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Assessment Of  
Kindergarten Children Health,  
In The Southern Provinces of Palestine,  
In The Scholastic Year 1998/99.

A Thesis

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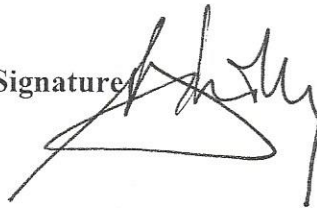
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# Table of Contents

Dedication.....	II
Acknowledgements.....	III
Survey team .....	IV
Table of Contents .....	VII
List of tables and figures.....	XI
Abstract .....	XIV
Introduction.....	XVII

## **Chapter 1- Situation analysis**

1.1 Background .....	1
1.1.1 The Geographical Features of the Area.....	1
1.1.2 The historical features of the area.....	1
1.1.3 The political features of the area.....	3
1.1.4 Population .....	4
1.1.5 The economical situation .....	5
1.1.6 Environment.....	7
1.1.7 Public Services in the Gaza Strip.....	8
1.1.7.1 Education .....	8
1.1.7.2. Health Services .....	12
1.1.8 Health status .....	17
1.2 Target diseases and conditions .....	19
1.2.1 Growth Anemia and Parasitic Infestations .....	19
1.2.2 Hearing Impairment.....	27

# Table of Contents

Dedication.....	II
Acknowledgements.....	III
Survey team .....	IV
Table of Contents .....	VII
List of tables and figures.....	XI
Abstract .....	XIV
Introduction.....	XVII

## **Chapter 1- Situation analysis**

1.1 Background .....	1
1.1.1 The Geographical Features of the Area .....	1
1.1.2 The historical features of the area.....	1
1.1.3 The political features of the area .....	3
1.1.4 Population .....	4
1.1.5 The economical situation .....	5
1.1.6 Environment.....	7
1.1.7 Public Services in the Gaza Strip .....	8
1.1.7.1 Education .....	8
1.1.7.2. Health Services .....	12
1.1.8 Health status .....	17
1.2 Target diseases and conditions .....	19
1.2.1 Growth Anemia and Parasitic Infestations .....	19
1.2.2 Hearing Impairment.....	27

1.2.3 Vision Impairment .....	31
1.2.4 Heart Diseases .....	33
1.2.5 Abdominal masses.....	34
1.2.6 Hernias.....	35
1.2.7 Undescended testis.....	35
1.2.8 Dental Problems .....	35

## **Chapter 2- Methodology**

2.1 study Justification .....	37
2.2 Methodology .....	38
2.2.1 Aim.....	38
2.2.2 Objectives .....	37
2.2.3 The nature of the study .....	38
2.2.4 The study population.....	39
2.2.5 Sampling.....	39
2.2.5.1 Sample frame.....	39
2.2.5.2 Sample size.....	40
2.2.5.3 Sampling technique.....	40

## **Chapter 3- Designing the survey**

3.1 Components of surveying protocol .....	42
3.2 The examination protocol of the target conditions .....	43
3.2.1 Growth Assessment.....	43
3.2.1.1 Indicators.....	43
3.2.1.2 Operational case definition.....	43

3.2.1.3 Technique .....	44
3.2.2 Parasitic infestation .....	45
3.2.2.1 Operational case definition .....	45
3.2.2.2 Technique .....	45
3.2.3 Anemia.....	45
3.2.3.1 Indicator .....	45
3.2.3.2 Case definition.....	45
3.2.3.3 Technique .....	46
3.2.4 Vision Impairment .....	46
3.2.4.1 Operational case definition .....	46
3.2.4.2 Technique .....	46
3.2.5 Hearing Impairment.....	47
3.2.6 Suspected Heart Diseases.....	48
3.2.7 Abdominal masses.....	48
3.2.8 Hernias and undescended testes.....	49
3.2.8.1 Operational case definition .....	49
3.2.8.2 Technique .....	49
3.2.9 Dental health.....	49

## **Chapter 4- Implementation**

4.1 Preparation .....	51
4.2 Data management.....	52

## Chapter 5- Results

5.1 Sample Characteristics .....	54
5.1.1 Sample distribution .....	54
5.2 Social, Economical, And Environmental Findings.....	56
5.2.1 Family size .....	56
5.2.2 Child sequence .....	56
5.2.3 Parent education .....	57
5.2.4 Mother (work status) .....	58
5.2.5 Father Occupation .....	58
5.2.6 Fathers working status .....	59
5.2.7 Family Average Monthly Income.....	59
5.2.8 Child Daily Pocket Money .....	60
5.2.9 House Ownership .....	61
5.2.10 House Type.....	61
5.2.11 Crowding.....	62
5.2.12 Housing condition .....	62
5.3 Medical findings .....	63
5.3.1 Growth .....	63
5.3.2 Hemoglobin.....	70
5.3.3 Parasitic infestations .....	72
5.3.4 Eye Related Conditions.....	73
5.3.5 Ear related conditions .....	73
5.3.6 General Medical and Surgical Conditions .....	74

Chapter 6- discussion .....	80
Chapter 7 Conclusion and Recommendation .....	91
References .....	95
Annexes.....	106

