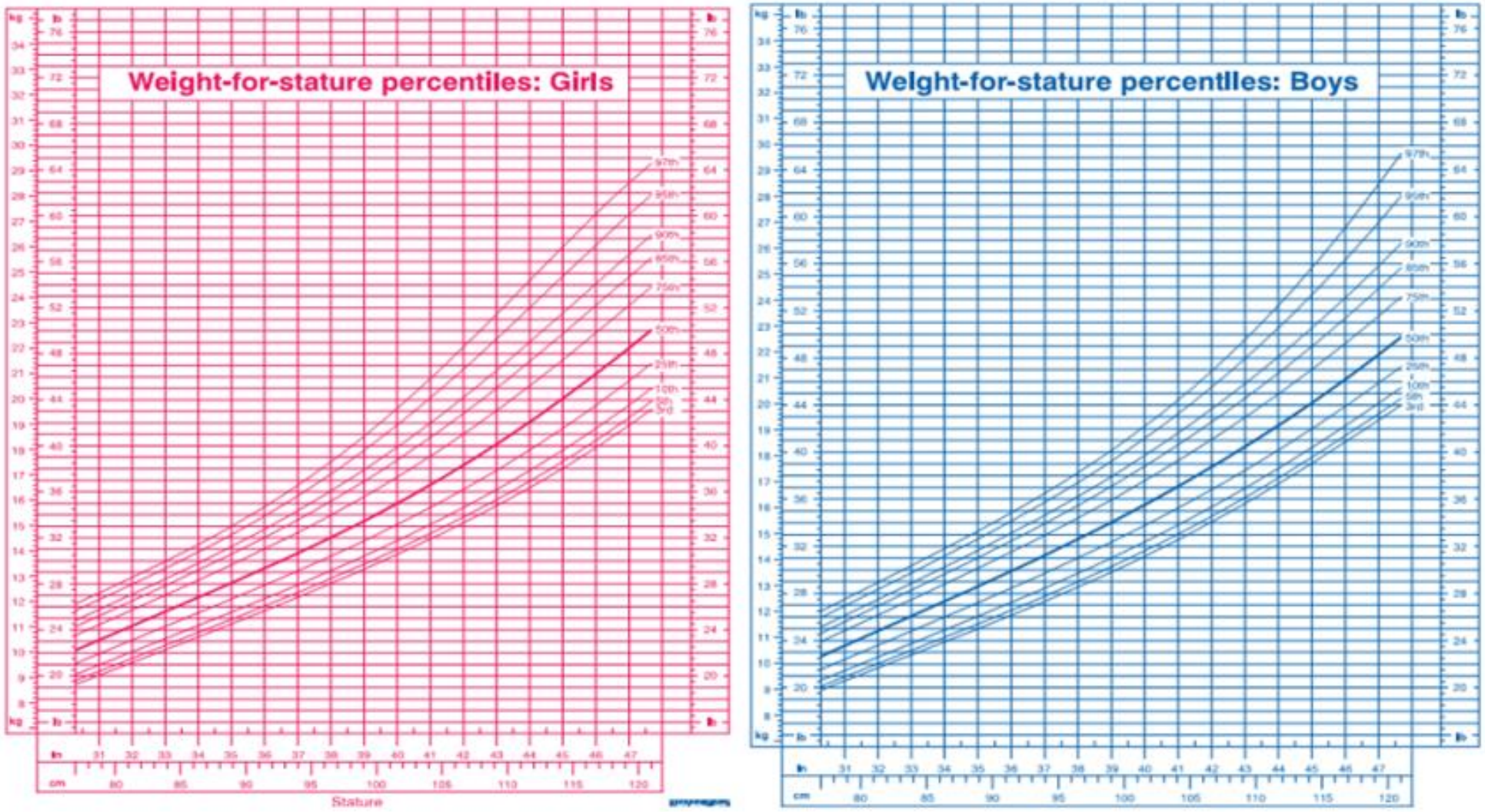
❖ Various tools are available for measuring infant growth, including: (growth charts, scales, and developmental checklists).

❖ Each tool plays a vital role in providing accurate assessments and helps in making informed decisions regarding the child's health.



Growth Chart

- Growth chart is a basic tool and standardized graph upon which a child's measurements may be plotted.
- This information allows a visual mechanism to compare the child's rate of growth over time (for example, months and years).
- This technique allows an assessment of how a child's growth rate and compares to his peer group as well as his own previous rate of growth.
- Girls and boys are measured on different growth charts because they grow in different patterns and at different rates.



CDC growth chart – weight-for-stature percentiles (2-20 years) for girls (left), for boys (right).

Common Growth Challenges

- Infants may face various growth challenges such as underweight, overweight, or delayed milestones.
- Identifying these challenges early allows for timely interventions, ensuring that the infant receives the support they need for healthy development.

Nutritional Impact on Growth

- Nutrition plays a pivotal role in an infant's growth.
- A balanced diet rich in essential nutrients supports physical and cognitive development.
- Educating caregivers on proper nutrition can significantly enhance growth outcomes for infants.

➢ Emotional Well-Being and Growth

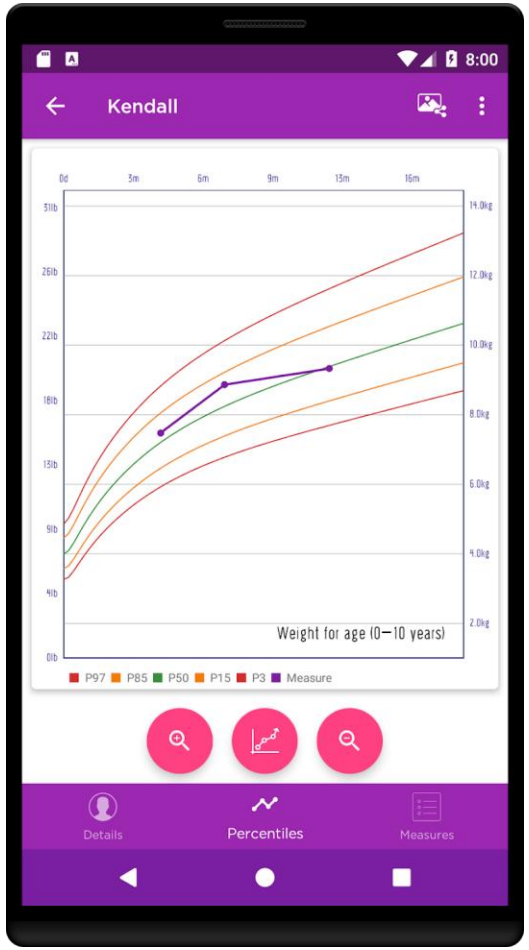
- An infant's emotional well-being is closely linked to their growth.
- Positive interactions and a nurturing environment promote healthy development.

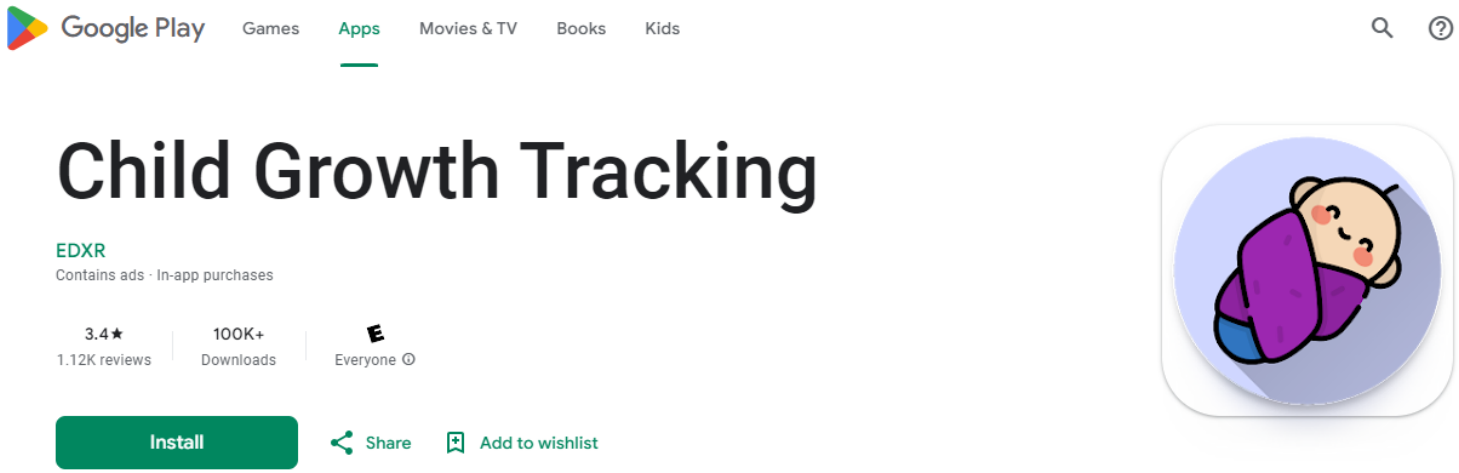
➢ Engaging Parents in Monitoring

- ✓ Engaging parents in the growth monitoring process is crucial.
- ✓ Providing resources, support, and education empowers them to take an active role in their child's development.

Innovations in Growth Monitoring

- Recent innovations in technology have transformed growth monitoring.
- Mobile apps and wearable devices provide real-time data, making it easier for parents and healthcare providers to track progress and address concerns promptly.



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Infants Feeding

Importance of Infant Nutrition

- Infant nutrition is vital for growth ,development, and immune function .
- Proper nutrition in the early months sets the foundation for lifelong health .
- nutrition plays in the physical and cognitive development of infants .
- Breastfeeding is one of the most effective ways to ensure child health and survival.

- Breast milk is the ideal food for infants.
- It is safe, clean and contains antibodies which help protect against many common childhood illnesses.
- Breast milk provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one third during the second year of life.

Breastfeeding Benefits

- Breastfeeding provides numerous benefits such as enhanced immune protection , optimal nutrition, and emotional bonding .
- It is recommended exclusively for the first six months of life, promoting both health
- and psychological well-being for both mother and child.

Challenges of Breastfeeding

Common issues include:

1. sore or cracked nipples,
2. engorged breasts,
3. mastitis,
4. and difficulty with infant latch.
5. Mothers may also experience low milk supply.
6. Maternal fatigue and pain from conditions like nipple vasospasm
7. Societal factors, such as limited maternity leave and workplace barriers, further hinder breastfeeding efforts.

- **Infant formula** is intended as an effective substitute to breast milk and is formulated to mimic the nutritional composition of breast milk.
- The recently updated FDA (Food and Drug Administration) rule on current Good Manufacturing Practices for infant formula.

Artificial feeding, primarily through formula, offers several benefits:

- ✓ Flexibility: Anyone can feed the baby, allowing shared bonding experiences and easier scheduling for parents.
- ✓ Monitoring Intake: Parents can track how much the baby consumes, providing peace of mind regarding nutrition.
- ✓ Convenience: Formula can be prepared in advance and stored, making it easier during outings or late-night feedings.
- ✓ Dietary Freedom: Mothers do not need to alter their diets to accommodate breastfeeding.

Challenges of Artificial Feeding

- Artificial feeding can lead to digestive issues,
- allergies,
- and may lack some antibodies found in breast milk .
- Careful selection of formulas and monitoring of the infant's response.

Mixed Feeding Strategies

- Mixed feeding combines breastfeeding and formula feeding, offering flexibility and nutritional benefits from both methods.
- This approach can be beneficial for mothers who face challenges with exclusive breastfeeding while still providing breast milk .

Benefits of Mixed Feeding

- Mixed feeding can provide nutritional balance and allow for shared feeding responsibilities.
- It can help maintain breastfeeding while accommodating the needs of both mother and infant, ensuring adequate nutrition during growth.

Challenges of Mixed Feeding

- Mixed feeding can lead to confusion for the infant regarding feeding methods and may affect milk supply .
- It's essential to establish a routine and monitor the infant's feeding cues to ensure effective nutrition.

To all the breastfeeding mums -Thank you!

