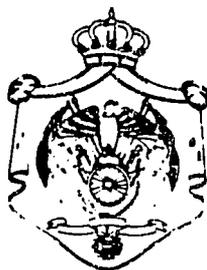


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MORBIDITY (DIARRHOEA) IN JORDAN

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Proposed Outline for the Study on
Morbidity (Diarrhoea)
"Jordan Fertility & Family Health Survey"

Introduction

- Definition of problem under consideration.
- Description of the importance of the problem.
- Review of literature available.
- Objectives of the research.

Chapter One: Description & analysis.

- Short review on method of survey.
- Short description of types & amount of data.
Collected and method of collection.
- Data presentation numerical & nerrative.
- Data Analysis.

Chapter 2:

Comparative analysis of the result with available studies, statistics and information.

Chapter 3:

Conclusion- Evaluation & Recomendation.

Diarrhea

Introduction

Definition: according to W.H.O

Diarrhoea under 2 years of age is a passage of loose stools more than 3 times a day without blood or mucus or passage of stool with blood and mucus once or more a day.

Diarrhoea more than 2 years of age is a passage of loose stools more than 2 times a day without blood or mucus or passage of stool with blood and mucus once or more a day. Acute watery diarrhoea is caused by a variety of infectious agents, whose actions later intestinal function by different mechanisms. For example, viruses replicate within mucosal cells, produce patchy but transient mucosal damage, and cause water and electrolyte secretion which is greatest during the healing phase.

In contrast, bacteria like vibrio cholera enterotoxigenic strains of escherichia coli are not invasive but colonize the mucosal surface and secrete an enterotoxin, which causes mucosal secretion without any apparent damage to mucosal cells.

Why is diarrhoea a problem?

Acute diarrhoea due to infections is second only in incidence to infections of the respiratory tract. In some developing nations diarrhoea attacks may occur as frequently as once every month during a child's second year of life. In these countries acute diarrhoea is probably the most common cause of death; It is certainly the major cause of mortality in small children. Cumulative age of 5 years are common in developing nations; 40% or more of these deaths, which are caused by dehydration of chronic malnutrition, are associated with acute diarrhoea. Malnutrition is often initiated by acute diarrhoea and is aggravated by each subsequent attack of diarrhoea.

Thus in most developing countries, owing to the frequency of diarrhoeal illness (especially in young children) and the resulting morbidity and mortality, acute diarrhoea is a considerable health problem and every effort is needed to bring it under control and to prevent serious consequences.

Objectives of the study

1. Obtaining the morbidity measures as incidence rate, prevalence rate.
2. Analysing the data and findings to know the distributions by geographical areas, age group, hospitals and health centres, months and cause of disease.
3. Assessment of the eradication and treatment activities to control the disease.
4. Recommending Practical ways to decrease the incidence.

Sources of Data

1. 1983 Jordan Fertility & Family Health Survey.
2. M.O.H Hospitals Record 1983.
3. Health Centers and V. Clinics Records 1983 P.H.care department.
4. M.O.H Statistical year Book.
5. Annual Report 1983- Department of Primary Health Care- Section of Diarrhoea Diseases & Cholera Control.
6. Morbidity study in out-Pt clinics in Al-Karak Governorate 1983, M₂ by Planning directorate.

Chapter 1 : Description & analysis

A. Short review on method of survey.

The Jordan Fertility & Family Health survey was conducted by the Jordan Department of statistics, with interviewing taking place between August 1 and the first week of October 1983. The sample was a self-weighting sample of households in the East Bank area of Jordan, and all over-married women 15-49 were selected as respondents. out of a total of 6,048 households, 3,939 completed individual interviews were obtained, representing a completion rate of 93 percent of all potential respondents.

Recent Diarrhea

Only 7.7 percent of children were reported to have had diarrhea in the 2 weeks before interview. Most received home remedies or commercial solutions as treatment. only 6 percent received complete oral rehydration salts.

As a result of continuing high birth rates and declining death rates, more than half of the Jordanian population is under 15 years of Age.

Diarrhea diseases have been identified as important causes of illness and death in many contries/one of the objectives of the 1983 Jordan Fertility and Family Health survey are to obtain.

Diarrhea incidence rates for a recent interval of time for children under 5 years of age, as well as type of treatment received.

Mothers were asked if any of their living children less than 5 years of age had diarrhea in the past 2 weeks.

The W.H.O definition of three or more loose watery, and/or bloody stools in a 24-hour period was used.

