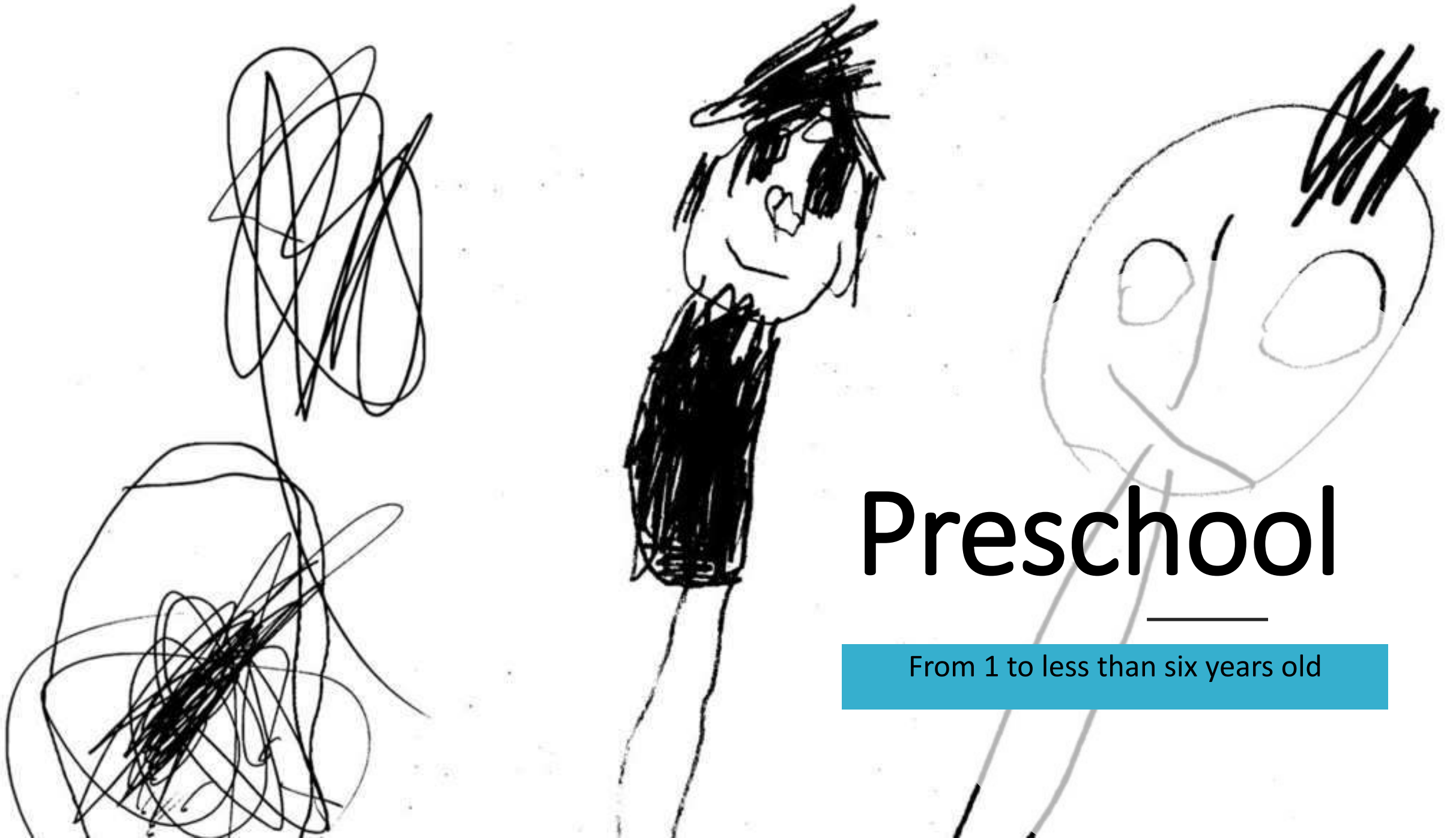


# School Health

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# Preschool

From 1 to less than six years old



- **Characteristics of preschool period:**

- 1. High morbidity and mortality.**
- 2. Malnutrition**
- 3. Injuries**
- 4. Increased Growth and development**



# 1) High morbidity and mortality

## Morbidity: Infectious and parasitic diseases

- o Communicable diseases: ARI, chicken pox, whooping cough, rubella
- o Diarrheal diseases, enteric and hepatitis A.
- o Skin diseases such as impetigo, scabies and fungal diseases.
- o Parasitic infestations such as Enterobius vermicularis (pinworms) and ascaris.