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Community Health Services

Shielding Our Future: The Power of Immunization

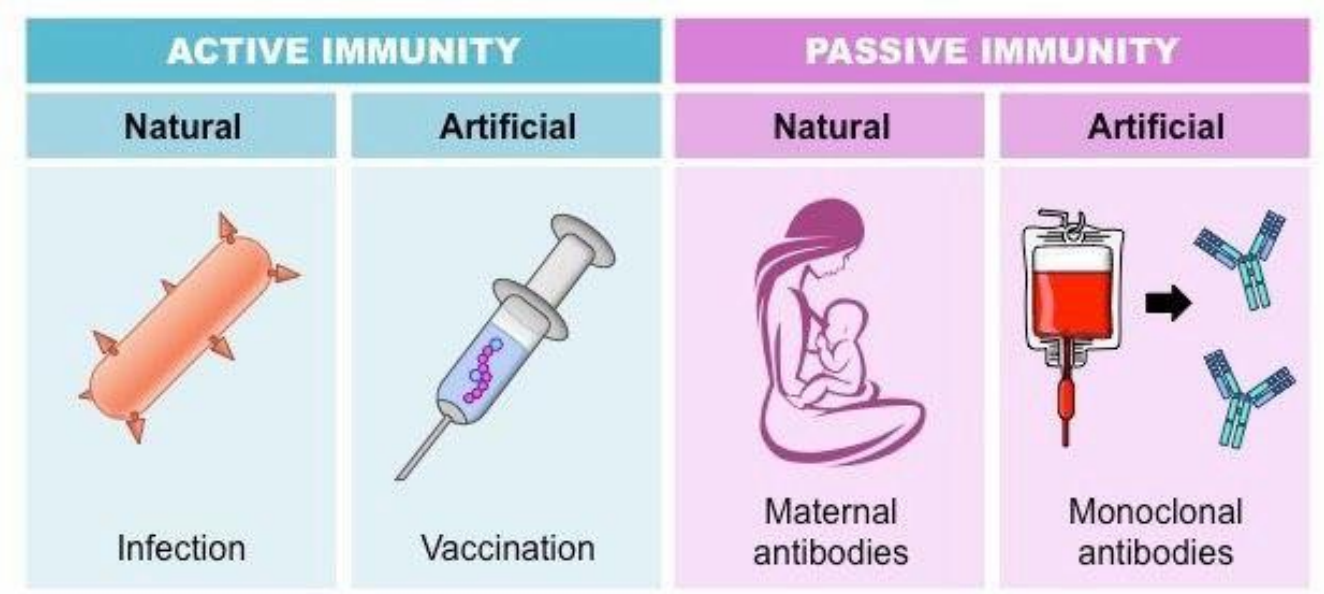
What is Immunization?

- ✓ Immunization: is the process of making a person immune to a disease, typically through vaccines.
- ✓ Vaccines contain weakened or killed pathogens that help the immune system recognize and combat future infections.

Benefits of Immunization

- ✓ Immunization not only protects individuals but also contributes to herd immunity. This means that when a large portion of the population is vaccinated, it helps to protect those who cannot be vaccinated, such as infants and immunocompromised individuals.

- Immunity refers to the body's ability to resist infections through the presence of antibodies, which can be acquired actively or passively.
- Active immunity occurs when exposure to a disease triggers the immune system to produce antibodies, either naturally or via vaccination, and is long-lasting.
- Passive immunity involves receiving antibodies from an external source, such as maternal antibodies or immunoglobulin injections, providing immediate but short-term protection.



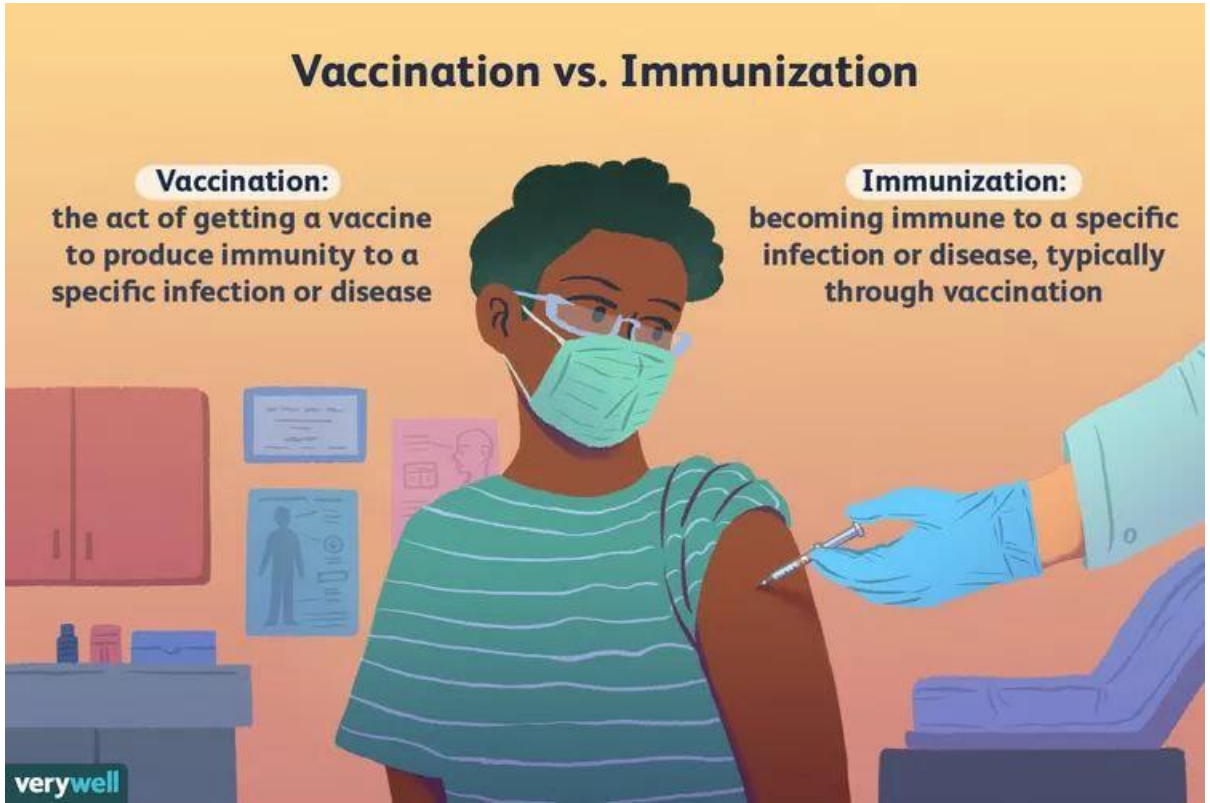
What Are Vaccines?

❖ Vaccines are biological preparations that provide acquired immunity to a particular infectious disease. They contain antigens that stimulate the body's immune response, preparing it to fight off future infections effectively.

❖Vaccines train the immune system by introducing a harmless component of a pathogen. This process helps the body recognize and defend itself against the real threat, ensuring a rapid response when exposed to the actual virus or bacteria.

❑ The History of Vaccination

- The journey of vaccination began in the 18th century with Edward Jenner’s smallpox vaccine.
- Since then, vaccines have evolved, leading to the eradication of diseases like smallpox and significantly reducing illnesses such as polio and measles.



Challenges in Immunization

- Despite its benefits, immunization faces challenges such as vaccine hesitancy, misinformation, and access issues.
- Addressing these challenges is crucial for maintaining and improving vaccination rates globally.

Myths about Vaccines

- Many myths surround vaccines, such as the false link to autism.
- It's essential to rely on scientific evidence and expert opinions to dispel these myths and promote the importance of vaccination.

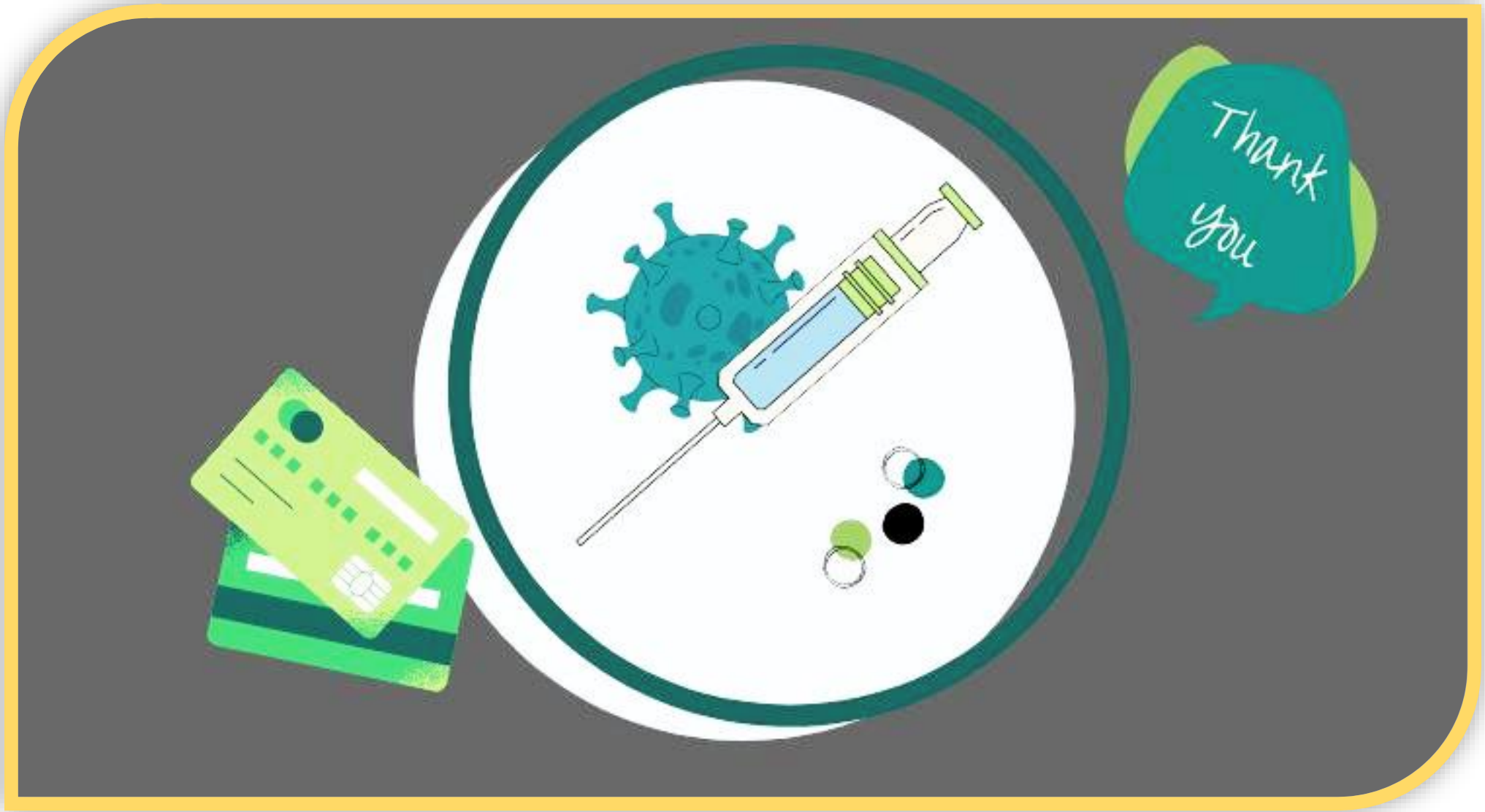
Immunization Schedule 2019

Age	Type of Vaccines
0 – 1 Week	OPV-0 + HepB-1 + BCG
2 Months	OPV-1 + PCV13-1 + Rota-1 + **Penta-1**
4 Months	OPV-2 + PCV13-2 + Rota-2 + **Penta-2 + IPV-1**
6 Months	OPV-3 + PCV13-3+ **Penta-3 + IPV-2**
9 Months	Measles + Vit. A (100,000 I.U.)
12 Months	MMR
18 Months	OPV-4 + Vit. A (200,000 I.U.) + **DTP-1 + MMR**
4 -6 Years	OPV-5 + **DTP-2 + Vit. A (200,000 I.U.)**

epi20042003@yahoo.com

جدول تلقيحات الإطفال 2019

العمر	نوع اللقاح
اقل من أسبوع	شلل فموي (ج صفر) + كبد فايروسي ب + بي سي جي
شهرين	الجرعة الاولى من شلل فموي+ مكورات رئوية + روتا + **خماسي**
4 أشهر	الجرعة الثانية من شلل فموي + مكورات رئوية + روتا + **خماسي+ شلل زرقي ج1**
6 أشهر	الجرعة الثالثة من شلل فموي + مكورات رئوية + **خماسي+ شلل زرقي ج2**
9 أشهر	حصبة منفردة + فيتامين A (100,000 وحدة دولية)
12 شهر	حصبة مختلطة
18 شهر	شلل فموي (ج.م.1) + فيتامين A (200,000 وحدة دولية) + **ثلاثي + حصبة مختلطة**
4 – 6 سنوات	شلل فموي (ج.م.2) + فيتامين A (200,000 وحدة دولية) + **ثلاثي**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Shielding Our Future: The Power of Immunization 2

