

# بسم الله الرحمن الرحيم









شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





## جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغيار







بعض الوثائق

الأصلية تالفة

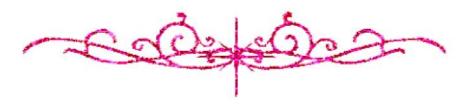


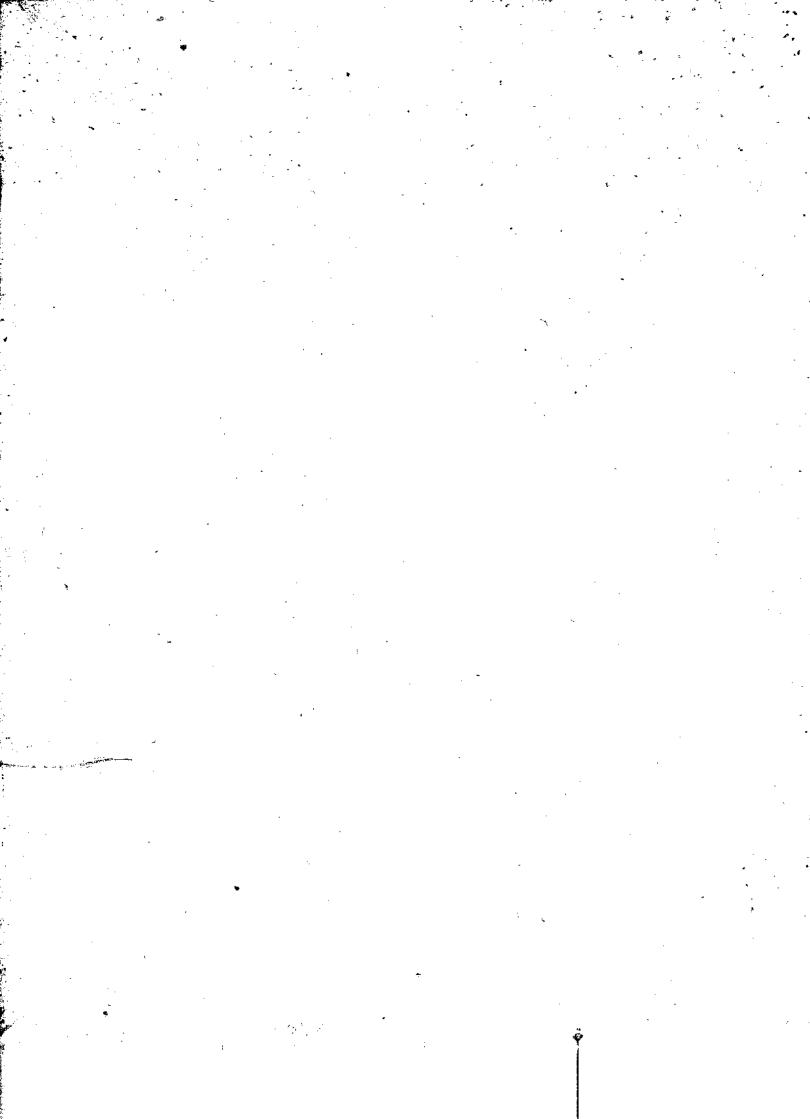




بالرسالة صفحات

لم ترد بالأصل





PRIMARY IMMUNIZATION COVERAGE OF CHILDREN IN RURAL
ASSIUT GOVERNORATE AND ITS IMPACT ON THE CHILD'S HEALTH
PROFILE IN THE SECOND YEAR OF LIFE

BY

FARAG MOHAMED MOFTAH MOHAMED M.B.B.Ch, M.P.H.

Thesis
Submitted to the High Institute of Public Health
in Partial Fulfilment for the Degree of

DOCTOR OF PUBLIC HEALTH ( MATERNAL and CHILD HEALTH )

Alexandria University 1988 Supervisors

nume of Elphon

Professor of Family Health
Department of Family Health
High Institute of Public Health
Alexandria University

Hammam M. Hammam

Professor and Chairman

Community medicine Department

Faculty of Medicine

Assiut University

Mona M. Mortada

Assistant Professor of Family Health

Department of Family Health

High Institute of Public Health

Alexandria University

#### ACKNOWLEDGMENT

I am very much proud and deeply honoured of being supervised by Prof. Ahamed F. EL-Sherbini, Professor of Family Health, High Institute of Public Health, Alexandria University, who offered me the utmost care and sincere encouragment.