### List of tables and figures

Table (1) Size and distribution of the sample.....	41
Table (2) Sample Distribution by District, Locality Type, and Child Sex .....	54
Table (3) Sample population distribution according to the age and sex.....	55
Table (4) Distribution of the child's brothers and sisters .....	56
Table (5) distribution of study population according to the Child order .....	57
Table (6) Distribution of child parents according to the years of their education .....	57
Table (7) Distribution of Mothers according to work status .....	58
Table (8) Distribution of study population according to the father Occupation .....	58
Table (9) Children fathers distributed according to the working status .....	59
Table (10) Distribution of study population by the family Average monthly income .....	69
Table (11) Child Daily Pocket Money.....	60
Table (12) the distribution of study population according to the House Ownership .....	61

Table (13) the distribution of study population according to the House Type.....	61
Table (14) the distribution of the study sample categorized according to the crowding in their house.....	62
Table (15) Number of Houses that have water, electricity, proper waste disposal and are away from any waste hazards .....	63
Table (16) distribution of <b>male</b> study population according to their <b>Weight/Age</b> .....	64
Table (17) distribution of <b>female</b> study population according to their <b>Weight/Age</b> .....	64
Table (18) distribution of <b>male</b> study population according to their <b>Height/Age</b> .....	66
Table (19) distribution of <b>female</b> study population according to their <b>Height/Age</b> .....	66
Table (20) distribution of <b>male</b> study population according to their <b>Weight/Height</b> .....	68
Table (21) distribution of <b>female</b> study population according to their <b>Weight/Height</b> .....	68
Table (22) Distribution of study population according to their hemoglobin Level.....	70
Table (23) the study population distributed according their hemoglobin concentration and child sex .....	71
Table (24) the distribution of study sample according to their eye Conditions.....	73

Table (25) the distribution of the study population according to their ear and hearing conditions.....	74
Table (26) the distribution of study sample according to their general medical conditions .....	75
Table (27) Number and percent of children with caries experience .....	76
Table (28) The average of dental disease among the study sample .....	76
Table (29) The distribution of caries experience (DMF) among the study sample by sex, area and locality .....	78

## Abstract

In Palestine the kindergarten children represent a large and important sector with little knowledge about their health status. The aim of this Cross-sectional descriptive study is to figure out the health profile of these children in the southern provinces of Palestine in order to identify their health needs, and to establish a base line data for any future intervention.

The study population is Palestinian children 4-5 years old living in the southern province of Palestine. They are enrolled in the registered kindergartens in the scholastic year 1998/99. This population is estimated at 21,767 child distributed in 209 registered kindergarten. They represent about 30% of this age group in Gaza strip. The size of the selected main sample is 2093 children, and the actual responded sample is 1820 children distributed all around the Gaza strip districts and represent its different demographic feature. Different sets of sample size are drawn according to nature of the targeted medical conditions.

The study includes questionnaire, which targeted the socioeconomic and environmental factors influencing the health status of kindergarten children as well as physical and medical examination, laboratory tests, assessment includes: -

Growth, Anemia, Parasitic infestations, Vision impairment, Hearing impairment, Heart diseases, Abdominal organomegaly, Hernias, Undescended testis, and Dental health.

The study is implemented according to a-defined survey protocol that includes operational case definition, survey technique, and the screening tests. The results of the socioeconomic part of the study show that the study sample represents

smaller families with higher socio-economic level than the general population. These families are keener to send their children to the kindergarten.

The results of the medical part of the study show that severe malnutrition are almost not present but 18% of the male children are mildly underweight and about 2% are moderately underweight. For females 12.7% are mildly underweight and 1.7% are moderate to severe underweight. 24.6% of the male and 22.8% of the female children are mildly under height and 6.9% of both male and female children are either moderately or severely short. The study results did not show significant differences between male and female children.

Anemia is not a major problem among kindergarten children where only 6.5% of the study population have their blood hemoglobin level below 11 gram/deciliter. The prevalence of parasitic infestation among the study population ranges from high prevalence for *Gardia* (22%), and *Entameba* (20%), and the moderate prevalence of *Entrubious Vermicularis* is at (12%), and the *Ascaris* at (6%). It is low in the case of *H. Nana* (2%). The overall prevalence of intestinal parasitic infestation is (54%).

The prevalence of unspecified vision impairment is 31.9 per thousand, and that of squint is 5.5 per thousand, and conjunctivitis is 12.6 per thousand. About 18% of the study population failed the audiometric test while 8% did not cooperate and could not be tested. About 18% failed the Tympanometric test, and about 10% of the study population shows clinical signs of *Otitis media*.

The prevalence of the suspected heart disease is 4.4 per thousand, undescended testes is 28.9 per thousand, hernia is 9.3 per thousand, and organomegaly 1 per thousand.

The results of this study highlight the size of the dental health problem among this age group. About half of the examined children show one or more carious tooth.

The DMF of the study population is (1.8), There is a large number of caries (1.6) few extracted .14 and very few filled teeth.(04). In spite of the large size of the dental problem only few of the children have any kind of medical intervention – most of it is bad and too late – extraction 10% – and only about 2.3% of them have chance for proper treatment –filling.

Most of the discovered health problems are preventable and early intervention will be beneficial. The main recommendation of the study is to establish a new or extend the existed school health program to address the health needs of the kindergarten children. This program should be comprehensive and tailored according to the peculiarities of this age group. The study screening protocol and the experience gained during its implementation could be useful resources in designing such program.