Classification of vaccines

Live vaccines	Live Attenuated vaccines	Killed Inactivated vaccines	Toxoids	Cellular fraction vaccines	Recombinant vaccines	mRNA vaccines
Small pox variola vaccine	BCG Typhoid oral Plague Oral polio Yellow fever Measles Mumps Rubella Intranasal Influenza Typhus	Typhoid Cholera Pertussis Plague Rabies Salk polio Intra-muscular influenza Japanise encephalitis	Diphtheria Tetanus	Meningococcal polysaccharide vaccine Pneumococcal polysaccharide vaccine Hepatitis B polypeptide vaccine	Hepatitis B vaccine	COVID-19 mRNA vaccine

- **Live Attenuated Vaccines:** Contain weakened pathogens that mimic natural infection, e.g., MMR and BCG vaccines.
- **Inactivated Vaccines:** Use killed pathogens, maintaining their structure to elicit an immune response, e.g., hepatitis A and Salk polio vaccines.
- **Subunit Vaccines:** Include specific parts of the pathogen (proteins or sugars), e.g., pertussis and HPV vaccines.
- **Toxoid Vaccines:** Inactivate toxins produced by bacteria, e.g., diphtheria and tetanus vaccines.

- Conjugate Vaccines: Link polysaccharides from bacteria to proteins to enhance immune response, e.g., Hib vaccine.

- Recombinant Vaccines: Use genetically engineered components from pathogens, e.g., hepatitis B vaccine.

- Nucleic Acid Vaccines: Employ mRNA or DNA to instruct cells to produce pathogen proteins, e.g., COVID-19 mRNA vaccines.

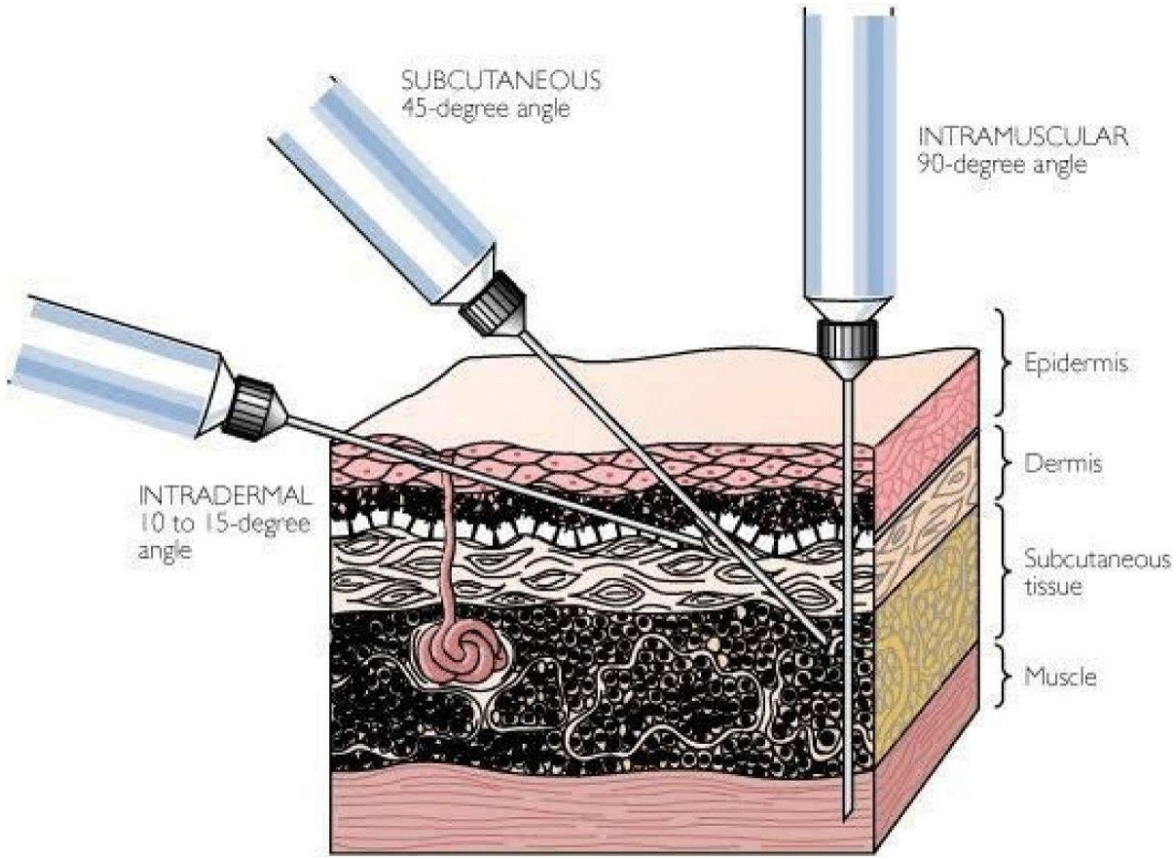
Differences between salk and sabin

#	Salk (IPV)	Sabin (OPV) Bivalent (p1, p2)
1	Now on all countries	In developing countries
2	Inactivated (killed)	Live attenuated
3	Injectable	Oral
4	Prevents spread of wild polio virus to the nervous system through blood	Limits multiplication of wild poliovirus in the intestine and therefore reduces fecal transmission
5	No shedding of vaccine virus in the stool shedding of vaccine	Leading to passive immunity of close contacts
6	Expensive (needles & syringe)	Cheap & easy
7	No marked adverse events	Vaccine associated paralysis (1/3,000,000 doses in Trivalent and 1/2,500,000 in Bivalent)
8	IPV: 0 - 8 oc (18 months), 37 oc (4 weeks).	OPV: -20 oc (up to 2 years), 0 – 8 oc (up to 1 year), 37 oc (1 day).

Routes of administration:

Oral route (Polio vaccine, oral BCG vaccine,Intradermal route (BCG vaccine),Deep subcutaneous or intramuscular route (most vaccines,Scarification (small pox vaccine)

Intranasal route (live attenuated influenza vaccine)



Contraindications to Vaccination

1- General:

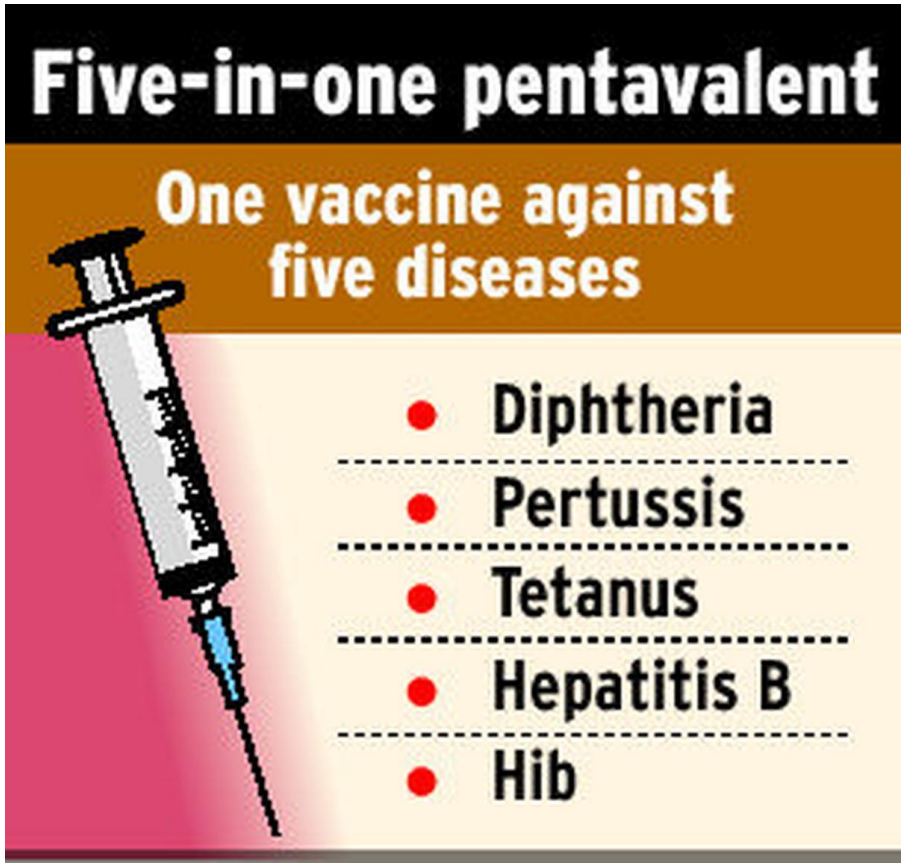
– Immunological dysfunction e.g. hypo-gamma-globulinaemia
– Malignant disease, e.g. leukemia, Hodgkin's disease
– Steroid therapy, immuno-suppressants & radiotherapy

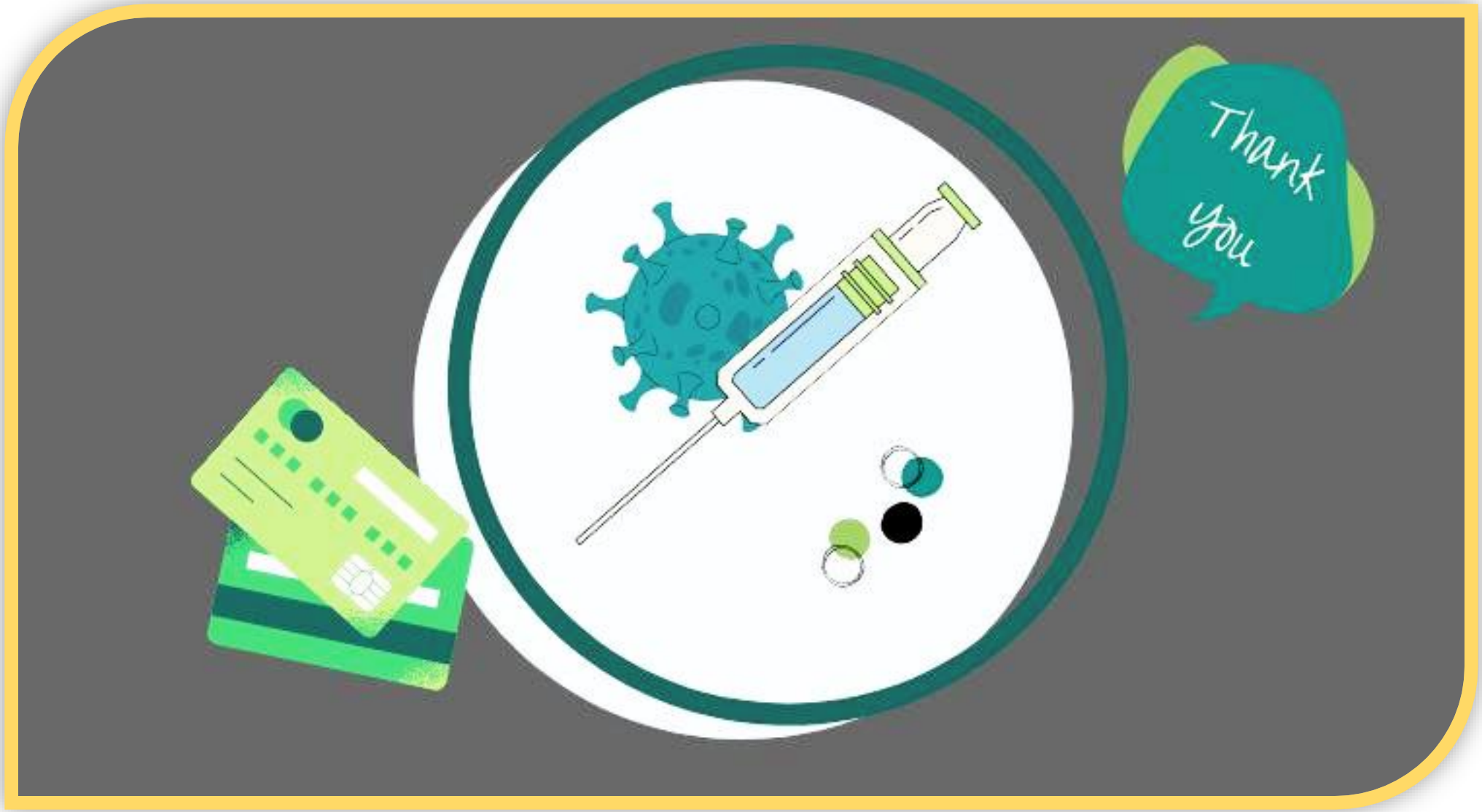
2-Specific:

– Oral poliomyelitis: Severe diarrhea or vomiting
– Measles: Active TB, allergy to Polymyxin & neomycin, history of convulsions (precautionary)
– BCG: Local septic condition, premature & low body weight baby, chronic skin disease
– Rubella: Pregnancy, allergy to neomycin & polymyxin, thrombocytopenia.