As shown in Table 4-6 , 7.7 percent of the 5,059 children in the sample were reported to have had diarrhea. Results were highest for children less than 2 years of age with rates in the range of 12-14 percent. The rate dropped to 6.8 percent for 2-year olds and to less than 4 percent for 3-4 year olds. The rate was 40 percent higher in rural areas (9.5 percent) compared with urban areas (6.8 percent). Diarrhea was reported more frequently by younger mothers, in smaller families and by mothers with higher education these three factors are probably all related to younger children for whom highest diarrhea rates were reported.

Differences in rates are shown by household characteristics in Table 4-7. Highest rates were reported for children in larger houses, when the source of drinking water was either a well or river, and for households with no private latrine; no refrigerator and / or no electricity.

Most children received some treatment; only 12.2 percent of mothers of children with diarrhea reported no treatment (Table 4-8). Treatment consisted of special commercially-available solutions or home remedies in most cases without any clear relationship to either the mother's residence or education. Treatment with complete oral rehydration salts was higher in major urban areas. The ORS program started in 1980 with USAID funds for a treatment clinic at Al-Basker Hospital in Amman. In 1982, ORS began to be distributed to all health centers, village clinics, hospitals and UNRWA clinics but is not available at MCH Centers.

DATA PRESENTATION- NUMERICAL AND
NARRATIVE

As it was mentioned previously that the total number of infants and children (under 5 years) who were included in the study sample (JFHFS) 1983 was 5659 and about 435 of them were having diarrhea during the two last weeks of the Fertility Survey (F.S).

Therefore the incidence rate of the disease among this group of the study sample during that period of time was .77/1000, and it pointed at a number of indicators and factors those which have influence on the incidence rate of diarrhoea between this group.

These indicators and factors are:

1. Children age group and incidence rate of diarrhea.

Table (4-6) shows No. of children (5659) and their age group, distribution is as such,

Less than one year.

One year.

Two Years.

Three years.

Four-Five years

The sample distribution according to the age group is as the following:

1149, 1059, 1131, 1156, 1173.

No. of diarrhea cases between them is as the following according to age group:

155, 130, 76, 40, 3, and the incidence rates of diarrhea cases are : 136, 123, 68, 35, 29/1000. And so for where ever the child's age increases the possibility

of incidence of diarrhea diarrhea decreases as his biological immunity against diarrhea increases.

11. Place of residence and the effect of urban and rural on the diarrhoea cases distribution

The study sample was distributed as the following: 2355 of children (under 5 years) were living in main urban areas. Amman, Zerka, Irbid and in the other cities the No. was 1432 But in the rural areas the No. was 1873 and No. of diarrhea cases according to the areas was as such:

160,97, 178, and rate of diarrhea cases was 68,68 and 95 / 1000.

Therefore it indicates that the children (under 5 years) who live in the rural area are more exposed to have diarrhoea and that referres to many factors: as socio economic, beleives, traditions, housing and education etc.

111. Mother's age and its effect on diarrhoea cases distribution of the children

Age groups of mothers of children (under 5 years) were devided into three groups.

1. First group, from 15-25 years.
2. Second group from 25-34 years.
3. Third group from 35 and over.

No. of children accoring to mother's age groups reached 1110, 2585,1964 and No. of children who got diarrhea were as the following: 119,193,123 the incidence rates of the disease also were as the following 108,75, and 63/1000, and according that (whereever) the mother's age is less the incidence rate of diarrhea of thir children is high which explains that the child's care experience of the mothers which she obtains when she gets older and when no. of her children increases.

IV Mother's education and incidence rate of diarrhoea of her children.

Mothers of children (under 5 years) who included in the (JFHFS) were distributed into three groups according to their level of education.

1. Illeterate.
2. Attended school 1-6 years (Education 1-6 years).
3. Education 7 years and over.

No. of children (under 5 years) included in the study sample distributed according to mother's groups of education as the following: 2303, 1534, 1822. No. of children who got diarrhea as the following 166, 116, 156 and the incidence rate between these children as the following 77, 76 and 86/1000, this indicates that wherever the educational level of the mother is high the incidence rate of diarrhoea is high which explains two points (First) the educated mothers have more. Opportunities of working outside their homes (second) it may referre to the complete awareness of educated mothers towards diarrhea and their response to the interveiwers is more accurate.

V. Last Birth place and its Relation to Diarrhoea.

Last birth place of hildren who were included in the survey was divided into three areas and they are:

1. Government hospitals.
2. Private hospitals.
3. Home deliveries.

No. of children of these mothers was as the following :
In the government hospitals 2239 while no. of children delivered in private hospitals was 922 and home deliveries was 2383 and amonget these children who had got diarrhea

in the last two weeks before the beginning of the survey related to the place of birth.

