

STATE OF BAHRAIN

MINISTRY OF HEALTH

DIRECTORATE OF
PUBLIC HEALTH

NUTRITION UNIT

**FOOD AND NUTRITION INDICATORS
FOR BAHRAIN**

Prepared by
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C O N T E N T S

LIST OF TABLES		Page
PREFACE		
1.	Background	1
2.	Vital and Health Statistics	7
3.	Demographic Statistics	13
4.	Food Imports	25
5.	Food Production and Food Consumption	37
6.	Food Prices	49
7.	Household Food Expenditure	55
8.	Meal Pattern	59
9.	Infant and Children Feeding Practices	63
10.	Malnutrition	77

LIST OF TABLES

<u>Table</u>		<u>Page</u>
	<u>Vital and Health Statistics</u>	
1	Vital statistics for Bahrain (1980)	8
2	Causes of deaths according to the international classification (1980)	9
3	Estimated age - sex - specific death rates for Bahrainis and non-Bahrainis: 1965 - 1971	10
4	Notification of communicable diseases in Bahrain (1980)...	11
	<u>Demographic Statistics</u>	
5	Population and percent concentration in urban and rural areas of Bahrain 1941-1971.	14
6	Percent distribution by marital status of the population 15 years old and over by sex and nationality, standardized for age and unstandardized 1959-1971	15
7	Employed population by major occupational group 1959 - 1971	16
8	Summary measures of mortality by nationality and sex 1965-1971, 1971-1976, and percent change 1965-1971 to 1971-1976	17
9	Summary of measures of fertility by nationality 1965-1971, 1971-1976 and mean annual percent change 1965-1971 to 1971-1976 and 1971-1976 to 1976.	18
10	Estimates of the population in broad age groups: 1965-1976, and percent change 1965-1971, 1971, 1976, 1965-1976	19
11	Sex ratio by nationality for broad age groups: 1965, 1971, 1976	20
12	Measures of reproduction by nationality (1965-1971, 1971-1976, 1976)	21
13	Estimated and projected population by nationality: 1971-1996	22

<u>Table</u>		<u>Page</u>
14	Social characteristics of housewives according to urban and rural areas of Bahrain.	23
15	Percent of the population aged 15 and over in the labor force: 1959 - 1976	24
	<u>Food Imports</u>	
16	Bahrain food imports by quantities and values (1979-1980).	26
	<u>Food Production and Food Consumption</u>	
17	Land utilization, by size of holding (in dunums) in Bahrain.	38
18	Estimated production of different vegetable crop by weight (78/1979 - 79/1980)	39
19	Total number of livestock and poultry on agricultural holdings and in dwelling outside agricultural holdings by sex and age for 1980 (in Bahrain).	40
20	Quantity of poultry (Imports and Domestic Products) (1971 - 1979)	41
21	Volume of home produced vegetables as a percentage of national consumption.	42
22	Consumption and domestic production of poultry products.	43
23	Agriculture's contribution to national food requirements (Cif 1978 BD 1,000s)	44
24	Importation and domestic production of milk.	45
25	Consumption and domestic production of Sheep and Goat meat.	46
26	Consumption and domestic production of Beet	47
27	Vegetable and fruit import and consumption trends.	48

<u>Food Prices</u>		
28	Comparison between prices of some food products in Bahrain (1977-1981)	50
<u>Household Food Expenditure</u>		
29	Bahrain household expenditure	56
30	Percentage of expenditure on different food items of Bahraini household (1975)	57
31	Expenditure and percent expenditure on different food groups among families with income less than BD.50 and above BD.500	58
<u>Meal Pattern</u>		
32	Meal pattern according to urban and rural areas of Bahrain.	60
33	Contents of breakfast of preparatory and elementary students in Bahrain.	61
<u>Infant and Children Feeding Practices</u>		
34	Distribution of infants by type of feeding in urban and rural areas of Bahrain.	64
35	Distribution of children in early and late childhood by type of feeding in urban and rural areas of Bahrain...	65
36	Distribution of children in early and late childhood by frequency of breast feeding per day in urban and rural areas of Bahrain.	66
37	Distribution of infants by pattern of weaning in urban and rural areas of Bahrain.	67
38	Distribution of children in early and late childhood by age of starting abrupt weaning in urban and rural areas of Bahrain.	68
39	Distribution of children in early and late childhood by age of starting of gradual weaning in urban and rural areas of Bahrain.	69