**High mortality (Remember indicators of children mortality and causes).**



## 2) High prevalence of malnutrition

Malnutrition is prevalent among preschool children due to:

- o Hyperactivity and lack of interest in food.
- o Inappropriate feeding practices
- o High prevalence of infectious and parasitic diseases
  - o Protein Energy Malnutrition PEM (mild, moderate and severe)
  - o Micronutrient deficiencies: iron deficiency anemia, vitamin A deficiency and iodine deficiency. Rickets.





### 3) High incidence of injuries



Preschool children are more prone to injuries.

They are curious, energetic and excited to explore the environment, they have limited coordination (Developing motor skills), lack of Judgment (Unable to assess risks)

Most injuries occur where children spend the most active portion of their day (home, nursery or playgrounds).

#### Injuries such as:

- ❖ **Falling** (same level or downstairs, bicycles) **causing head injuries or fractures.**
- ❖ **Poisoning** (Ingestion of drugs, Household liquids (kerosene, potash, insecticides, plants).
- ❖ **Choking and Suffocation** (small objects or toys in their mouth, plastic bags)
- ❖ **Drowning**
- ❖ **Burns or scalds** (hot stoves, irons, or hot liquids or steam)
- ❖ **Electric shock.**
- ❖ **Cuts and bruises**
- ❖ **Traffic Accidents**

#### **Injuries are mostly preventable**

Efforts to reduce preschool injury rate should focus on the promotion of safety of conditions and practices at:

1. homes,
2. kindergardens
3. play grounds

# 4) Growth and development

- **Growth:**
  - Steady growth during preschool years.
  - Less chubby, more slender with adult-like body proportions (U/L >1.0).
  - Increased muscle size and sturdier bones.
  - By age six, boys are generally taller and heavier than girls.
- **Development:**
  - Improved motor skills: gross (jump, climb, kick, swing) and fine (draw, use scissors, print name).
  - Expanded language use (sentences).
  - Emotional growth: control temper, show affection, and identify feelings.
  - Awareness of body, genital parts, and sex differences.
  - Can control urine and bowel.
  - Egocentric (thinking less awareness of other perspectives), magical, and illogical thinking.



verywell



verywell



# School:



An institution where students learn through defined studies under teachers' guidance, supported by staff like principals and supervisors, typically in a single building.



## 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**.

## School-aged Health Services

Refers to providing need based comprehensive services to pupils to promote and protect their health, control diseases and maintain their health.



# Why is school health an important component of community health?

1. **Substantial Population:** School children make up a significant portion of the population (20% in Jordan, 2016).
2. **Vulnerability:** Children face physical, mental, emotional, and social growth stresses.
3. **Socio-economic Factors:** different socio-economic and cultural backgrounds influence health and nutrition, requiring targeted support.
4. **Accessibility:** Schools are the first contact for health services for many children.
5. **Cost-effectiveness:** Promotes health, ensuring children maximize educational benefits.
6. **Health Education:** Schools shape future healthy habits as children spend a third of their time there.





خريجون مدرسة السلط الثانوية ١٩٣٩ - ١٩٤٠



مدرسة الكرك الثانوية 1939



# Components of School Health programme



## Medical inspection and assessment:

- Routine, periodic medical examination is designed to detect defects that require medical attention.
- It includes screening for defects of hearing and sight.
- Assessment of the **growth and development** of the child using growth charts and developmental tables.