1. Government hospital 190 diarrhea cases.
2. Private sector 79
3. Home 159

Incidence rate as the following:

85/1000 in government hospital.

83/1000 in private sector.

87/1000 at home.

As it shows from these results that the most deliveries occurred at home and secondary in government hospitals and last the private sector hospitals. It is noticed that the incidence rate of diarrhea amongst these childrens of these mothers was mostly the government hospitals and less in the private and less at home and because there is no age group to show when diarrhoea happend and in which age therefore their is no evidence to indicate that the place of birth has an influence on the incidence of diarrhoea.

VI. Drinking Water Resources and Its Relation to Diarrhoeas Cases

As it was shown in the other in the other indicators is it impossible to rely on these results because of non availability of age groups from 0-5 years and because it is known medically that whenever the child's age is less he is more exposed to diarrhea and this was approved also by this survey.

It was shown in Table (4-1) relation to the drinking water was as the following:

4509, 222, 393, 446, 44 and type of drinking water resources were as the following:

- Private Pipes.
- General pipes.
- Water tanks.
- Wells
- Rivers and springs.

The incidence rates of diarrrhea was as the following 76,54, 48, 110, 227/1000.

Therefore the cases of diarrrhea increase mostly according to this group from the first to the firth in order.

It means that the children who drink from springs and rivers resources are much more exposed to diarrhoea.

VII. Type of waste disposal and incidence of diarrhoea.

Toilets or latrines were divided into three:

1. Private
2. Public.
3. None.

No. of children was as the following according to the type of toilet:

5273, 227, 173. and the incidence rate is 75, 101, 110/1000 and as it is noticed that cases of diarrrhea were more in children who don't use toilets or any way to dispose wastes.

VIII Usage of refregerators at home and its relation to diarrhoea cases.'

Children who were included in the survey were ived into two categories.

1. Using refregerator.
2. Not using refregerator.

Nos. as the following

4213, 1439, children and it is noticed that no. of children who use the refregerators are more and incidence rate of diarrhoea is 72,93/1000 and no. of children who don't refregerator have higher incidence of diarrroea.

IX Availability of electricity and it's relation to incidence rate of diarrrhea cases

No. of children (under 5 years) who are included in the survey and have electricity in their houses is 4992 while No. of children who don't have electricity is 667 and the incidence rate of diarrrhea in the first category is 75/1000 and in the second is 90/1000.

X No. of household rooms and its relation to diarrrhea Cases.

It is shown from the survey that No. of children who live in houses which consist of four rooms in 5099 and No. of children who live in houses which consist of five rooms and more are 537 No. of diarrrhea cases between these two categories are as the following: 377 and 54. Incidence rate of diarrrhea is 74/1000 and 102/1000.

Therefore it is noticed that the incidence rate of diarrrhea in the second category is more although these results are not reliable because of no. of children in each household is not known.

For instance a house which consists of 2-5 rooms may has only one child while in houses of 5 rooms may have many children and the second reason is the age groups of these childrens from:

0-1 year. One year, two years, three years.

Four to five years is not known, but the survey shows the incidence rate of diarrrhea in the second age groups of children only who live in houses which consist of 5 rooms and more, although the no. is little and the reason is very obvious because of the socio economic status is high and the uses of these houses are very few.

Children who had got diarrhea during the last two weeks before the survey and the percentage of their distribution according to the kind of treatment used for their diarrhea

It was noticed in Table (4-8) that percentage of children who didn't take treatment is 12.2% and children who used house hold solutions or fluids like soup or tea. is 20.2% and who used commercial solutions which are available in the pharmacies is 55.5% and who used oral rehydration solutions (O.R.S) is 6.2% and fluids which were given (intravenously) is 0.2% other drugs 5.5% children who used unknown kind of treatment 0.2%. Therefore it is noticed that most children used commercial solutions and only 6.2% of children with diarrhea used (O.R.S) and also table (4-8) show that children who live in the main cities as Amman, Zarka and Irbid having more chance to use (O.R.S) than those children who live in rural areas.

The percentage reached 8.7% in the cities while in the rural areas is 5.1% and from this picture can prove that (O.R.S) is much more available in urban than in rural areas.

If it is also noticed in Table(3-4) that mothers who are not educated used (O.R.S) for their children more than mothers who have primary or higher level of education.

Mothers who have primary or higher educations mostly are the users of commercial solutions for the treatment of diarrhea of their children, and mothers who are not educated 0.6% of them don't know what kind of treatment for diarrhea that their children have received in the educated mothers who don't? Know at all what kind of treatment their children had for their diarrhea the percentage was Zero%.