40	Distribution of infants by reasons for weaning in urban and rural areas of Bahrain.	70
41	Age distribution of children in early and late childhood by receiving supplementary vitamins and minerals in urban and rural areas of Bahrain.	71
42	Distribution of children in early and late childhood by type of supplementary feeding in urban and rural areas of Bahrain.	72
43	Distribution of children in early and late childhood by age of starting of intake of normal family meals in urban and rural areas of Bahrain.	73
44	Average weight of consumed food by child in early and late childhood in urban and rural areas of Bahrain.	74
45	Nutritive value of the average weight of food consumed daily by children in early and late childhood in urban and rural areas of Bahrain.	75
46	Distribution of children by type of food given as a measure against diarrhoea in urban and rural areas of Bahrain.	76
	<u>Malnutrition</u>	
47	Prevalence of low height for age in pre-school children and school students (in Bahrain).	78
48	Prevalence of low weight for age in pre-school children and school students (in Bahrain)	79
49	Prevalence of low and high weight for height in pre-school children and school students (in Bahrain).	80
50	Prevalence of anaemia in pre-school children and school students (in Bahrain).	81
51	Distribution of adults females by Haemoglobin level and age in urban and rural areas of Bahrain.	82
52	Percent distribution of pre-school children by skin - fold in urban areas of Bahrain.	83

53	Distribution of pre-school children by skin-fold in rural areas of Bahrain.	84
54	Percent distribution of pre-school children by chest/head circumference ratio in urban areas of Bahrain.	85
55	Percent distribution of pre-school children by chest/head circumference ratio in rural areas of Bahrain.	86
56	Distribution of children 0-5 years of age by incidence of parasitic infections in urban and rural areas of Bahrain.	87
57	Distribution of children 0-5 years of age by incidence of sickle cell anaemia in urban and rural areas of Bahrain.	88
58	Percent distribution of primary school students by skin-fold in urban areas of Bahrain.	89
59	Percent distribution of primary school students by skin-fold in rural areas of Bahrain.	90
60	Percent distribution of primary school students by mid-upper-arm circumference in urban areas of Bahrain	91
61	Percent distribution of primary school students by mid-upper-arm circumference in rural areas of Bahrain.	92
62	Distribution of children 6-11 years of age by incidence of sickle cell anaemia in urban and rural areas of Bahrain.	93
63	Distribution of children 6-11 years of age by incidence of parasitic infections in urban and rural areas of Bahrain.	94
64	Distribution of children 6-11 years of age by incidence of cavities and mottling in teeth in urban and rural areas of Bahrain.	95

Preface

In many developing countries, the absence of useful health information is one of the principal public health problems. Many diseases such as malnutrition could be brought under control if adequate and useful information were available.