# Prevention and control of health hazards

- **Main health problems among school children:**

1. Infectious diseases
2. Parasitic diseases
3. Malnutrition
4. Accidents
5. Psychological and social problems
6. Disabilities

# 1. Infectious diseases:

**School pupils are more liable to communicable diseases due to:**

- **Immature Immune Systems:** Younger children may have less developed immunity, making them more susceptible to infections.
- **Exposure to Infected Peers** Pupils are gathered in schools from different areas and with different health problems.
- **Overcrowding at school** and in classrooms contributes to transmission of respiratory diseases.
- **Poor Hygiene Practices and unhealthy practices** (e.g. uncovered sneezing or coughing, sharing head caps or eating utensils, Inconsistent handwashing).

# 1. Infectious diseases:

## Forms of spread:

- **Sporadic:** infrequent scattered cases.
- **Outbreak:** Epidemic in a closed community.

## Types of infections:

- Respiratory tract infection (Common cold, mumps, varicella,. Etc)
- Gastrointestinal infections (stomach flu, foodborne illnesses ( typhoid, food poisoning, hepatitis A)).
- Contact infections (skin (lice, scabies), eye. Etc)



# Prevention of infectious diseases at school

- General measures:

- Sanitation of school environment.
- Health education of students, families and teachers about mode of transmission, complications and immunisation.

**Examples of simple personal health practices that can be promoted through health education include:**

- ▶ Regular and proper handwashing with soap and water, especially before eating and after using the restroom.
- ▶ covering coughs and sneezes,
- ▶ Avoiding Sharing Personal Items: Educating against sharing combs, towels, or water bottles to prevent the transmission of infections.
- ▶ Promoting health through proper nutrition, regular physical activity, and spending time in open-air environments.



# Prevention of infectious diseases at school

## Special measures:

### I. For students:

#### 1) Active immunization at school entry against:

- Diphtheria, tetanus (DT) booster dose.
- TB (BCG)
- Polio vaccine
- Meningococcus vaccine

#### 2) Chemoprophylaxis

- Rifampicin for contact in meningococcal meningitis
- Long acting penicillin for Rheumatic Fever
- INH for TB
- Erythromycin for pertussis

### II. For school personnel:

1. Preemployment and periodic medical examination
2. Health education for healthy habits
3. Supervision during work
4. Emergency Preparedness



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# Measures for control of communicable diseases at schools

**A. Daily and continual observation** of the pupils in the morning before entering the classrooms: for detection of any deviation from normal (الطابور الصباحي)

**B. Examination of the absentees records:** It is important to know the cause of absence among pupils particularly during epidemics.

**C. Sick Pupils :** should be excluded from the school

**D. Readmission to school after sickness:**

medical examination or certain investigations should precede readmission.

Physician's written report that the child is in a non-communicable state should be provided.



# Measures for control of communicable diseases at schools


## E. Care for contacts:

- Observation for longest incubation period
- Chemoprophylaxis might be required in some diseases
- Mass treatment for household contacts (e.g. scabies)
- Health education

## F. Care for convalescence (التعافي):

- Most pupils who have been ill return to school during the period of convalescence.
- Their resistance to other infections is low so, full participation in physical education activities should be avoided.
- Also, children should be observed carefully for signs of possible complication.

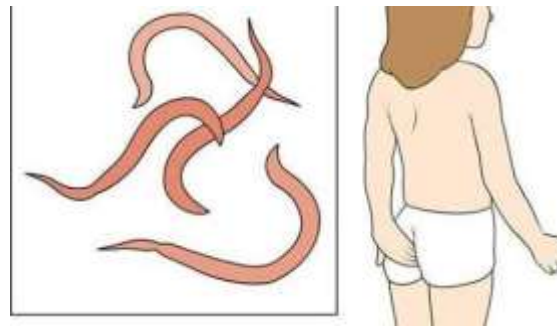
## G. Searching for the source of infection



Outbreak of  
communicable diseases

- **If children or staff develop similar symptoms one after another and the incidence is higher than usual, occurrence of outbreak is suspected.**

## 2. Parasitic diseases



1. *Enterobius vermicularis*- pinworm (The most prevalent, easy spread by hand to mouth infection).
2. *Ascaris*
3. *Giardia lamblia*: an important etiological agent of recurrent diarrheal disease.
4. *E.histolytica*, *Taenia saginata*, *Ancylostoma*, and *Schistosoma* in endemic areas.

### Prevention and control:

- General measures
- Case finding (urine and stool examination)
- Treatment and re-evaluation of cases.