Diarrhea cases and causes of death

It is noticed that the incidence of diarrhea among children under 5 years of age before the survey was very important cause of death.

Diarrhea was the fourth cause of death of these children. Percentage of death from diarrhea was 6.9% and it is the fourth cause of death after accidents, pneumonia and prematurity .

Table (5-9) shows the symptoms of diarrhea was 19.35 before death among children who were included in the survey and these symptoms were three times diarrhea or more /day before death.

Data Analysis

It is possible to obtain some results and findings from 1983 survey especially the diarrhea cases in children (under 5 years) age, of the last two week before the beginning of the fertility survey.

First:

The incidence rate of the disease to those children who got diarrhea and were included in the 1983 survey was 77/1000.

Second

Age of child is very important in relation to the incidence of diarrhea. It means that wherever the child's age is more (from 0-5 years) the incidence of diarrhea is less, children who are less than one year of age, the incidence rate for them is 139/1000 while childrens who are from 4 to 5 years old.

Third

There are other factors which have a big influence on the incidence rate of diarrhea among these children (under 5 years of age) as place of residence, mother's age, educations, no. of children, place of birth of the last baby, sources of drinking water, type of waste disposal, availability of electricity and usage of home remedies which has an effect on the incidence rate of diarrhea.

Fourth

Treatment of diarrhea cases of these children (under 5 years) in Jordan starts from nothing to the use of commercial rehydration solutions to the oral rehydration solutions to the intravenous rehydration solutions and other drugs. Although the use of oral rehydration solution (O.R.S) is still few in the rural areas.

Fifth

The incidence of diarrhea was of main causes of children (under 5 years of age).

Sixth

The survey of 1983 can't be reliable in relation to the indicators of diarrhea cases as an important reference because of lack of distribution of incidence among age groups of children (under 5 years old).

Seventh

It is impossible to obtain or to know from this survey whether the cause of diarrhea is salmonella, shigella or virus.

Eight

It is also impossible to know from this survey the socio economic status and the annual income percapita and it's effect on the incidence rate of diarrhea cases.

Ninth

Nutrition and (nutrients) also breast feeding, artificial feeding and their importance to the incidence of diarrhea is not available in the results of health survey 1983.

Tenth

It is impossible to know (from the survey) or to evaluate the preventive and curative measures provided for children who got diarrhea.

Eleventh

It is impossible to obtain from the JPHFS) the importance of distribution of incidence rate of diarrhea in children according to the four seasons of the year.

Twelveth

It is difficult to know from the JPHFS) the importance of the health survides role (Peventive and curative measures of diarrhea) and whether they are provided by hospitals or outside clinic, whether they are provided by private or public sector.

Thirteenth

The (JFHRS) 1983 didn't consider the extent of importance of the health educations and health programmes.

Diarrhea Cases (Notified by Health Directorates) and its relation to the seasons of the year.

It is noticed that there is an increase of incidence rate of diarrhea between children (under 5 years of age). The no. reached (notified) 25667 in 1983, 11066 cases of them were during the summer season, the percentage is 43.15% of the total but in winter the no. of cases reached 3062, and the percentage is 11.93%. Therefore the incidence rate of diarrhea for this group of age (under 5 years) 1983 is much more in summer than in winter season, the reason is referred to many factors:

- The increase of insect breeding which carry the disease in summer time.
- The increase of eating contaminated food like uncovered sweets.
- The increase of social activities of people in summer time. (Table No 3).

Notified Diarrhea Cases by (M.O.H) Hospitals according to the Seasons of The Year

Also the no. of notified cases from hospitals of (M.O.H) 1983 for children under 5 years of age give higher incidence rate of diarrhea in summer than in winter season.

No. of diarrhea cases notified in 1983 is 8692, and 3997 cases of the total occurred in summer time, and the percentage is 45.98%. While in winter no. reached 766 diarrhea cases and the percentage is 8.81%. Therefore the ratio of diarrhea cases occurred in summer time is much more than in winter season and it refers to the above mentioned factors. (Table no 1).

Incidence of diarrhea and medical causes

Jordan Family Health & Fertility survey 1983 (JFHFS) didn't point to the medical causes of diarrhea cases in children, (under 5 years of age) whether it is virus or salmonella or shigella or others. But there are some information by the primary health directorate about notified cases from health directorates and government hospitals that the results of laboratory finding were as such

05.0% shigilla positive

33.0% salmonilla sure. 1983

0% cholera None

No. of specimens for shigilla reached 1138 from august to Delember 1983.