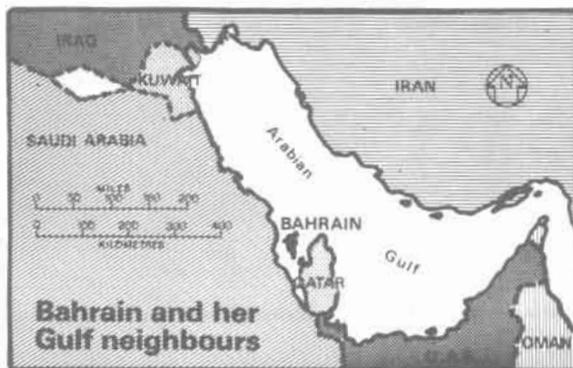
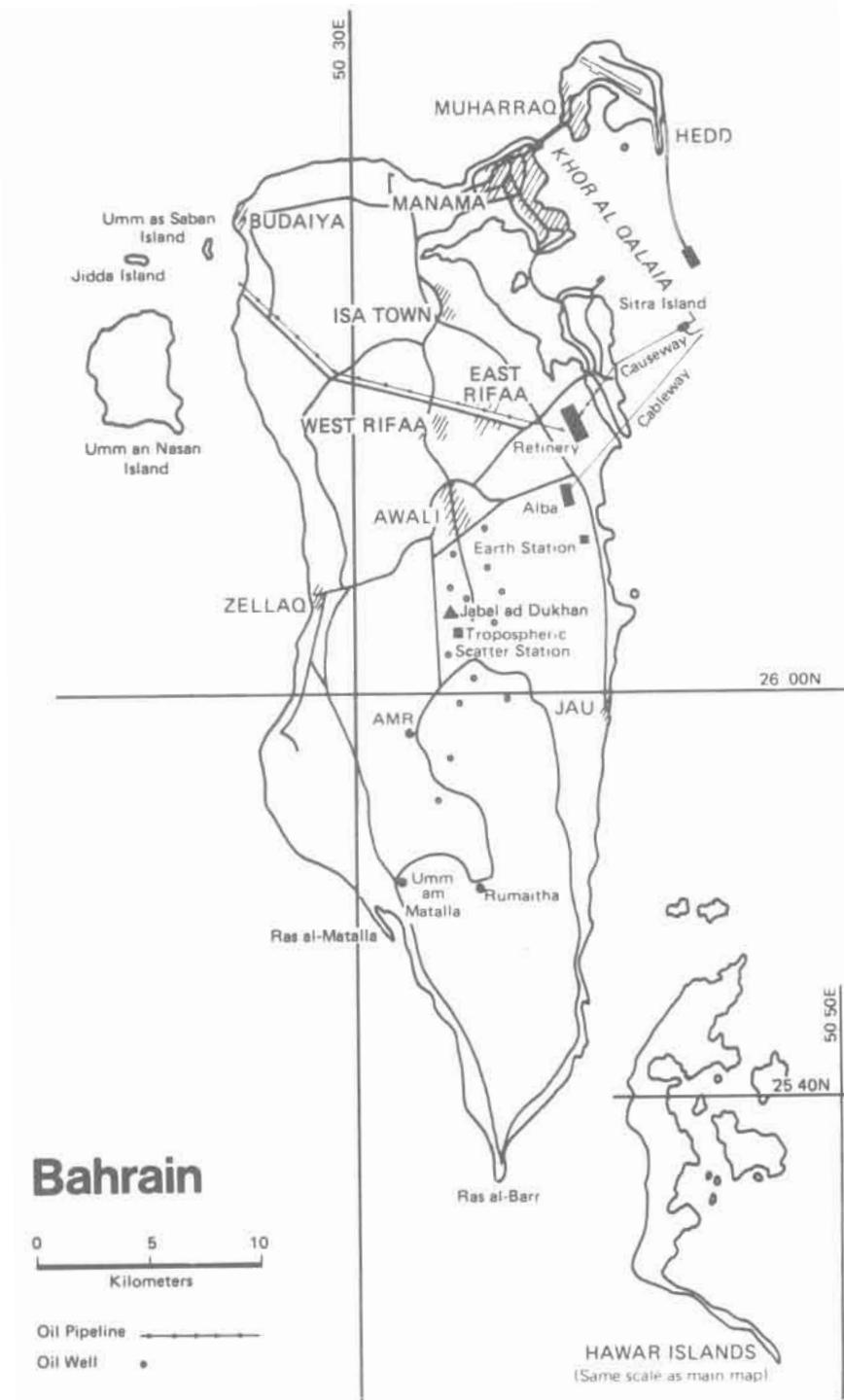
The assessment of the food and nutritional status of a community must be based on a thorough consideration of all available findings and information. The present publication is an attempt at providing this information to all persons engaged