# 3. Malnutrition problems



**Protein deficiency malnutrition** disorders :impairment of growth (wasting and stunted growth)

**Iron Deficiency:** Anemia IDA

**Riboflavin (B2) deficiency :** causing angular stomatitis and cheilosis.

**Vitamin (A) deficiency:** skin and ocular manifestations and decreased resistance to infections.

**Dental caries**

**Overweight and childhood obesity**



Biology





# 4. School accidents and emergencies

**Emergencies commonly found in schools are:**

- ▶ Accidents with effects range from minor inconvenience and pain to extended disability and death.
- ▶ Medical emergencies: appendicitis, gastroenteritis, colic, epileptic fits and fainting, coma, epistaxis.

Injuries are the leading cause of death among the school-age children.

## • Causes and factors :

1. Poor environmental conditions at school
2. Overcrowding
3. Unsuitable site of school (Example: near traffic roads)
4. Risky or violent behaviours among pupils

## Prevention:

1. Applying safety measures at school and its surrounding
2. Supervision of children while at school

# Safe school environment

**Includes:**

**1. Physical environment.**

**2. Psychosocial and emotional environment.**

**3. Academic Support.**

# Healthy School environment:

## 1. A Healthy Physical Environment

- A clean and safe physical environment helps to prevent injuries, diseases and facilitates desired- health behavior.

### This includes:

1. Safe and sanitary school facilities
2. Building and classrooms
3. Meal service
4. Play facilities



# Healthy School environment

## 1. Safe and sanitary school facilities:

### A. Site and Area of school should be:

- Away from noise and pollution
- Easily reached by pupils from the entire area it serves and of adequate size.
- At least 20 meters away from main streets.

### B. Safe water supply should be accessible.

In Jordanian public schools, water is delivered through public water networks or by water tankers.

Standard in Jordan: One tap/50 student and One drinking fountain/50 student

### C. Safe and sanitary disposal of waste (water and solid waste)

68% of the schools in Jordan are not connected to public waste water networks, they have septic storage tanks.

Standard in Jordan: One toilet/ 50 student

# Healthy School environment

## 2. Building and classrooms:

### A. Regulations of healthy school building and classrooms

- **Jordan's standard for Classroom area:** not less than 16m<sup>2</sup>
- **Classrooms should be rectangular in shape with space area of 0.8-1.3 m<sup>2</sup> per child.** Less than 0.8 m<sup>2</sup> is considered to be severely crowded.
- **Distance between wall and last seat: not more than 6m**



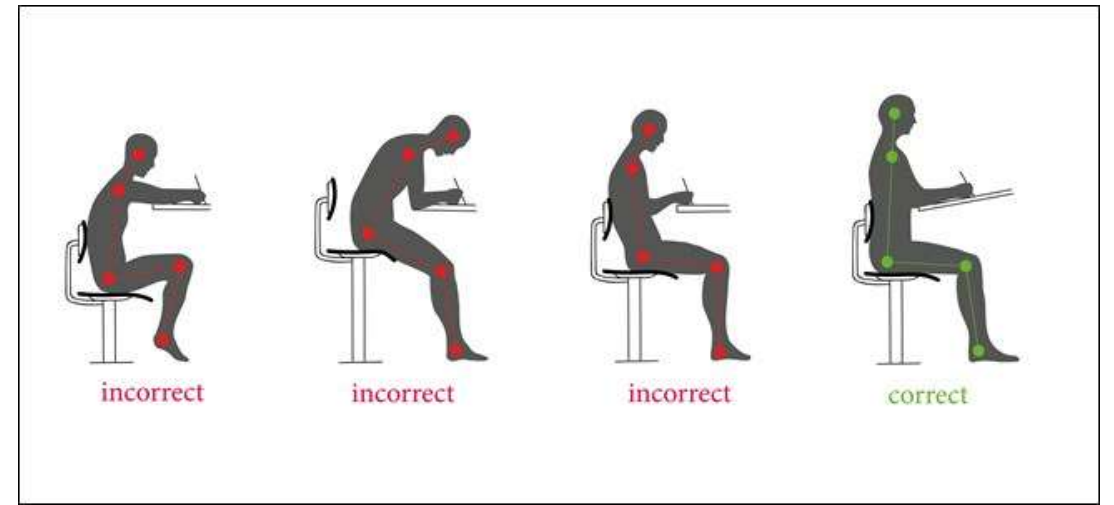
**B. Fire protection:** building constructed of fire-resistant material, fire extinguishers, fire alarms, exits and fire escapes, all should be available.