➢ Precautions to killed vaccines & Toxoids:

1- Any abnormality of the CNS e.g. Spina bifida (acute febrile illness)
2- Severe local or general reaction to a previous dose (give dt) (Td)
3- History of convulsions in a child
4- Family history of convulsions (controversial)

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Communicable Diseases: General Outlook

- Communicable diseases pose significant global health challenges.
- These infectious illnesses spread between individuals through various means.
- Understanding their nature, transmission, and management is crucial for effective public health strategies.

What are Communicable Diseases?

1

Definition

Infectious illnesses caused by pathogens that can spread from person to person.

2

Causative Agents

Include bacteria, viruses, fungi, and parasites. These microorganisms invade the body.

3

Contagious Nature

Can spread through direct contact, bodily fluids, or contaminated surfaces.

Types of Communicable Diseases

Bacterial

Tuberculosis, strep throat, and bacterial pneumonia are common bacterial infections.

Viral

Influenza, COVID-19, and measles are examples of viral communicable diseases.

Parasitic

Malaria and giardiasis are caused by parasites that invade the body.

Modes of Transmission

1

Direct Contact

Transmission occurs through physical contact with an infected person.

2

Airborne

Pathogens travel through the air in droplets or dust particles.

3

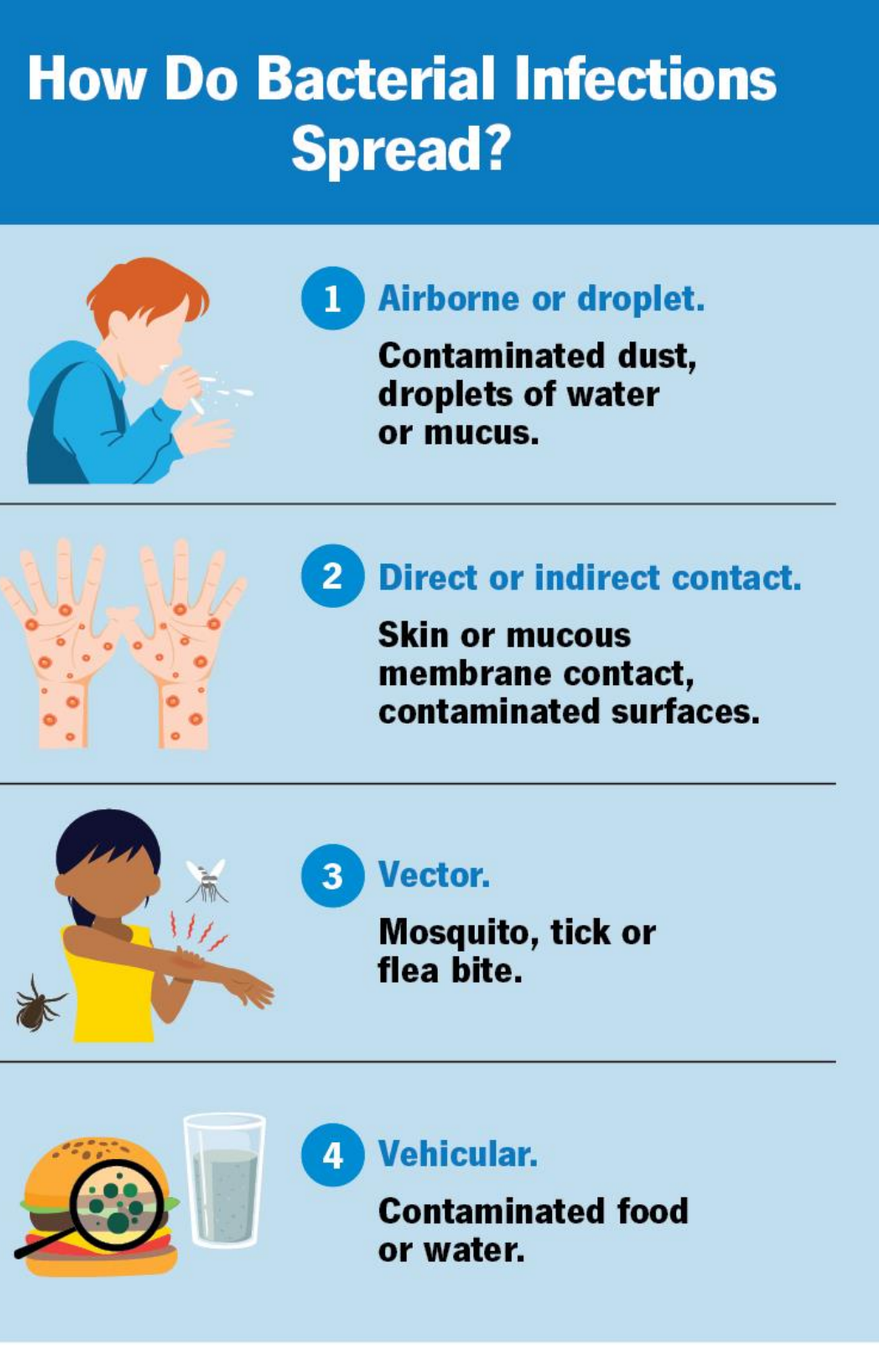
Fomites

Contaminated objects or surfaces can harbor and spread infectious agents.

4

Vector-borne

Insects or animals carry and transmit the pathogen to humans.



Risk Factors for Communicable Diseases

Population Density

Crowded areas increase the likelihood of disease transmission between individuals.

Sanitation

Poor hygiene and inadequate sanitation facilities contribute to disease spread.

Immune Status

Weakened immune systems make individuals more susceptible to infections.

Global Travel

Increased international travel can rapidly spread diseases across borders.

Symptoms and Diagnosis

Disease	Common Symptoms	Diagnostic Method
Influenza	Fever, cough, body aches	Rapid antigen test
Tuberculosis	Persistent cough, weight loss	Skin test, chest X-ray
Malaria	Fever, chills, fatigue	Blood smear microscopy

Preventive Measures

Vaccination

Immunizations protect against many communicable diseases, reducing their spread.

Hygiene

Regular handwashing and proper sanitation help prevent pathogen transmission.

Personal Protection

Wearing masks and maintaining distance can reduce airborne transmission.

Education

Public awareness campaigns promote understanding of disease prevention strategies.

Treatment and Management

1

Diagnosis

Accurate identification of the pathogen guides appropriate treatment selection.

2

Medication

Antibiotics, antivirals, or antiparasitics are prescribed based on the causative agent.

3

Supportive Care

Managing symptoms and maintaining hydration aid in recovery.

4

Follow-up

Monitoring patient progress ensures effective treatment and prevents complications.

Global Trends and Challenges

1 Emerging Diseases

New pathogens continue to emerge, posing unpredictable global health threats.

2 Antimicrobial Resistance

Increasing drug resistance complicates treatment of many communicable diseases.

3 Climate Change

Shifting weather patterns affect disease vector distributions and transmission patterns.

4 Health Inequalities

Disparities in healthcare access exacerbate the impact of communicable diseases.

Role of Public Health Initiatives

Immunization Programs

Large-scale vaccination efforts help prevent outbreaks and protect vulnerable populations.

Health Education

Community-based programs raise awareness about disease prevention and control measures.

Surveillance Systems

Monitoring disease trends enables rapid response to potential outbreaks.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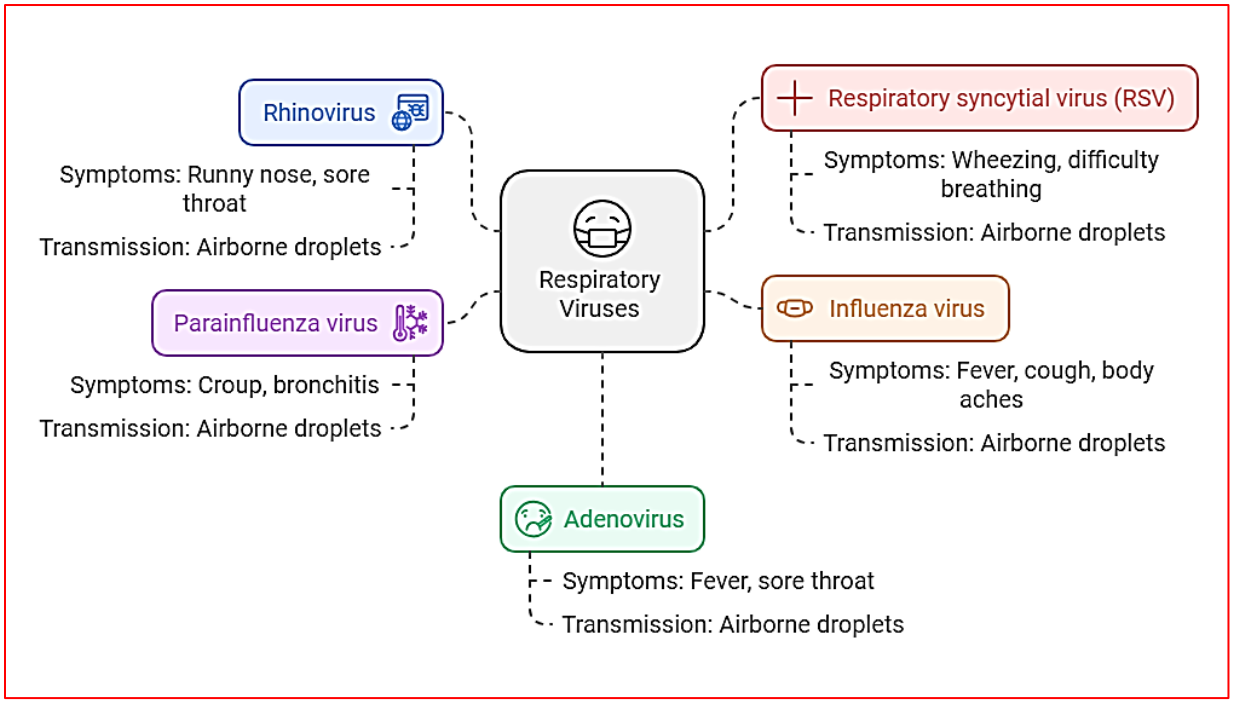
Acute Respiratory Tract Infections (ARTIs): are a significant health concern for children worldwide, often leading to morbidity and, in severe cases, mortality.

ARTIs: are a group of infections that affect the upper and lower respiratory tract, leading to a range of symptoms that can vary in severity.