in food and nutritional activities. Such a move could assist in the formulation of a food and nutrition policy for Bahrain.

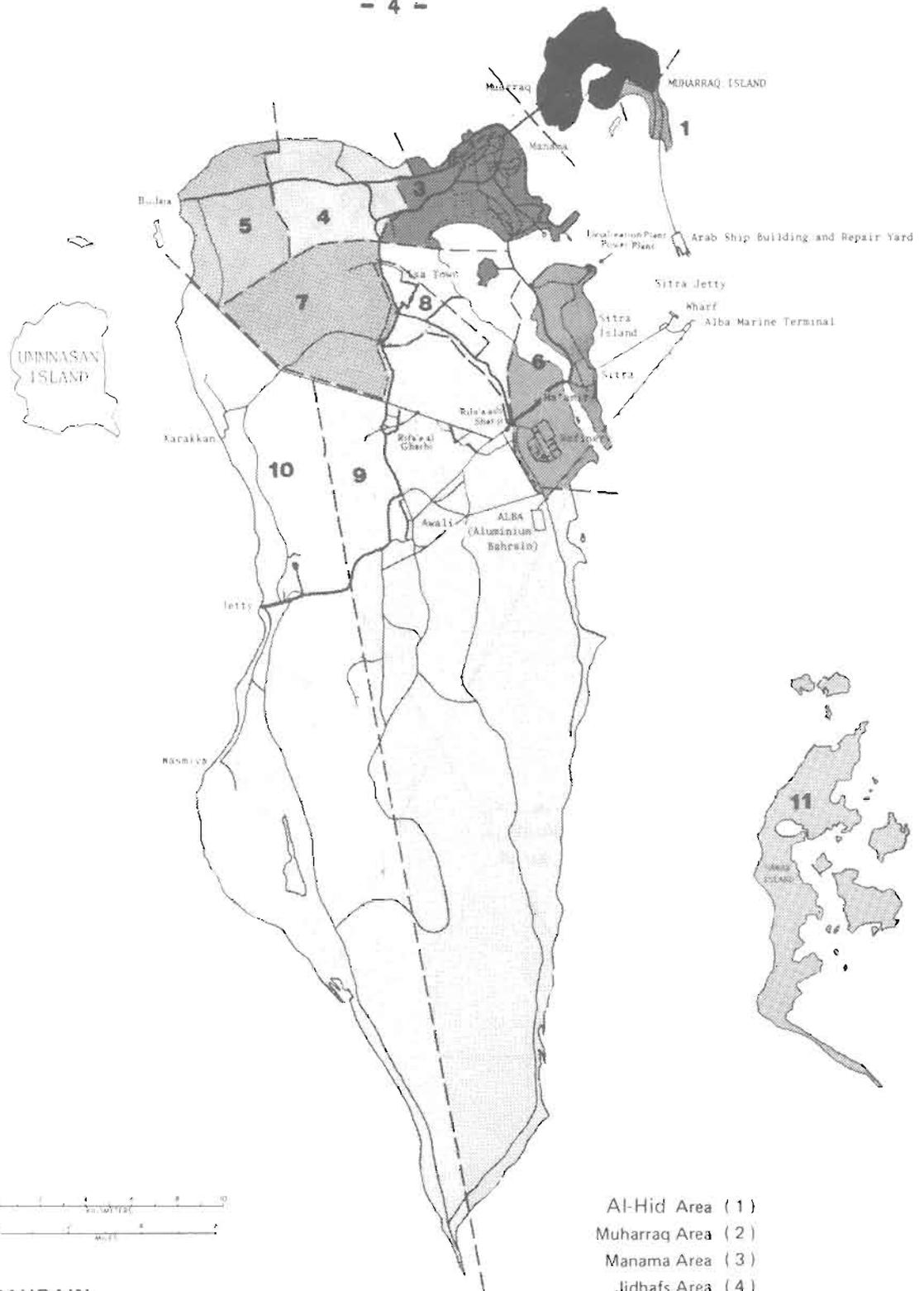
I would finally like to acknowledge Mr. Zuhair S. Aldalal, from Nutrition Unit, Public Health Directorate for his valuable assistance in reviewing the tables.