I am really pleased to acknowledge with gratitude the expert assistance, skillful guidance and confidence of Professor Hammam M. Hammam, Head of the Department of Community Medicine, Faculty of Medicine, Assiut Universty.

I am also deeply indebeted to Dr. Mona M. Mortada, Assistant professor, Family Health Department, High Institute of Public Health, Alexandria University.

I am very grateful to Dr. Mohamed A. EL-Torky, Assistant professor of community Medicine, Faculty of Medicine, Assiut Universaty for his advice, continuous guidance and help.

My sincere thanks are also to Prof. Emad E. Eid, Professor of Family Health, High Institute of Public Health, Alexandria University.

I would like to express my thanks to staff of computer unit, Community Medicine Department, for their kind help and cooperation during statistical analysis and writing the thesis.

I am grateful to all colleagues in the Family Health Department, High Institute of Public Health and also Community Medicine Department of Assiut University.

### LIST OF CONTENTS

CHAPT	PAC PAC	
I	NTRODUCTION	
ı -	-History of immunization3	
II -	-Immunization programmes and different vaccines14	
	-Cold chain47	
ıv -	-AIM OF THE STUDY60	
v -	-MATERIALS AND METHODS61	
vı -	-RESULTS	
_	Social and health services of the study area68	
-	-Vaccination coverage95	
-	-Morbidity patterns121	
-	-Growth patterns138	
vii -	-DISCUSSION144	
viii-	-RECOMMENDATIONS161	
IX -	-SUMMARY164	
x -	-REFERENCES170	
ANNEX	· · · · · · · · · · · · · · · · · · ·	

ARABIC SUMMARY.

#### LIST OF TABLES

	troduction		
5.N. I-	Recommended schedule for active immunization normal infants and children in USA	of	PAGE
II-	Schedute for active immunization of infants a children		.16
III-	Schedule of vaccination recommended by minist of health and family welfare, Government of India 1981	_	.17
IV-	WHO schedude of immunization		17
	Protective efficacy over 15 years of the BCG vaccine given in the Medical Research council Trial		-
VI-	Immunization coverage rates by vaccine and country in East Mediterranean region 1986	•••••	44
vii-	Reported Immunization trend as recorded by Mi of Health in Egypt	nistry	45
7111-,	Discrepancy rate between cluster survey and reported data 1984	• • • • • • • • •	45
IX-	Different vaccination coverage surveys in Egy	pt	46
х-	Temperature requirements and maximum storage times for five vaccines		48
XI-	Summery of survey finding on cold chain in Egypt 1984	•••••	53
XII-	Cold chain status in Assiut Governorate 1987.		54

#### LIST OF TABLES

s.N.	PAGE
ī.	-The number of schools and number of students as reported in 1985/198671
11	-Islamic schools in Assiut Governorate72
III	-The most important services of sociol affairs in Assiut 198673
VI	-Agricultural area in Assiut Governorate 198774
V	-Estimation population of Assiut Governorate 198678
VI	-The population pyramid of Assiut Governorate (census 1976) in percentages
VII	-The registered births in Assiut Governorate during 1/1/86 -31/12.198679
IIIV	~The registered deaths in Assiut Governorate during the period 1.7/86 -30/6/198780
IX	-Vital rates of Assiut Governorate in 198680
Х	-Amount of vaccines per year received fram Assiut store to the three districts 198792
Υĭ	-Vaccination coverage rate according to amount of vaccines received per year 198792
XII	-Vaccination coverage of rural Assiut children according to the place (1987)96
XIII	-B.C.G. coverage of rural Assiut children according to the place (1987)96
XIV	-DPT coverage of rural Assiut children according to the place (1987)99
XV	-OPV coverage of rural Assiut children according to the place (1987)99
XVI	-Dropout rate for DPT and OPV vaccines of rural Assiut children (1987)
XVII	-Measles vaccine coverage of rural Assiut children according to the place (1987)
XVIII	-levels of vaccination coverage by type of vaccine according to the place (1987)
XIX	-Vaccination coverage in different districts of the study from district health records (1987)105