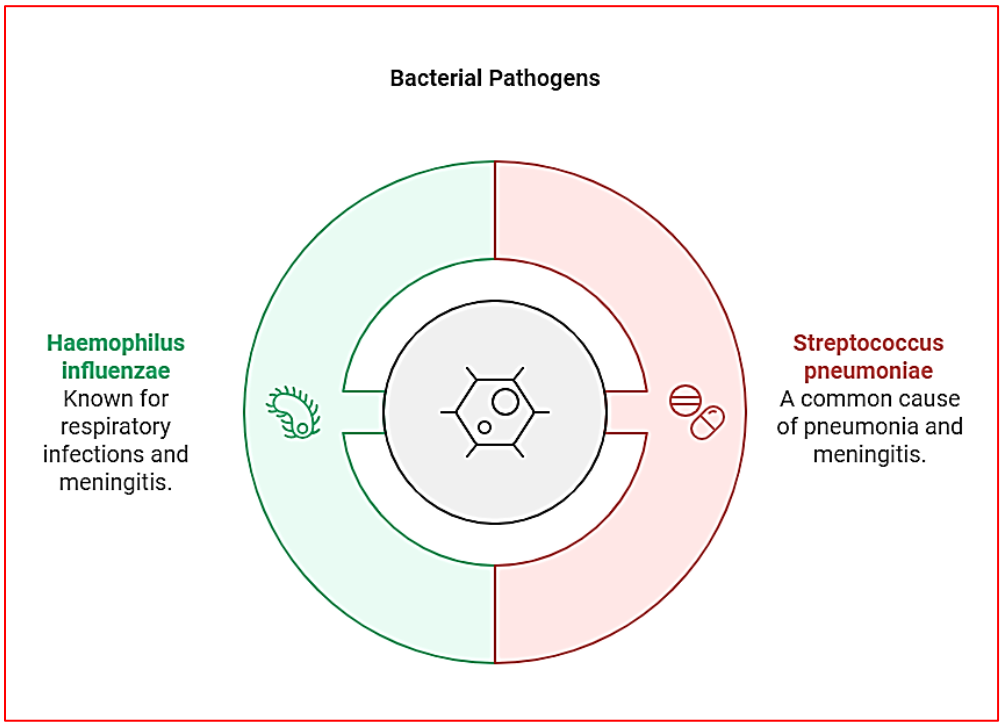
Causes of Acute Respiratory Tract Infections

Acute Respiratory Tract Infections in children can be caused by various pathogens, including:

1. Viruses: The majority of ARTIs in children are viral in origin. Common viruses include:

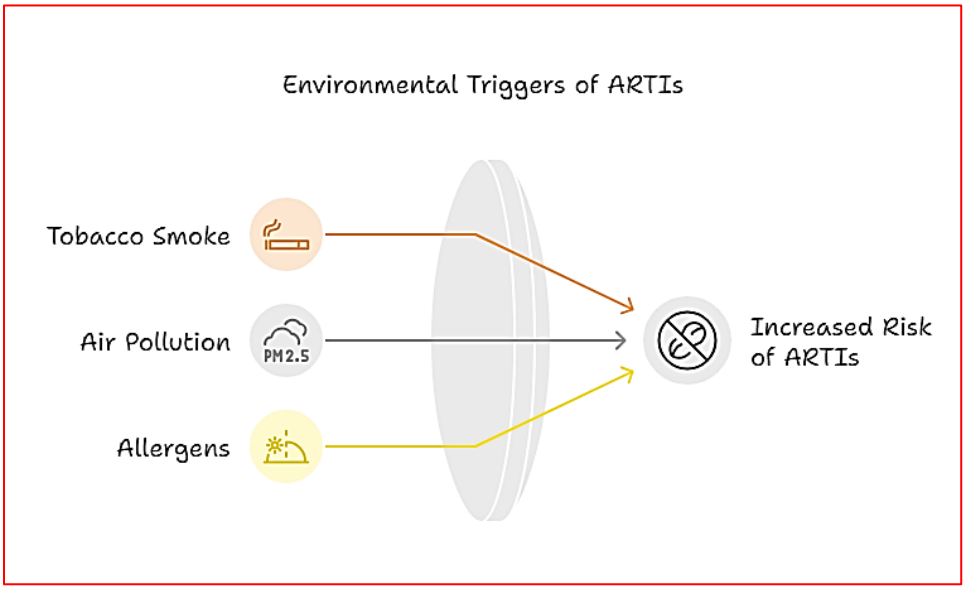


2. Bacteria: Bacterial infections can also lead to ARTIs, often following a viral infection. Common bacterial pathogens include:



3. Fungi: Although less common, fungal infections can occur, particularly in immunocompromised children.

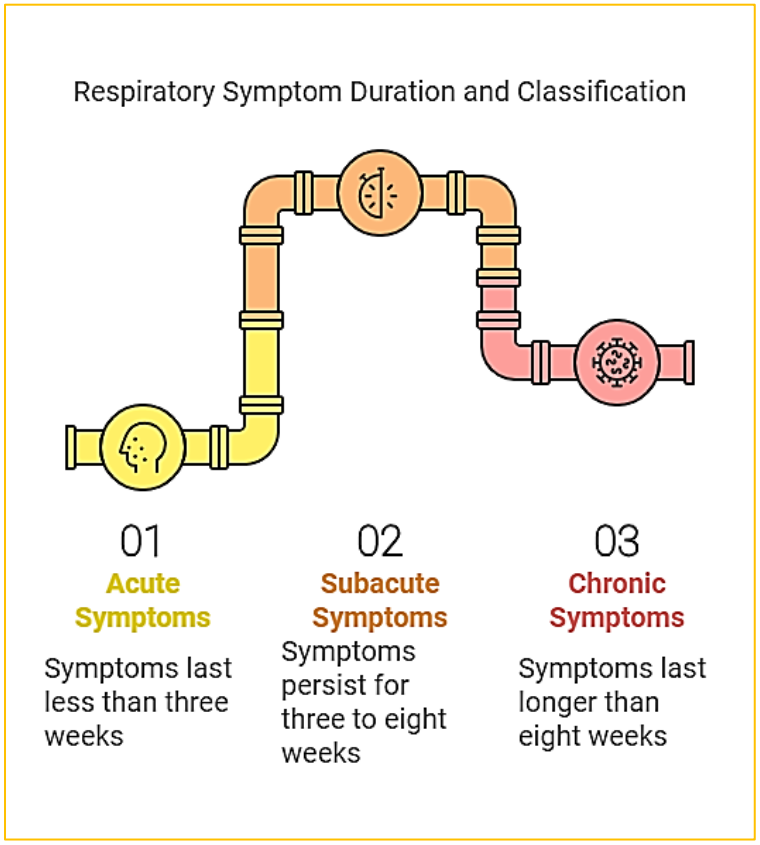
4. Environmental Factors: Exposure to tobacco smoke, air pollution, and allergens can exacerbate or predispose children to ARTIs.



Classification of Respiratory Tract Infections

ARTIs can also be classified based on their clinical presentation and duration:

1. **Acute**: Symptoms last less than three weeks. This includes most viral URTIs and acute bronchitis.
2. **Subacute**: Symptoms persist for three to eight weeks. This may include post-viral cough or prolonged bronchitis.
3. **Chronic**: Symptoms last longer than eight weeks, often indicating underlying conditions such as asthma or chronic lung disease.

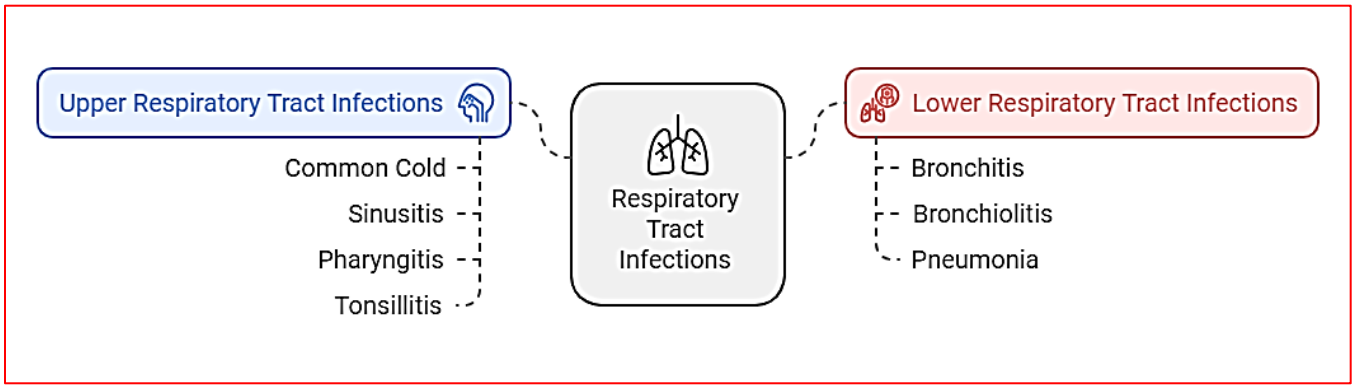


Types of Acute Respiratory Tract Infections

ARTIs can be categorized based on the anatomical site of infection:

1. **Upper Respiratory Tract Infections (URTIs)**: These include infections of the nasal passages, sinuses, and throat. Common URTIs include:
    - Common cold (viral rhinitis)
    - Sinusitis
    - Pharyngitis
    - Tonsillitis
2. **Lower Respiratory Tract Infections (LRTIs)**: These involve the trachea, bronchi, and lungs. Common LRTIs include:

    - Bronchitis
    - Bronchiolitis
    - Pneumonia



Importance of Study ARTIs

- Understanding the causes, types, and classification of Acute Respiratory Tract Infections in children is **crucial** for healthcare providers.
- Early recognition and appropriate management can significantly reduce the risk of **complications** and **improve** outcomes for affected children.
- Continued **research** and public health initiatives are essential to address the burden of ARTIs in pediatric populations.

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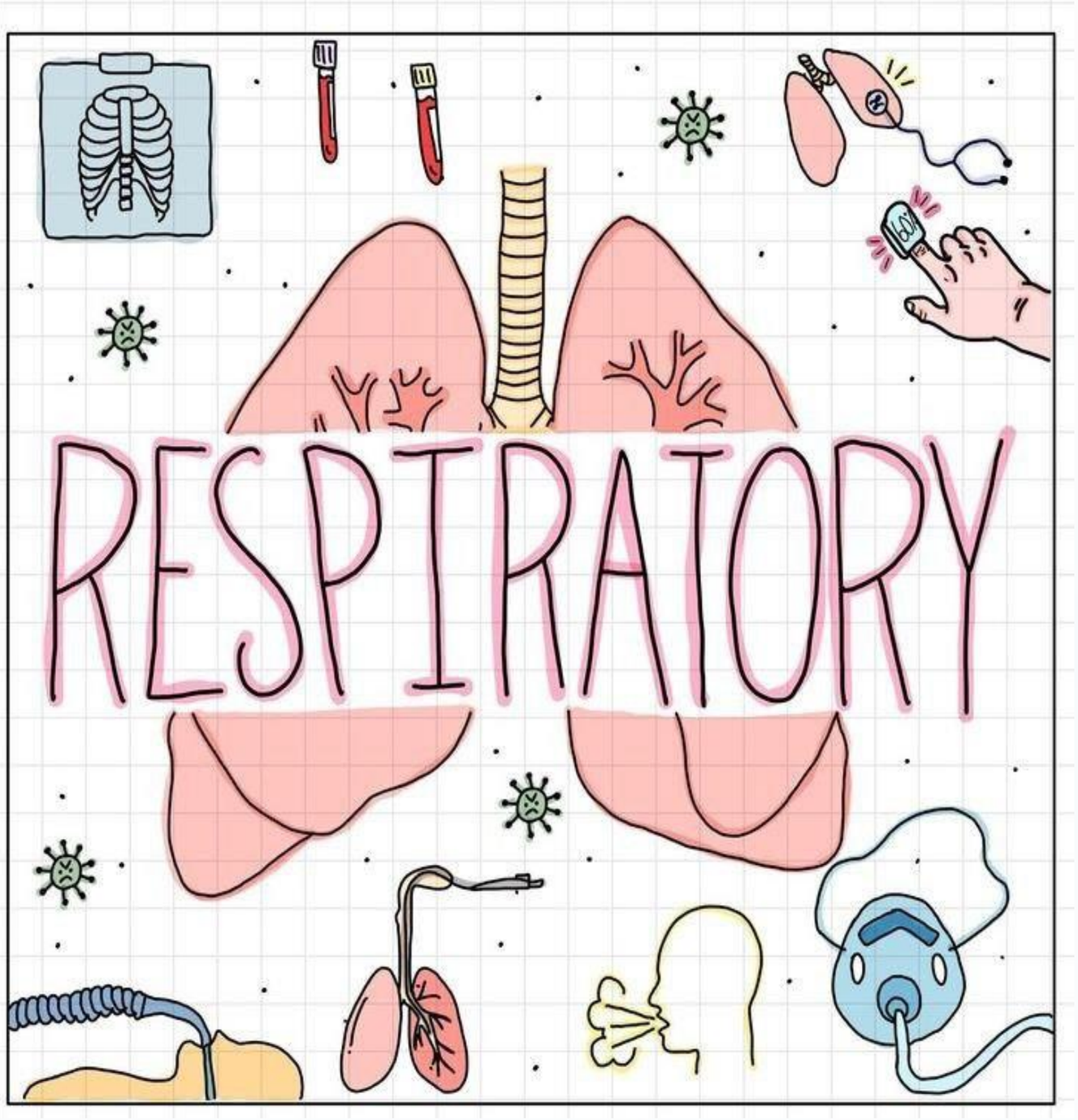
Community Health Services



Acute Respiratory Tract Infections: Prevention and Control

Importance of Early Diagnosis and Prompt Treatment

Early Detection

Recognizing ARTIs early allows for swift intervention, reducing the risk of complications and transmission.