But for solmonilla it was 1184 and for cholera 1264 (Table No 7).

CHAPTER 11

Comparative analysis of the results with available studies, statistics and information

- There are no scientific studies about diarrhea of children whether notified numbers of diarrhea cases by health directorates and government hospitals or number of visits of children to hospitals, or studies about causes of deaths are available.
- It might be known from the notified cases by the health directorates and government hospitals, the increased number of notifications about diarrhea in summer time than in winter time for these children who are under five years of age.

Conclusion

In regard to the lack of scientific studies related to diarrhea for children under 5 years of age.

This health survey 1983 which took into consideration an important topic for health status of children that is diarrhea which may help the researchers administrators and health planners in knowing the incidence rate of diarrhea for a period of two weeks before the survey which is 77/1000 child and also it shows the health status and its importance for this group of children.

- If we want to take the number of admissions of diarrhea cases in pediatric section of Al Basheer hospital, it reaches 30% of total number of admissions in July and August 1983 and about 19% of total admissions of the whole year.
- The health and fertility survey 1983 handled some of the indicators as the increase or decrease of incidence rate of diarrhea cases of children under 15 years of age.
- Jordan health and fertility survey also shows the methods of treatment, distribution percentage of treatment of diarrhea cases of children who got diarrhea and were included in the survey.

Recommendations

It is of great importance for such a health survey (JFHFS) 1988 to take place in Jordan. Because if the Health administrators and planners in Jordan want to put their sound basic health strategies and plans they can go back to this survey.

It is also useful for the researchers to have a deep look on some sides of health status in Jordan through this survey.

Among health problems there is an important infortant problem which is diarrhea especially of children and because of lack of effecient health information system and lack of specialized scientific research especially on diarrhea, and because the new health information system is not applied yet, this survey is of great importance.

But we want to make some comments and suggestions to be taken into conideration in the future about diarrhea to be handled more deeply and as a health problem of importance.

First

The incidence rate of diarrhea cases of children under five years of age is 77/1000.

Therefore this no. is very high which calls the offcial personnels to take an action to lessen this rate by many methods:

- Condenced health education programs.
- Develop an effective preventive measures.
- Develop more effective curative system.

Second

The (JFHFS) handled the factors those indicated the increase or decrease of incidence of diarrhea cases, but we have here some comments on this survey, General problems and health affairs must be included in this survey especially those related to:

- a. Diarrhea cases and the factors those indicate the incidence rate of diarrhea between children under five years of age, or if there is any direct relation to this disease.
- b. The average income/ capita, nutrition, breast feeding artificial feeding, birth weight, seasons of the year, (JFHFS) handled only two weeks before the survey for diarrhea cases the medical causes related to diarrhea (e.g. salmonilla, virus etc) also it must include all governorates and not only three.
- c. The survey must be careful about the age groups especially the age distribution of children under five years of age as
 - O-one' year.
 - Two years.
 - Three years.
 - Four years.
 - Five years.
- d. There are some results which are of no use or may be they are wrong in giving the nos. as in Table (4-6). The last birth place and it's relation to diarrhea of the child. How can these indicators be related to each other?
- e. It is impossible in this survey to relate breast feeding to diarrhea cases in children because this survey didn't give that the child who was on breast feeding has got diarrhea or not, and also is the same for the child who who was on artificial feeding. Therefore we suggest to put all these thing in consideration in any health servey in the fu-

Third

To stress more on the scientific research especial diarrheas and methods of prevention and treatment and develop an effecient health services system to save our children from this health problem. And then to promote health status in Jordan to compete other developed countries.

Fourth

As there are no scientific research available about this health problem (diarrhea) we depended on the statistics we have obtained from the primary health directorate and other health directorate and government hospitals. So it would be very beneficial if these statistics are comprehensive of all health sectors and to include all information related to diarrhea e.g. No. of cases, treatment and preventive measures, age groups for children under five years of age.

If all these information are available they will be of great use for the health planners, administrators, and researchers to put a comprehensive plan to (overcome) this health problem.

Table 4 - 6

Percentage of children less than 5 years old with diarrhea in the past 2 weeks, by age and characteristics of mother 1983 Jordan Fertility and Family Health Survey.