A . O . M

Manama
October 1981

B A C K G R O U N D

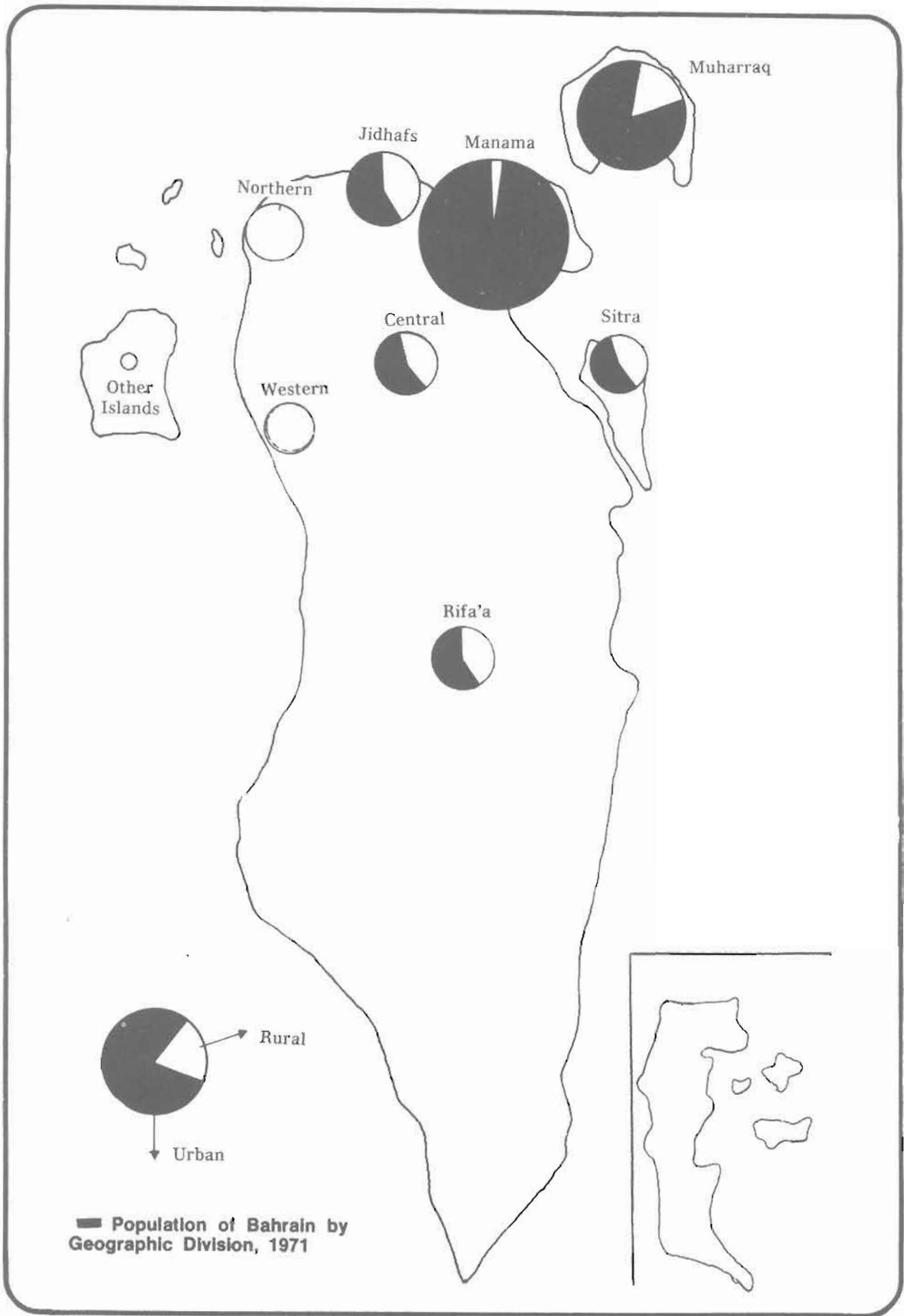




BAHRAIN

The new division of
Bahrain into
areas

- Al-Hid Area (1)
- Muharraq Area (2)
- Manama Area (3)
- Jidhafs Area (4)
- Northern Area (5)
- Sitra Area (6)
- Central Area (7)
- Isa Town Area (8)
- Riffa Area (9)
- Western Area (10)
- Hawar Island (11)



VITAL AND HEALTH STATISTICS

Table (1): Vital statistics for Bahrain (1980).

Indicator	No. rate or ratio	
Total Population	358,857 (1981 census)	364,082 (1980 estimated)
Expatriate Population	135,349 (1980 estimated)	
Expatriate Population Rate	37.2% of the total population	
Total live births	9962	
Crude birth rate	27.4 per 1000	
Still births	235	
Still birth rate	13.4 per 1000 total births (live & still)	
Premature births	228	
Premature birth rate	22.9 per 1000 live births	
Total deaths	1085 (very much under reported)	
Crude death rate	3.0 per 1000	
Perinatal deaths (<7 days)	181	
Perinatal mortality rate	18.2 per 1000 live births	
Neonatal deaths (<4 weeks)	205	
Neonatal mortality rate	20.6 per 1000 live births	
Post neonatal deaths (4 weeks to <1 year)	46	
Post neonatal mortality rate	4.6 per 1000 live births	
Infant deaths	251	
Infant mortality rate	25.2 per 1000 live births	
Maternal deaths	5	
Maternal mortality rate	0.5 per 1000 total births (live & still)	
Sex ratio at birth	103.6	
No. of congenital abnormalities	46	

Source: Public Health Directorate (1980): On The State of Public Health, Ministry of Health, Bahrain.

Table (2): Causes of deaths according to the international classification (1980)

Causes of Death	No.	%
Infective and parasitic Diseases	55	5.1
Neoplasms	90	8.3
Endocrine, Nutritional and Metabolic Diseases	28	2.6
Diseases of the Blood and Bloodforming Organs	16	1.5
Mental Disorders	9	0.8
Diseases of the Nervous System and Sense Organs	19	1.8
Diseases of the Circulatory System	303	27.9
Diseases of the Respiratory System	59	5.4
Diseases of the Digestive System	21	1.9
Diseases of the Genito-Urinary System	28	2.6
Complications of Pregnancy, Childbirth and Puerperium	12	1.1
Diseases of the Skin and Subcutaneous Tissue	3	0.3
Diseases of the Musculoskeletal System and Connective Tissue	3	0.3
Congenital Anomalies	50	4.6
Certain Causes of Perinatal Morbidity and Mortality	156	14.4
Symptoms and Ill-defined Conditions	97	8.9
Accidents, Poisonings, Violence	136	12.5
Total	1085	100

Source: Directorate of Statistics, Statistical Abstracts for 1980, Bahrain.

Table (3): Estimated age-sex-specific death rates for Bahrainis and non-Bahrainis: 1965 -,1971
(Deaths per 1000 population)

Age (Yrs)	Males	Females
0 - 4	25.6	21.6
5 - 9	2.3	2.1
10 - 14	1.8	1.7
15 - 19	2.7	2.4
20 - 24	3.8	3.2
25 - 29	4.1	3.8
30 - 34	4.7	4.3
35 - 39	5.8	5.1
40 - 44	7.5	6.0
45 - 49	10.2	7.6
50 - 54	14.4	10.7
55 - 59	20.7	14.9
60 - 64	30.9	22.9
65 - 69	45.8	35.3
70 - 74	69.6	57.0
75 +	149.2	136.4

Source: Directorate of Statistics, (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (4): Notification of Communicable Diseases in Bahrain (1980).