Prompt Treatment

Prompt treatment with antibiotics or other appropriate therapies can shorten illness duration and reduce severity.

Preventive Measures: Hand Hygiene, Respiratory Etiquette, and Vaccination

Hand Hygiene

Regular handwashing with soap and water or alcohol-based hand sanitizer effectively reduces viral and bacterial spread.

Respiratory Etiquette

Covering coughs and sneezes with a tissue or elbow, and disposing of tissues properly, minimizes airborne transmission.

Vaccination

Vaccines against influenza and pneumococcus can significantly reduce the incidence and severity of ARTIs.

Environmental Control: Ventilation, Disinfection, and Cleaning

Ventilation

Maintaining good ventilation in indoor settings allows for the dilution and removal of infectious particles.

Disinfection

Regular disinfection of frequently touched surfaces, such as door handles and keyboards, inhibits pathogen growth.

Cleaning

Thorough cleaning of floors, walls, and other surfaces removes dust and potential pathogens.

Targeted Interventions: Isolation, Contact Tracing, and Quarantine

Isolation

Separating individuals with confirmed or suspected ARTIs from others limits transmission within communities and healthcare settings.

1

2

Contact Tracing

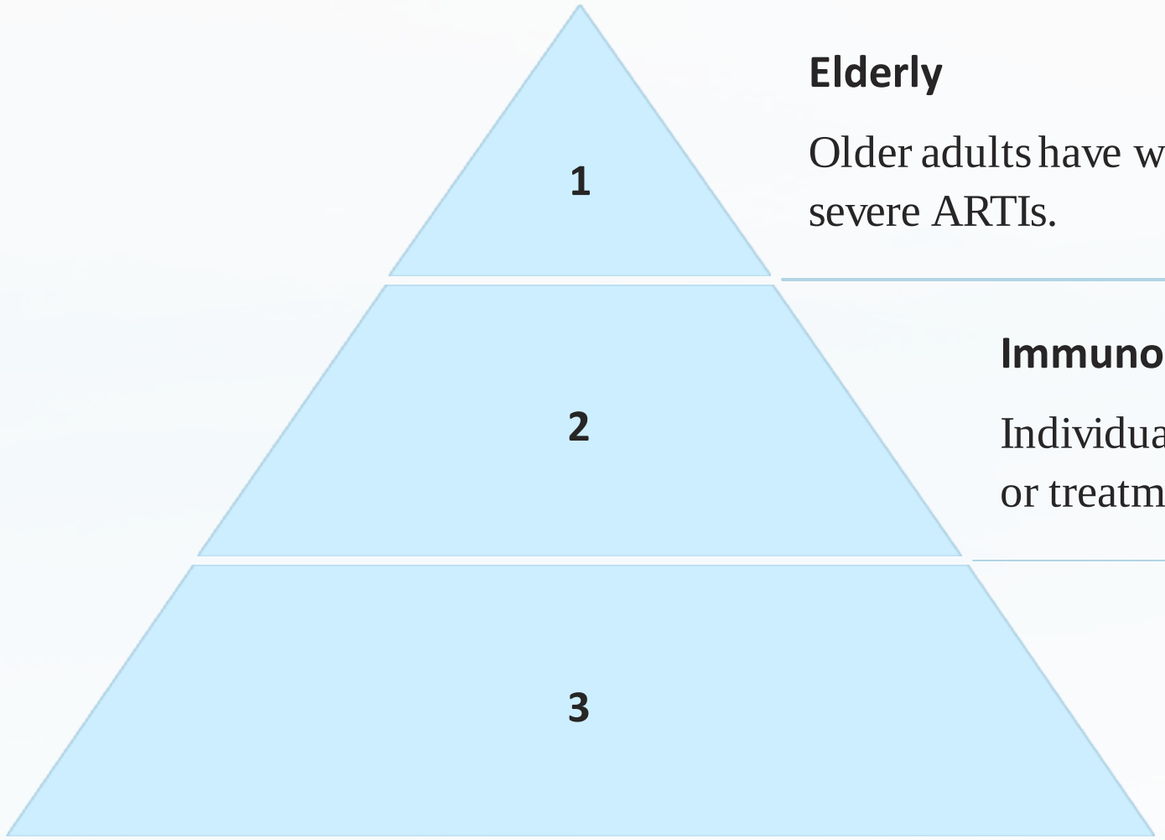
Identifying and contacting individuals who may have been exposed to the infected person helps to prevent further spread.

3

Quarantine

Restricting the movement of individuals who have been exposed to the infected person for a certain period minimizes potential spread.

Considerations for Vulnerable Populations: Elderly, Immunocompromised, and Children



Elderly

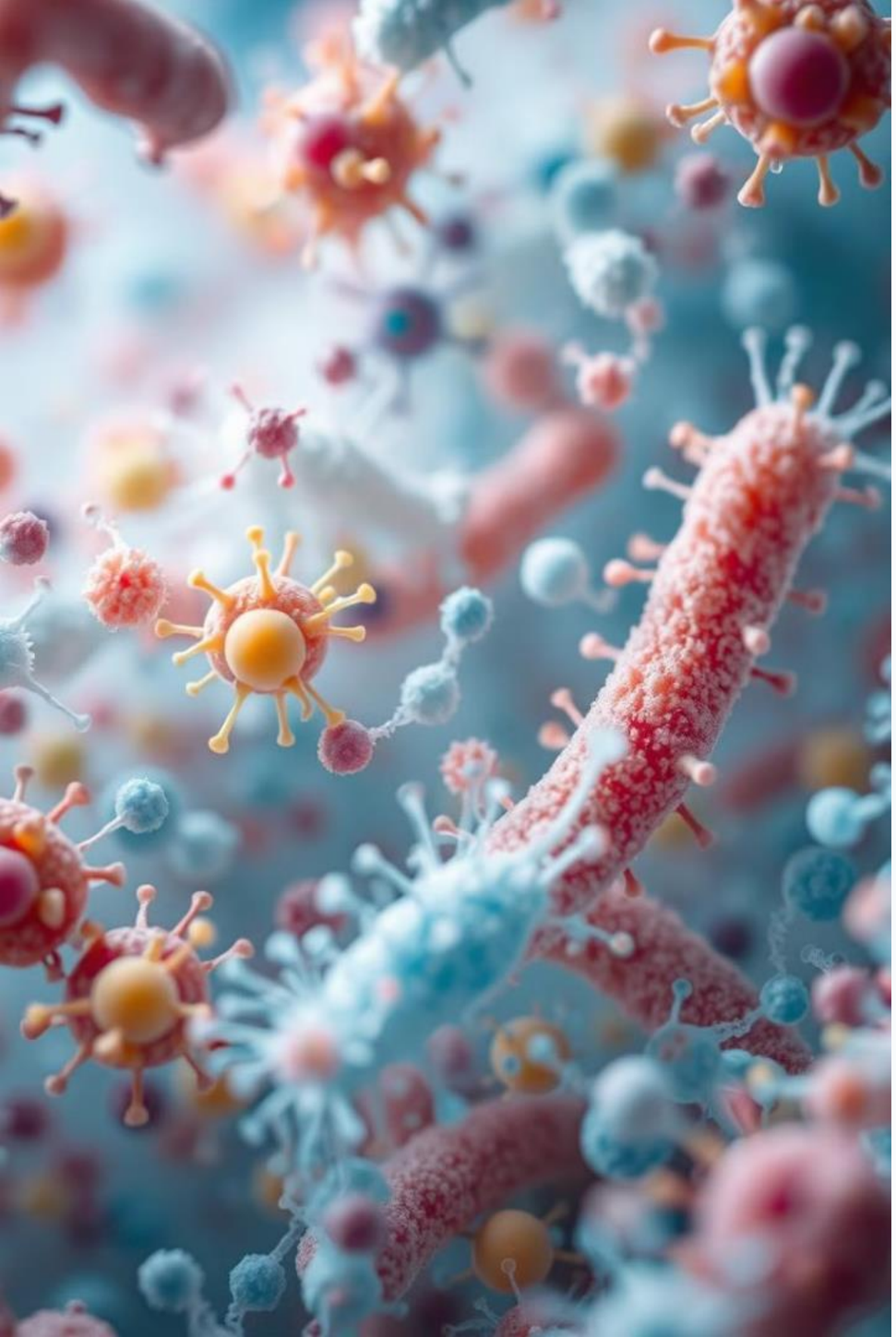
Older adults have weakened immune systems, making them more susceptible to severe ARTIs.

Immunocompromised

Individuals with weakened immune systems due to medical conditions or treatments are at higher risk.

Children

Young children have developing immune systems, making them more vulnerable to infection and complications.



Emerging Threats: Novel Pathogens and Antibiotic Resistance

1

Novel Pathogens

The emergence of new and highly contagious respiratory viruses poses ongoing challenges to public health.

2

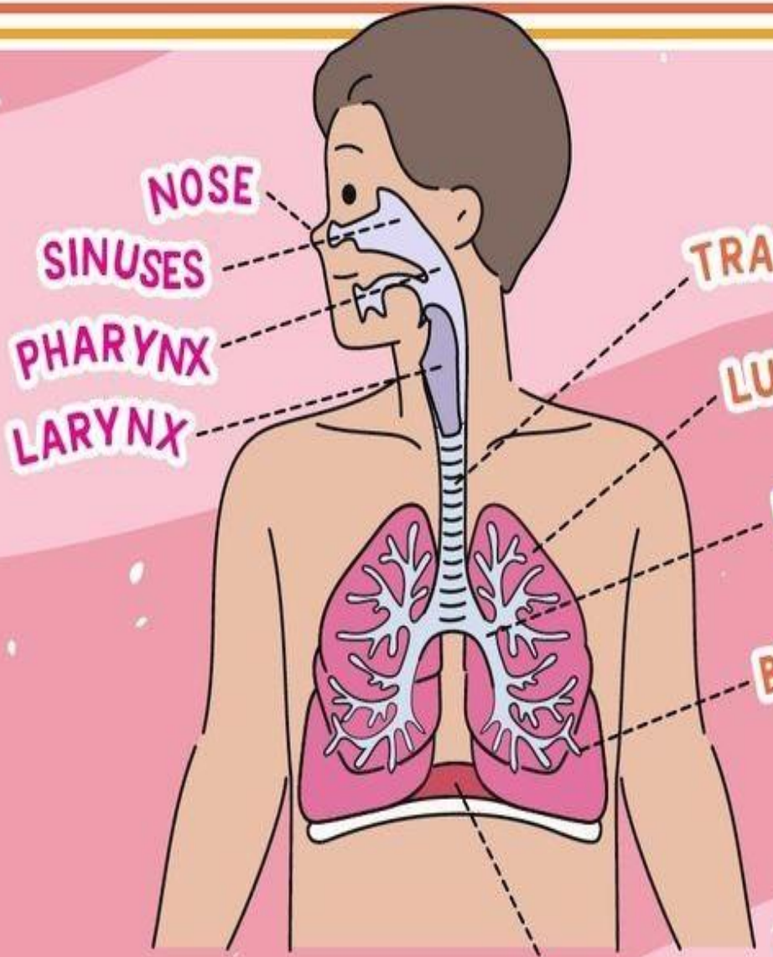
Antibiotic Resistance

The increasing prevalence of antibiotic-resistant bacteria threatens the effectiveness of treatments for bacterial infections, including ARTIs.