	Percent with Diarrhea	No.Of children with Diarrhea	Total No.of Children
<u>Total Chid's Age</u>	77	435	5659
1	13.6	155	1140
1	12.3	130	1059
2	6.8	76	1131
3	3.5	40	1156
4	2.9	34	1173
<u>Residence</u>			
Amman,Zarka,Irbid	6.8	160	2355
Other Urban	6.8	94	1432
Rural	9.5	178	1872
<u>Mother's Age</u>			
15- 24	10.8	119	1110
25-34	7.5	193	2585
35+	6.3	123	1964
<u>Mothers Education</u>			
Name	7.1	163	2303
1-6 years.	7.6	116	1534
7+ years.	8.6	156	1822
<u>Mothers & Number of Living Children</u>			
1- 3	10.3	155	1505
4- 5	7.2	100	1349
6+	6.3	173	2752
<u>Mothers Place of last Birth</u>			
Public hospital clinic	6.7	190	2387
Private Hospital	8.3	76	922
Home	8.5	159	2383

Table 4-7

Percentage of Children less than 5 years
Old with Diarrhea in the Pss 2 weeks, by Household Character-
istics 1983 Fertility and Family Health Survey.

Source of Drinking water	No of child with Diarrhea	percent with Diarrhea	Total No. of Children
<u>No. of Rooms in House</u>			
1-4	377	7.4	5099
5+	54	10.2	537
<u>Private tap</u>			
Common tap	342	7.6	4509
Tankers	11	5.4	222
Well	18	4.8	393
River, spring	49	11.0	446
	9	22.7	44
<u>Type of Toilet</u>			
Private septic Latrine	345	7.5	5273
Public septic Latrine Non	532	10.1	207
	19	11.0	173
<u>Refrigerator</u>			
Yes	303	7.2	4213
No	133	9.3	1439
<u>Electricity</u>			
Yes	374	7.5	4992
No	60	9.0	667

Table 4-8

Children under 5 years old with Diarrhea in the past 2 weeks, by type of treatment, residence, and Mothers Education, 1983 Jordan Fertility and Family Health Survey.

Percent Distribution

Treatment	Residence				Mother's Education		
	Total	Irbid	Other urban	Rural	None	1-6 Years	7 years
None	12.2	11.2	9.2	24.7	14.1	11.1	10.9
Home remedies Soup, tea, etc	20.2	18.0	18.4	23.2	20.3	21.4	19.2
Commercial salt, Sugar solution	55.5	55.3	64.3	50.8	48.5	60.7	59.0
Complete oral Rehydration Salts	6.2	8.7	4.1	5.1	9.2	3.4	5.1
Intravenous therapy	0.2	0.6	0.0	0.0	0.0	0.9	0.0
Other	5.5	6.2	4.1	5.7	7.4	2.6	5.8
Don't know	0.2	0.0	0.0	0.6	0.6	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No of cases	436	161	98	177	163	117	156

Table 5-2

Percent Distribution of Dead Children Who Were Born During the 5 years preceding the survey by reported and Diagnosed Cause of Death.

1983 Jordan Fertility and Family Health Survey.

<u>Cause of Death</u>	<u>Reported</u>	<u>Symptoms plus Panel Diagnosis</u>
Accident	19.0	18.5
Tetanus	1.1	3.4
Diarrhea/Gastroenteritis	6.9	10.9
Measles	1.1	4.0
Pneumonia/Petrnssis/Other Respiratory Diseases	10.9	18.4
Premature/birth defects	7.5	19.5
Other	37.9	1.7
Malnutrition	0.0	0.6
Don't know/unclassified	15.5	21.9
Total	100.0	100.0
No. of Cases	179	179

Table 5-9

Percentage of Distribution Dead children who were born in the last 5 years preceding the survey by symptoms Experienced Before Death 1983 Jordan Fertility and Family Health Survey.

A. <u>Symptoms During Illness</u>	<u>Total</u>
High Fever.	37.8
Unable to open mouth/such normally	22.2
Emaciated 3 Wasting away	20.7
3 or more loose stools per day.	19.3
Cough	17.8
Whooping Cough	17.8
Prolonged Cough followed by vomiting	16.3
Unable to open mouth to carry	12.6
Red, Tearing eyes.	11.9
Rash	6.7
Swollen feed	5.2
Red hair	1.5
B. <u>Symptoms Soon Before Death</u>	
3 or more loose stools per day	17.0
Body stiff	11.9;
Muscle spasms/ convulsion.	7.5
mucus or bloody stool.	3.7
Paralysis of one or both legs.	2.2
No. of Cases.	135

Note: Excludes 4. cases where death due to accident.

Table: 1

Cases of diarrhoea/ in M.O.H Hospitals by months 1983.

Months	Under 5 Years	
January	2.19	191
February	2.19	191
March	2.28	199
April	1.44	129
May	6.63	576
June	13.25	1152
July	16.96	1474
August	15.77	1371
September	18.44	1646
October	8.69	
November	7.21	627
December	4.42	384
Total	100%	8692

Table - 2 -

No of cases of Diarrhoea which was notified by Hospital of M.D.H 1983.