Disease	Number	Percent
Influenza	4134	30.9
Mumps	3813	28.5
Measles	1860	13.9
Chicken Pox	829	6.2
Venereal Diseases	629	4.7
Dysentery	441	3.3
Enteric fever	308	2.3
Streptococcal sore throat	268	2.0
Malaria	254	1.9
Viral hepatitis	214	1.6
Tuberculosis	187	1.4
Other Salmonella	147	1.1
All other Communicable diseases	294	2.2
Total	13378	100.0

Source: Public Health Directorate, Epidemiological Unit, Bahrain.

DEMOGRAPHIC STATISTICS

Table (5): Population and percent concentration in urban and rural areas of Bahrain : 1941 - 1971

Area	1941	1950	1959	1965	1971
POPULATION					
Total	89,970	109,650	143,135	182,203	216,078
<u>Urban</u>	50,806	69,071	112,544	143,270	168,819
Manama	27,835	39,648	61,726	79,048	88,785
Muharraaq	21,439	25,577	27,115	34,430	37,732
Awali	1,532	3,846	3,123	2,097	984
Hidd			4,440	5,230	5,269
Jidhafs			5,591	7,441	11,152
Sitra			3,926	5,071	6,665
Rifa'a			6,623	9,403	10,731
Isa					7,501
<u>Rural</u>	39,164	40,579	30,591	38,433	47,259
PERCENT CONCENTRATION					
Total	100.0	100.0	100.0	100.0	100.0
<u>Urban</u>	56.4	63.0	78.7	78.6	78.1
Manama	30.9	36.2	43.1	43.4	41.1
Muharraaq	23.8	23.3	19.0	18.9	17.5
Awali	1.7	3.5	2.2	1.1	.4
Hidd			3.1	2.9	2.4
Jidhafs			3.9	4.3	5.2
Sitra			2.8	2.8	3.1
Rifa'a			4.6	5.2	5.0
Isa					3.4
<u>Rural</u>	44.6	37.0	21.3	21.4	21.9

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (6): Percent distribution by marital status of the population 15 years old and over by sex and nationality, standardized for age and unstandardized: 1959 - 1971

Marital Status	Bahrainis			Non-Bahrainis		
	1959	1965	1971	1959	1965	1971
Total	100.0	100.0	100.0	100.0	100.0	100.0
<u>MALES</u>						
<u>Unstandardized</u>						
Single	26.7	30.2	38.4	40.2	39.9	36.8
Married	68.5	65.4	58.3	56.2	57.4	61.2
Widowed	2.4	2.3	1.6	1.4	1.2	0.8
Divorced	2.5	2.1	1.6	2.1	1.5	1.2
<u>Standardized (1)</u>						
Single	-	34.4	38.4	-	40.0	42.1
Married	-	61.4	58.3	-	56.3	55.3
Widowed	-	2.3	1.6	-	1.9	1.2
Divorced	-	2.0	1.6	-	1.8	1.4
<u>FEMALES</u>						
Total	100.0	100.0	100.0	100.0	100.0	100.0
<u>Unstandardized</u>						
Single	6.2	11.2	20.4	7.6	14.6	16.9
Married	73.3	69.6	63.4	79.9	75.8	75.8
Widowed	16.8	15.7	13.6	9.6	7.7	5.8
Divorced	3.7	3.5	2.7	2.9	1.8	1.5
<u>Standardized (2)</u>						
Single	-	13.0	20.4	-	18.1	21.8
Married	-	67.8	63.4	-	69.1	67.4
Widowed	-	15.8	13.6	-	10.7	9.1
Divorced	-	3.4	2.7	-	2.0	1.7

(1) The 1971 population of Bahraini males is the standard for the 1965 distribution by marital status for Bahraini males and for the 1965 and 1971 distributions for non-Bahraini males.

(2) The 1971 population of Bahraini females is the standard for the 1965 distribution by marital status for Bahraini females and for the 1965 and 1971 distributions for non-Bahraini females.

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (7): Employed population by major occupational group : 1959 to 1971

Occupation	Number				PerCent Distribution			Mean Annual Percent Change	
	1959	1965	1971	1959	1965	1971	1959-1965	1965-1971	
Total	46,955	53,274	59,590	100.0	100.0	100.0	2.3	1.9	
Professional, technical and related workers	253	583	4,824	0.5	1.1	8.1	22.7	117.9	
Administrative, executive, and managerial workers	5,108	6,599	1,035	10.9	12.4	1.7	5.1	-0.9	
Clerical workers	4,050	4,783	5,204	8.6	9.0	8.7	3.1	1.4	
Sales workers	4,140	3,996	4,230	8.8	7.5	7.1	-0.6	0.9	
Farmers, fishermen, hunters and related workers	4,434	109	218	9.4	0.2	0.4	-17.0	16.2	
Miners, quarrymen, and related workers	2,181	4,246	4,927	4.5	8.0	8.3	16.5	2.6	
Transport and communications workers	20,353	28,420	22,846	43.5	53.3	38.4	6.9	-3.2	
Craftsmen and production process workers	2,417	2,338	9,964	5.1	4.4	16.7	-0.6	52.9	
Services, sports, and recreation workers	4,019	2,200	1,142	8.6	4.1	1.9	-7.9	-7.8	
Workers not classified (including Armed Forces)									