Thank You

RESPIRATORY SYSTEM

Nurse Well Versed



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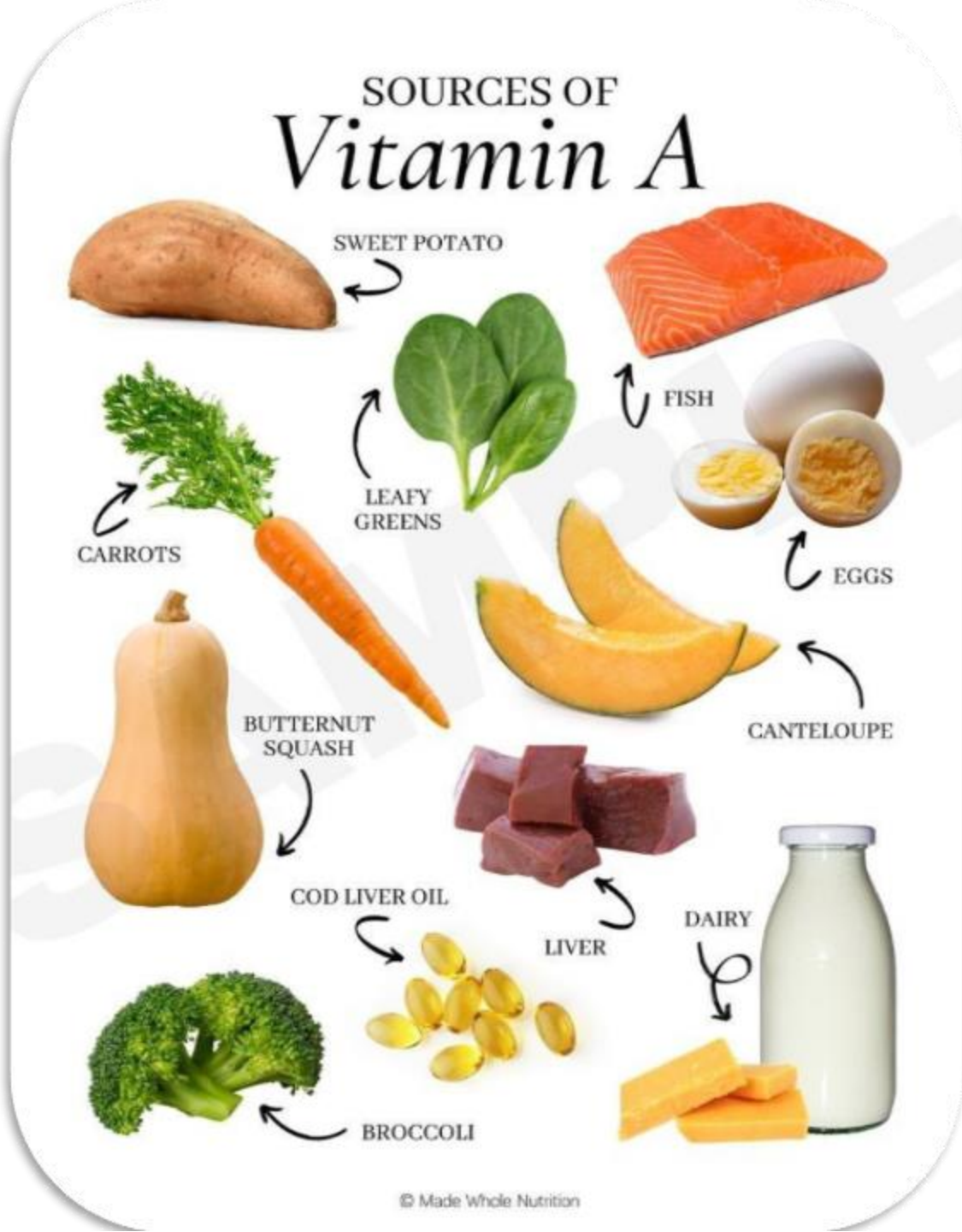
Vitamin A and Iodine Deficiencies: Causes, Consequences, and Prevention

What is Vitamin A?

- Fat-soluble vitamin essential for vision, immune function, and growth.
- Found in two forms: Retinol (animal sources) and Beta-carotene (plant sources).
- Key dietary sources: liver, dairy, eggs, carrots, spinach, and sweet potatoes.


SOURCES OF
Vitamin A
SWEET POTATO
FISH
LEAFY GREENS
CARROTS
EGGS
CANTELOUPE
BUTTERNUT SQUASH
COD LIVER OIL
LIVER
DAIRY
BROCCOLI
© Made Whole Nutrition

Vitamin A Deficiency (VAD)

- Common in developing countries due to malnutrition.
- Affects children, pregnant women, and individuals with poor diets.
- Major public health concern, leading to blindness and increased mortality risk.

Vitamin A Deficiency

Symptoms and Consequences of VAD

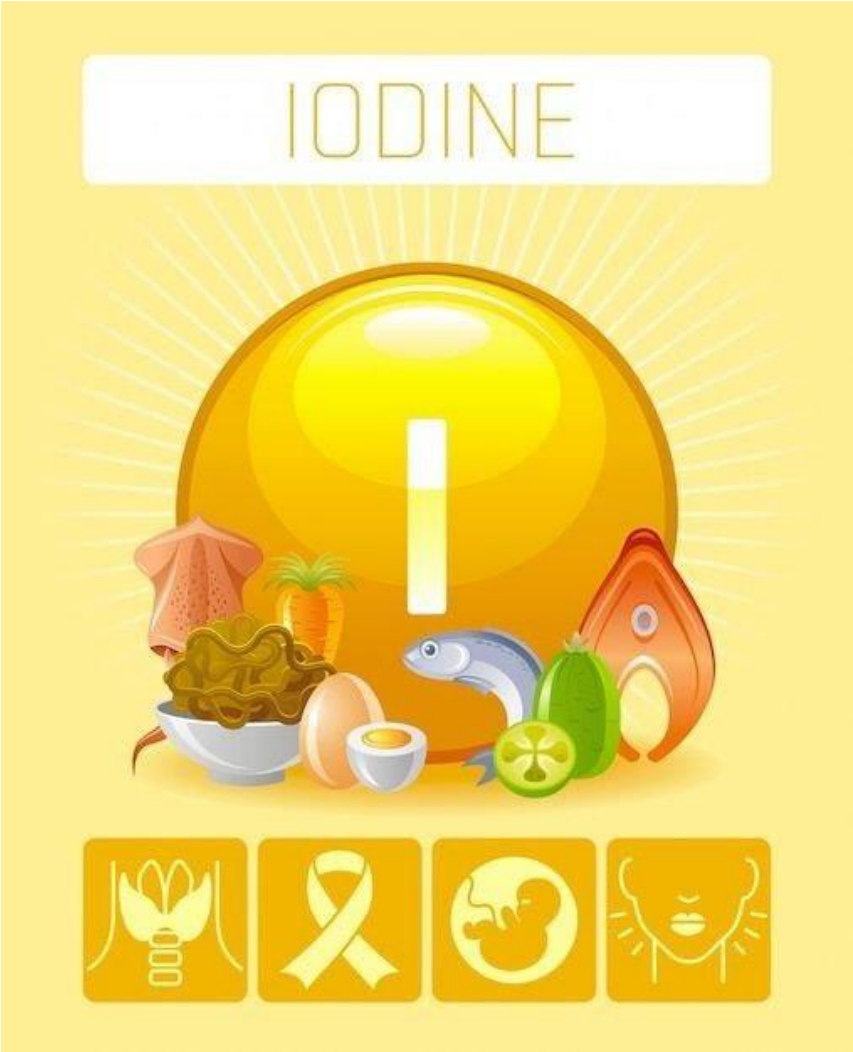
- Night blindness (early symptom)
- Xerophthalmia (dryness of the eyes)
- Increased risk of infections (weak immunity)
- Stunted growth in children
- High mortality rates in children under 5

Prevention and Treatment of VAD

- Vitamin A supplementation programs
- Fortification of foods (e.g., fortified milk, margarine)
- Promoting dietary intake of Vitamin A-rich foods
- Breastfeeding to provide infants with Vitamin A

What is Iodine?

- Essential mineral needed for thyroid hormone production.
- Regulates metabolism, growth, and brain development.
- Key sources: iodized salt, seafood, dairy products, and eggs.



SOURCES OF *Iodine*

POULTRY

CRANBERRIES

FISH

KELP

LIVER

SHELLFISH

STRAWBERRIES

SEAWEED

SHRIMP

EGGS

IODIZED TABLE SALT

BAKED POTATO

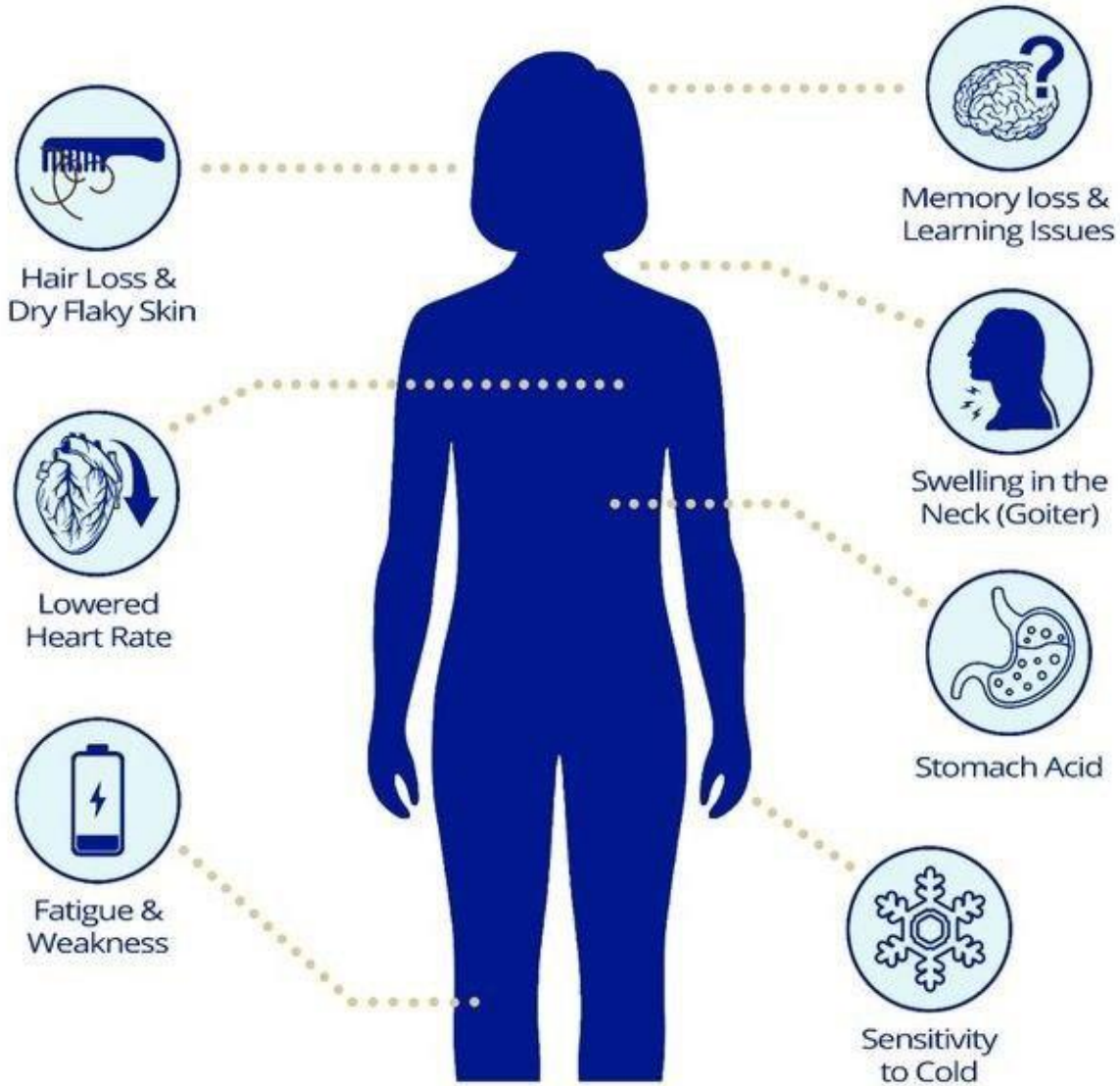
MILK & YOGURT

Iodine Deficiency Disorders (IDD)

- Insufficient iodine intake leads to thyroid dysfunction.
- Affects pregnant women and young children most severely.
- Global public health issue in areas with iodine-deficient soil.