<u>Hospital</u>	<u>Under 5 years</u>	
Al-Bashir	23.87	2075
Al-Zarka	14.21	1235
Madaba	2.99	260
Princee Basma	22.33	1941
Al-Mafaq	4.18	363
Al-Ramtha	4.35	378
Jarash	4.46	388
Abu-Ubaida	11.39	990
Al-Hausain	4.45	387
Al-Karak	3.34	290
Al-Tafeeleh	2.69	234
Ma'an	1.74	151
Total	100%	

Table - 3 -

Cases number of Diarrhoea which was notified by the health Directorates in Jordan through the year 1983 divided by age:

<u>Directorate</u>	<u>under 5 years</u>	
Amman Directorate	14.00	3594
Zarka Directorate	13.05	3350
Madaba Directorate	1.55	398
Al-Balqa Directorate	4.84	1243
Irbid Directorate.	13.55	3479
Jordan Valley Directorate.	3.39	870
Jarash Directorate.	11.08	2844
Ramtha	3.60	924
Mafraq	12.31	3161
Ajloun	2.51	604
Al-Karak	5.96	1529
Al-Tafeel	5.89	1512
Ma'an	6.20	1591
Aquaba	2.21	568
Total	100%	25667

Table Number - - -

Cases number of Diarrhoea were notified by the health Directorates in Jordan through the year 1983 divided by months.

<u>Months</u>	<u>Under 5 years of Age</u>	
January	2.96	760
February	2.86	734
March	3.33	856
April	2.98	764
May	5.04	1293
June	14.29	3669
July	10.34	2653
August	18.52	4754
September	12.93	3318
October	11.16	2865
November	9.48	2433
December	6.11	1568
Total	100%	25667

Table number - 5 -

Total cases of Diarrhoea were notified by the Governorates health directorates in Jordan through the year 1983 divided by ages

<u>Health Directorates</u>	<u>No. of cases of diarrhoea Under 5 years of age</u>	
Amman Directorate	25.70	8837
Al-Bashir Hospital	6.03	2075
Al-Balqa Directorate	4.74	1630
Irbid Directorate	46.43	15963
Al-Karak Directorate	10.34	3565
Ma'an Directorate	6.72	2310
Total	100%	34380

Table No - 6 -

Total cases of Diarrhoea were notified by the Hospital and Health directorates through the Year 1983 divided by monthes.

<u>Months</u>	<u>Under 5 years of age</u>	
January	2.82	951
February	2.74	925
March	3.13	1055
April	2.61	882
May	5.55	1869
June	14.31	4821
July	12.25	4127
August	18.18	6125
September	14.76	4974
October	8.50	2865
November	9.08	3060
December	5.79	1952
Total	100%	33696

Table No. 7 : The number of stool samples were sent from the M.O.H Hospitals to Laboratories through August till January 1983.

Microorganism Samples Months	Shigella			Samunella			Cholera		
	Total Sample	Possitive Sample	The percent- age for positive	Total of Sample	Possitive Sample	The perc- entage for positive	Total Sample	possitive Sample	%
August	146	4	2,74%	146	3	2,05%	204	0	0%
September	455	1	0,22%	472	37	7,84%	606	0	0%
October	223	2	0,90%	244	5	2,05%	221	0	0%
November	181	0	0%	176	0	0%	148	0	0%
December	133	0	0%	146	2	1,37%	85	0	0%
Total	1138	7	0,62%	1184	47	3,97%	1264	0	0%

Table - 8 -

The number and quality of water samples was taken through the year 1983 divided by months.