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

BACKGROUND:

The State of Bahrain consists of an archipelago of 30 low lying islands situated off the coast of the Arabian Peninsula. The total area of the state is 669.26 sq.km. of which Bahrain Island itself is 517.79 sq.km.

According to the latest census (1981) the population of Bahrain is 358,857 of whom about three quarters are Bahraini, the rest are expatriates.

The climate of Bahrain is characterised by high summer temperatures, scanty and irregular rainfall, high relative humidity, and persistent prevailing winds from the north-west. For the year 1980 a maximum temperature of 45.2°C was recorded in the month of June. Relative humidity varied between 40% to 90%.

Oil revenues are the mainstay of the State's finances and the life blood of the economy. The average daily production for 1980 was 48,000 barrels, as against 51,000 barrels per day during 1979. A total of 5,854,000 of refined petroleum products were marketed in Bahrain.

In 1979 natural gas amounted to 123,422 million cubic feet. This showed an increase of 13.2% over the previous year's production.

Despite the difficulties of climate and soil, Bahrain was self-sufficient in the production of fruits and vegetables up until the advent of the oil industry in the 1930's. However an increase in the population and the movement of the labour force towards industry combined to diminish an agricultural system which had remained unsophisticated.

Table (8): Summary measures of mortality by nationality and sex:
1965-1971, 1971-1976, and percent change 1965-1971 to
1971-1976.

Mortality Measure Nationality Sex	1965-1971	1971-1976	Percent Change
			1965-1971 - 1971-1976
Life Expectancy	58.4	62.1	6.3
Males	56.8	60.7	6.9
Females	60.3	63.7	5.6
Infant Mortality Rate ⁽¹⁾	77.0	65.1	-15.5
Males	84.6	69.2	-18.2
Females	69.3	60.8	-12.3
Crude Death Rate ⁽²⁾	9.8	8.0	-18.4
Bahrainis	10.1	8.2	-18.8
Males	10.9	8.7	-20.2
Females	9.3	7.6	-18.3
Non-Bahrainis	8.3	7.3	-12.0
Males	8.1	7.3	- 9.9
Females	8.7	7.2	-17.2

(1) Deaths to infants per 1000 live births

(2) Deaths per 1000 population

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (9): Summary measures of fertility by nationality: 1965 - 1971, 1971-1976, 1976 and mean annual percent change 1971-1976 and 1971-1976to 1976

Fertility Measure Nationality	Mean Annual Percent Change		
	1965-1971	1971-1976	1971-1976 - 1976
Crude Birth Rate⁽¹⁾			
	41.0	34.5	30.8
Bahrainis	44.1	37.6	35.6
Non-Bahrainis	27.6	22.6	18.0
General Fertility Rate⁽²⁾	208.5	170.8	156.6
Bahrainis	213.5	175.1	159.7
Non-Bahrainis	180.0	148.4	141.7
Total Fertility Rate⁽³⁾	6.6	5.6	5.2
Bahrainis	6.9	5.9	5.5
Non-Bahrainis	5.1	4.4	4.3

(1) Births per 1000 total population

(2) Births per 1000 females age 15-49

(3) Births per woman, calculated by summing the age-specific birth rates.

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (10) : Estimates of the population in broad age groups: 1965-1976, and percent change 1965-1971, 1971-1976, 1965-1976

Age (Yrs)	Population			Percent Change		
	1965	1971	1976 (1)	1965 - 1971	1971-1976	1965-1976
<u>Total</u>	189,373	224,130	281,560	18.4	25.6	48.7
0-4	37,025	38,507	41,960	4.0	9.0	13.3
5-19	67,479	87,824	114,990	30.2	30.9	70.4
20-64	81,208	92,299	118,270	13.7	28.1	45.6
65+	3,661	5,500	6,340	50.2	15.3	73.1
<u>Bahraini</u>	149,929	185,397	213,180	23.7	15.0	42.2
0-4	31,553	34,131	34,800	8.2	2.0	10.3
5-19	58,054	79,243	91,450	36.5	15.4	57.5
20-64	57,062	67,041	81,220	17.5	21.2	42.3
65+	3,260	4,982	5,710	52.8	14.6	75.1
<u>Non-Bahraini</u>	39,444	38,733	68,390	-1.8	76.6	73.4
0-4	5,472	4,376	7,170	-20.0	63.8	31.0
5-19	9,425	8,561	23,550	-9.0	174.4	149.8
20-64	24,146	25,258	37,040	4.6	46.7	53.4
65+	401	518	630	29.2	21.8	57.4

(1) Each estimate rounded independently; subgroups may not add up to the totals.