Symptoms and Consequences of IDD

- Goiter (enlarged thyroid gland)
- Hypothyroidism (fatigue, weight gain, cold intolerance)
- Cretinism in newborns (severe mental and physical retardation)
- Cognitive impairment and developmental delays in children


Hair Loss &
Dry Flaky Skin
Lowered
Heart Rate
Fatigue &
Weakness
Memory loss &
Learning Issues
Swelling in the
Neck (Goiter)
Stomach Acid
Sensitivity
to Cold

Prevention and Treatment of IDD

- Universal salt iodization (USI) – iodized salt consumption
- Dietary intake of iodine-rich foods
- Iodine supplements for pregnant women in deficient regions
- Public health policies for iodine fortification

Conclusion

- Vitamin A and Iodine deficiencies are major global health concerns.
- Preventable through dietary intake, supplementation, and fortification programs.
- Public health interventions are essential to reduce their burden.

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Community Health Services

Preschool and School Health Services: Growth, Nutrition, Vaccination, and Health Programs

Introduction to Child Health Services

Definition: Child health services are preventive and curative health programs aimed at promoting physical, mental, and social well-being in children.

Importance:

- Ensures healthy growth and development.
- Prevents infectious diseases.
- Promotes healthy behaviors from an early age.

Preschool Health Services

Preschool health services target children aged 0-5 years, with a focus on early childhood development.

A. Growth and Development Monitoring

- Regular checkups to track height, weight, and developmental milestones.
- Screening for developmental delays (e.g., speech, motor skills).

B. Nutrition and Feeding Guidelines

- Exclusive breastfeeding for the first 6 months, followed by a balanced diet.
- Preventing malnutrition and deficiencies (e.g., iron, vitamin D).
- Addressing feeding difficulties and food allergies.

C. Vaccination and Immunization Programs

Essential vaccines for preschool children:

- BCG (Tuberculosis),Polio, Hepatitis B, DTP (Diphtheria, Tetanus, Pertussis), MMR (Measles, Mumps, Rubella), Influenza (Recommended)

D. Common Health Issues in Preschoolers

- Respiratory infections (e.g., pneumonia, flu).
- Gastrointestinal infections (e.g., diarrhea).
- Skin conditions (e.g., eczema, rashes).
- Behavioral and emotional disorders.

E. Role of Parents and Caregivers

- Encouraging hygiene practices (handwashing, dental care).
- Ensuring proper nutrition.
- Following immunization schedules.

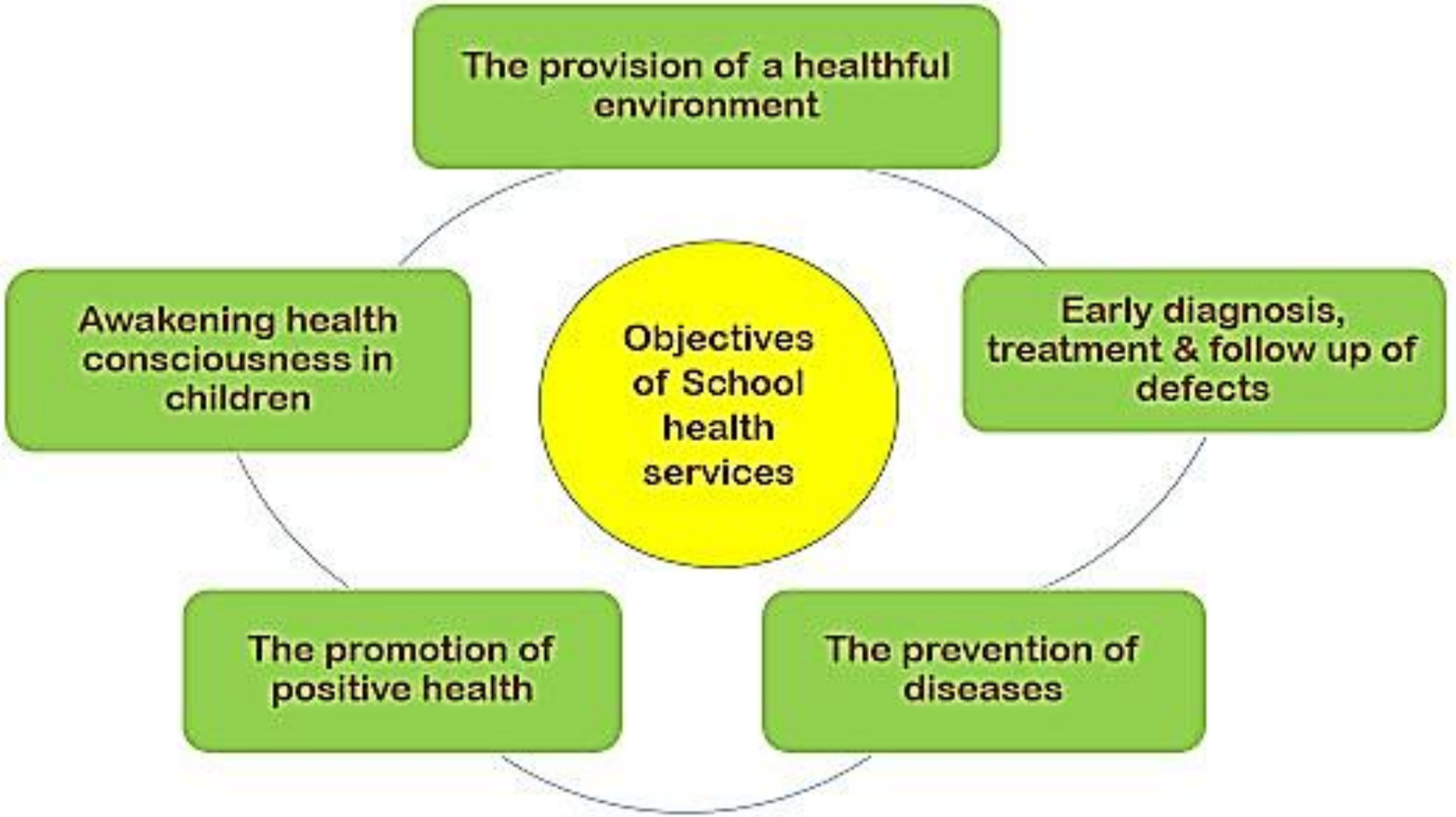
- **Definition of School Health**

School health refers to a state of complete physical, mental, social, and spiritual well-being and not merely the absence of disease or infirmity among pupils, teachers, and other school personnel.

- **Definition of School Health Services**

School health service refers to need-based comprehensive services rendered to pupils, teachers, and other personnel in the school to promote, protect, prevent, and control disease and maintain their health.

Objectives of School health services



Components of School Health Programme

- Health evaluation of school children and school staffs
- Remedial measures and follow-up
- Prevention of communicable diseases
- Healthful school environment
- Nutritional services
- First aid and emergency care
- Mental health

- **Other School Health Components**
- Dental health
- Eye health
- Health education
- Education of handicapped children
- Maintenance and use of school health records

School Health Team

- The school principal
- The school teacher
- The parents
- The community
- The children
- The medical officer
- The school health nurse

School Health Services

School health services are designed to support children aged 6-18 years, focusing on preventive care, health education, and intervention.

A. Routine Health Screenings

- Vision and Hearing Tests: Detect early signs of impairments.
- Dental Checkups: Prevent cavities and oral diseases.
- Growth Assessments: Monitor BMI and detect malnutrition.

B. Health Education and Promotion

- Personal hygiene (handwashing, oral care).
- Nutrition education (healthy eating habits).
- Physical activity programs (reducing obesity risks).
- Awareness about substance abuse prevention.

C. School Nutrition Programs

- Providing healthy meals to prevent malnutrition.
- Addressing childhood obesity through balanced diets.

D. Management of Infectious Diseases

- Vaccination programs for school-aged children.
- Preventing outbreaks (e.g., COVID-19, measles).
- School nurse interventions for minor illnesses and injuries.

E. Mental Health and Emotional Well-being

- Counseling services for students with anxiety or stress.
- Anti-bullying campaigns.
- Special education support for children with disabilities.

Comparison Between Preschool and School Health Services

Aspect	Preschool Health Services	School Health Services
Target Age Group	0-5 years	6-18 years
Focus Areas	Growth, nutrition, vaccination, early development	Health screenings, education, mental health, disease prevention
Key Providers	Pediatricians, nurses, caregivers, parents	School nurses, teachers, counselors, health educators
Common Issues	Malnutrition, infections, developmental delays	Obesity, mental health, substance abuse, injuries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Community Health Services

Definition

- A learning disability is a neurological condition affecting how the brain processes information.
- It is not related to intelligence but affects specific learning abilities.

Common Types of Learning Disabilities

- 1. Dyslexia – Difficulty with reading and language processing
- 2. Dyscalculia – Difficulty with math concepts
- 3. Dysgraphia – Difficulty with writing
- 4. Auditory Processing Disorder (APD) – Trouble interpreting sounds
- 5. Visual Processing Disorder (VPD) – Difficulty understanding visual information

Causes of Learning Disabilities

- Genetic factors
- Brain injury or trauma
- Prenatal or perinatal issues
- Environmental factors (e.g., toxins, poor nutrition)

Signs and Symptoms

- Trouble reading, writing, or spelling
- Difficulty with math and problem-solving
- Poor memory and organization
- Struggles with following instructions
- Coordination difficulties

Diagnosis and Assessment

- Observations by teachers and parents
- Standardized tests (IQ, achievement tests)
- Neuropsychological assessments
- Speech and language evaluations

Impact on Daily Life

- Academic struggles
- Low self-esteem and frustration
- Difficulty in social interactions
- Workplace challenges

Strategies for Supporting Individuals

- Individualized Education Plans (IEPs)
- Multi-sensory teaching methods
- Technology aids (text-to-speech, audiobooks)
- Encouragement and motivation

Role of Teachers and Parents

- Early identification and intervention
- Supportive learning environment
- Encouraging strengths and talents
- Teaching self-advocacy skills

Myths vs. Facts

- Myth: Learning disabilities mean low intelligence.
- Fact: Individuals can have normal or above-average intelligence.
- Myth: Kids will outgrow learning disabilities.
- Fact: They persist but can be managed effectively.

Prevention Strategies

1. Prenatal Care:

Avoiding alcohol, tobacco, and drugs during pregnancy
Proper nutrition and regular medical checkups

2. Early Childhood Development:

Encouraging cognitive and language development through reading and interactive play
Ensuring a stimulating and supportive learning environment

Prevention Strategies

3. Healthy Lifestyle & Environment:

Reducing exposure to environmental toxins (e.g., lead, pesticides)

Providing a balanced diet rich in essential nutrients

4. Early Screening & Intervention:

Regular developmental checkups and educational assessments

Addressing speech, hearing, or vision issues early

5. Educational Support & Parental Involvement:

Encouraging adaptive learning strategies


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