XX	-Vaccination coverage from the records of health units in three districts (1987)
XXI	-Discrepancies between coverage rates as obtained from survey data and from records of district health 1987
XXII	-Discrepancies between coverage rates as obtained from survey data and from records of health units 1987
XXIII	-Discrepancies between coverage rates as obtained from survey data and expected coverage rate according to amount of vaccines obtained through 1987
XXIV	-Discrepancies between coverage rates as obtained from survey data and from records of district health by location 1987
VXX	-Discrepancies between coverage rates as obtained from survey data and from records of health units by location 1987
XXVI	-Discrepancies between coverage rates as obtained from survey data and expected coverage rate according to amount of vaccines obtained through 1987 by location
IIVXX	-Effect of birth order on vaccination coverage of rural Assiut children (1987)118
XXVIII	-Effect of family size on vaccination coverage of rural Assiut children (1987)119
XXIX	-Effect of social class on vaccination coverage of rural Assiut children (1987)120
XXX .	-Distribution of children below the different percentiles of WHO standard of weight for rural Assiut children according to vaccination coverage (1987)
XXXI	-Distribution of children below the different percentages of WHO standard of weight of rural Assiut children according to vaccination coverage (1987)
XXXII	-Distribution of children below the different percentiles of WHO standard of length of rural Assiut children according to vaccination coverage (1987)
XXXIII	-Distribution of children below the different percent of WHO standard of length of rural Assiut children according to vaccination coverage (1987)

	11 b
XXXIV	-Morbidity patterns according to vaccination coverage of rural Assiut children (1987)130
XXXX	-Percentage of measles attack of children by vaccination coverage 1987131
IVXXX	-Percentage of mumps attack of rural Assiut children by vaccination coverage 1987131
TIVXXX	-Percentage of chicken pox attack of children vaccination coverage 1987132
IIIVXXX	-Percentage of pertussis attack of children by accination coverage 1987132
XXXXX	-Attacks of diarrhea according to vaccination coverage of rural Assiut children (1987)135
XXXX	-Attacks of respiratory infection according to vaccination coverage of children (1987)135
XXXXI	-Attacks of otitis media according to vaccination coverage of rural Assiut children (1987)136
XXXXII	-Attacks of skin diseases according to vaccination coverage of rural Assiut children (1987)136
XXXXIII	-Attacks of eye diseases according to vaccination coverage of rural Assiut children (1987)137
VIXXXX	-Mean weight (kg) of rural Assiut children by age and vaccination coverage (1987)
xxxxv	-Mean length (cm) of rural Assiut children by age and vaccination coverage (1987)139
XXXXVI	-Percentage of breast fed children by vaccination coverage of rural Assiut children (1987)143
IIVXXXX	-Percentage of mixed fed children by vaccination coverage of rural Assiut children (1987)143
XXXXXIII	-Distribution of the mean weights of children according to district and sex 1987143

### LIST OF FIGURES

	ntroduction
S.N. I	-Immunization coverage-children under 12 months- Developing and developed countries. January 198740
II	-Reported immunization of Eastern Mediteranean regin for children aged less than 12 months 1981- 198642
III	-Global immunization coverage of DPT3 or polio343
VI	-Vaccine cold chain monitor58
V	-Interpretation of 10c and 38c monitor marks of cold chain59
B- F	Results -Assiut map69
II	-The population pyramid of Assiu Governorate (census 1976)81
III	-Organizatinal structure of health department at Governorate level87
IV	-Organization of the district health services88
V	-Flow diagram of the vaccination process in Assiut91
ΛI	-Vaccination coverage of rural Assiut children by location97
VII	-Vaccination coverage of Assiut district107
AIT.	I-Vaccination coverage of Manfalout district108
ΙX	-Vaccination coverage of Elghanayem district109
Х	-Mean weight of rural Assiut children in comparison to WHO standard140
ХI	-Mean length of rural Assiut children in comparison to