## c. Classroom furniture

**Classroom Setup:** The blackboard should be **centered** and **at least 1.5 meters from the first row of desks.**

**Desks and seats** should allow students' feet to touch the ground and support proper posture for reading and writing.

**Hazards of Improper Furniture:** Causes discomfort, reduced attention, and potential backbone deformities.





# D. Ventilation and lighting

- **D. Ventilation and Lighting**

- **Ventilation:**

- Ensure windows cover at least **20% of floor area** for adequate air circulation.
- Position windows on opposite sides for **cross ventilation**.
- **Hazards of Poor Ventilation:** Spread of infections, discomfort, fatigue, and sleepiness.

- **Lighting:**

- **Natural:** Use sufficient window area.
- **Artificial:** Supplement with electrical lighting.
- **Hazards of Poor Lighting:** Eye strain, fatigue, and conjunctivitis.



# Healthy School environment

- **3. Meal Service:**
- **Healthy Standards:** Meals should meet health and safety regulations.
- **Limit Processed Foods:** Avoid sugary and processed items; prohibit carbonated beverages, gum, and candy.
- **Hydration:** Promote water as the main beverage; limit sugary drinks.
- **Food Safety:** Ensure proper handling, storage, and preparation to prevent foodborne illnesses; only pasteurized milk should be provided.
- **Lunchroom (if available):** Maintain cleanliness, adequate lighting, ventilation, and an attractive atmosphere.
- **Mid-day School Meal:**  
Provide a **nutritious meal (one-third of daily caloric and half of daily protein requirements).**  
Include specific nutrients like **fortified biscuits with iron** to prevent deficiencies.



# Healthy School environment

## 4. Play facilities:

- **Playground:** Provides outdoor space for fresh air, exercise, and social interaction.
- **Jordan's Standard:** **2 m<sup>2</sup> per student.**
- **Current Situation:** 45% of schools lack playgrounds due to limited space or unpaved areas.
- **Sports Equipment:** Available in 77% of schools, with sports balls being the most common item.



# Healthy School environment



## 2. Psychosocial, emotional and academic:

- ▶ The psychosocial environment can help students grow into active contributing members of society.
- ▶ **This includes:**
  - Positive student and teacher relationships:
    - Starting the year with high expectations,
    - Encouraging student involvement,
    - Making the classroom visually appealing,
    - Parents' involvement,
    - Using effective praise and effective feedback.
  - Inclusiveness and Equity
  - Violence prevention in schools (protected from harm (bullying) and from cruel or humiliating punishments)
  - *(In Jordan 46.6% of students get in a physical fight one or more times in a year and 46.4% of students were bullied on one or more days in a month)*
  - Disciplinary interventions that promote student socio-emotional development,
  - Maintaining reasonable workloads,
  - Helping students see the value and purpose of learning beyond the classroom context and grades.



# School-aged health in Jordan

- Jordan joined UNICEF's "Child Survival Revolution" IN 1980. Since then, the Ministry of Health has made the vaccination card a requirement for entry into the school system.

**Healthy Schools National Accreditation** program has been conducted since 2008 with the Ministry of Health (MOH) and the Ministry of Education (MOE).



**Queen Rania**  about 7 years ago 

الملكة رانيا خلال زيارته إلى مدرسة البيار المهنية الثانوية للبنات لتكريم المدارس التي تم اعتمادها ضمن برنامج الاعتماد الوطني للمدارس الصحية الذي تنفذه الجمعية الملكية للتوعية الصحية  
عمان، الأردن/ 21 شباط 2017

Queen Rania visits Al Bayader Vocational Secondary School for Girls to honor the schools accredited by the Royal Health Awareness Society's Healthy Schools National Accreditation project  
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