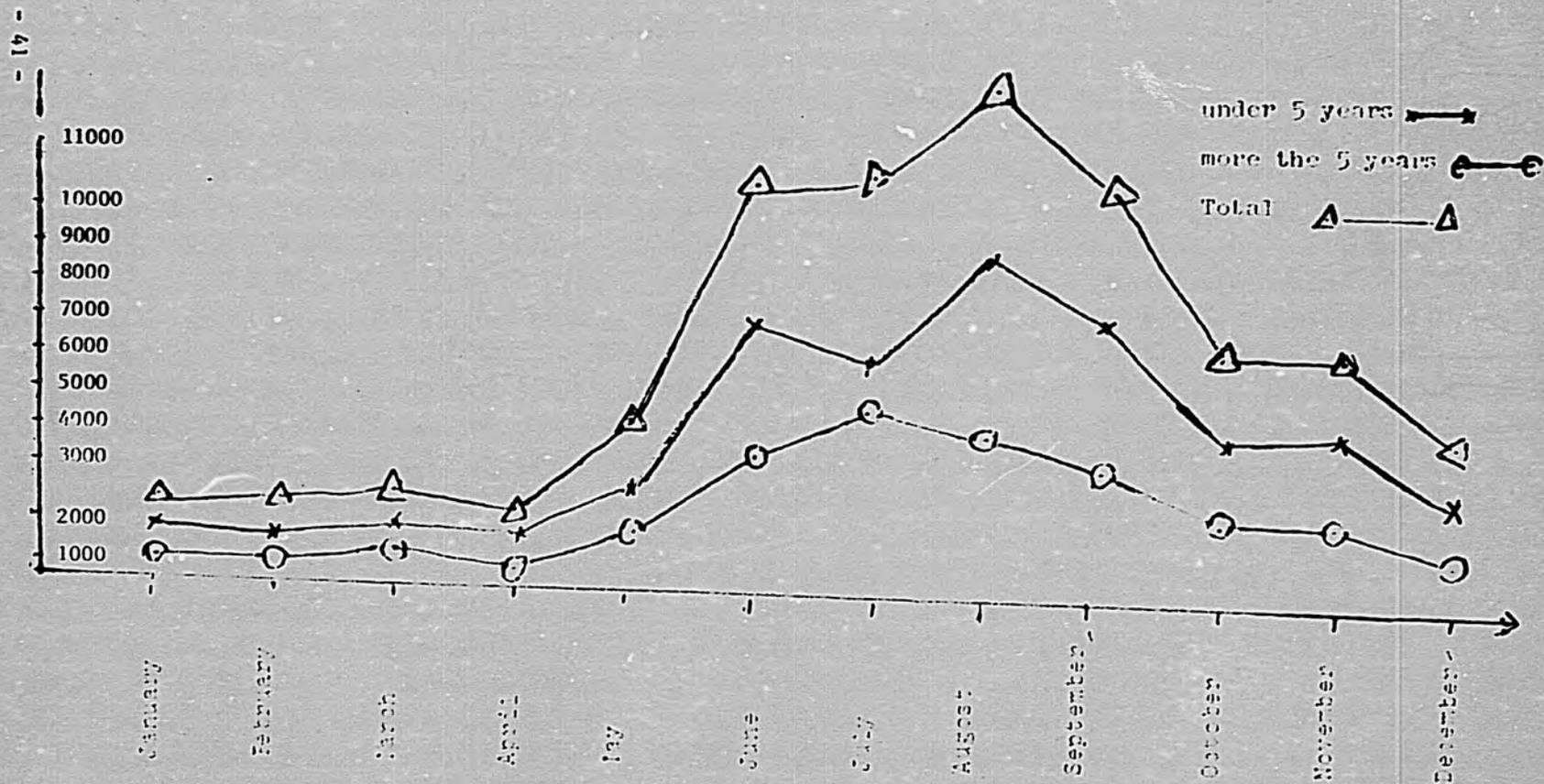
Months	Contaminator Water	runing water	Dam water	Agriculture water	Drinking water	Totally Monthly
January	6	2	--	9	3	20
February	9	1	--	5	9	24
March	30	1	--	10	4	47
April	45	6	--	8	1	66
May	37	7	--	12	2	60
June	24	--	--	23	4	54
July	34	5	--	9	6	54
August	38	16	4	1	10	69
Septemper	59	6	--	6	8	97
October	25	5	--	14	6	50
November	26	9	3	5	6	49
December	42	10	4	12	30	71
Total	375	68	11	114	62	623

Table No 9-

The positive sample number and ratio from all samples were taken for whole micro-organisms causes disease through the year 1983.

Sample	N A G			Salmunella			Shegella		
	Total of Sample	Possitive Sample	The percentage for positive Sample	Total of Sample	Possitive Samples	The percentage for Sample.	Total Sample	Possitive Samples	The percentage for possitive Sample
Contaminates water	7	375	1,87%	0	375	0%	1	375	0,27%
Runing water	2	68	2,94%	0	68	0%	0	68	0%
Dam Water	0	11	0%	0	11	0%	0	11	0%
Agriculture Water	1	114	0,88%	0	114	0%	0	114	0%
Drinking water	1	62	1,61%	0	62	0%	0	62	0%
Rotes	0	13	0%	0	13	0%	0	13	0%
Total	11	643	1,71%	0	643	0%	1	643	0,16%

Curve No. 1: Total cases of Diarrhoea were reported by the hospitals and health director through the year 1933 divided by months



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