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (11): Sex ratios⁽¹⁾ by nationality for broad age groups: 1965, 1971, 1976

Nationality Age (Yrs)	1965	1971	1976
Total	119.4	115.7	121.4
0 - 4	99.2	101.9	101.7
5 - 19	107.8	104.0	112.7
20 - 64	142.7	136.1	140.1
65 +	103.6	102.4	108.0
<u>Bahrainis</u>	101.4	101.1	100.1
0 - 4	98.4	101.0	101.5
5 - 19	101.5	100.4	100.5
20 - 64	103.2	102.4	99.0
65 +	98.4	95.4	100.4
<u>Non-Bahrainis</u>	232.2	230.0	231.5
0 - 4	104.3	109.3	103.0
5 - 19	157.4	144.6	178.4
20 - 64	348.7	323.1	338.9
65 +	158.7	210.2	217.1

(1) Males per 100 females

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (12): Measures of reproduction by nationality
(1965-1971, 1971-1976, 1976)

Reproduction Measure Nationality	1965-1971	1971-1976	1976
Gross Reproduction Rate (1)	3.3	2.8	2.6
Bahrainis	3.4	2.9	2.7
Non-Bahrainis	2.5	2.2	2.1
Net Reproduction Rate (2)	2.7	2.4	2.3
Bahrainis	2.9	2.6	2.4
Non-Bahrainis	2.1	1.9	1.9

(1) Number of daughters per woman, assuming no mortality of mother during the childbearing period.

(2) Number of daughters per woman, assuming mortality during the childbearing period.

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (13): Estimated and projected population by nationality : 1971 -1996 (1)

Nationality Alternative	1971	1976	1981	1986	1991	1996
<u>Total</u>						
High	224,130	281,560	421,620	518,150	615,990	719,770
Medium High	224,130	281,560	394,220	465,220	551,000	643,760
Medium Low	224,130	281,560	390,750	452,580	520,960	587,300
Low	224,130	281,560	363,750	400,510	457,790	513,780
<u>Bahraini</u>						
High	185,397	213,180	240,910	280,270	328,360	383,890
Low	185,397	213,180	237,440	267,640	298,310	327,430
<u>Non-Bahraini</u>						
High	38,733	68,390	180,710	237,880	287,630	335,880
Medium	38,733	68,390	153,320	184,940	222,650	259,870
Low	38,733	68,390	126,310	132,870	159,480	186,350

(1) Each number rounded independently: subgroups may not add up to totals.

Source: Directorate of Statistics (1979): The Population of Bahrain Trends and Prospects, Bahrain.

Table (14): Social characteristics of housewives according to urban and rural areas of Bahrain.

Characteristics	Urban		Rural		Total	
	No.	%	No.	%	No.	%
<u>Age:</u>						
20 - 30 Yrs	77	29.8	29	55.8	106	34.2
31 - 40 Yrs	106	41.1	11	21.2	117	37.7
41 -50 Yrs	70	27.1	10	19.2	80	25.8
More than 50 Yrs	5	2.0	2	3.8	7	2.3
<u>Marital status:</u>						
Married	226	87.6	48	92.3	274	88.3
Divorced	9	3.5	-	-	9	3.0
Widowed	23	8.9	4	7.7	27	8.7
<u>Education:</u>						
Low ⁽¹⁾	168	65.1	46	88.5	214	69.0
Middle ⁽²⁾	37	14.3	1	2.0	38	12.3
High ⁽³⁾	53	20.6	5	9.5	58	18.7
<u>Employment:</u>						
Not employed	202	78.3	39	75.0	241	77.7
Employed	56	21.7	13	25.0	69	22.3
<u>Family size:</u>						
Less than 4	34	13.2	2	3.8	36	11.6
4 - 7	103	40.0	20	38.5	123	39.7
More than 7	121	46.8	30	57.7	151	48.7
<u>Monthly percapita income:</u>						
Less than 50 B.D. ⁽⁴⁾	161	62.4	46	88.5	207	66.8
50-150 B.D.	89	34.5	5	9.5	94	30.3
More than 150 B.D.	8	3.1	1	2.0	9	2.9
Total	258	100.0	52	100.0	310	100.0

- (1) Low educational level included illiterate housewives and those who could only read and write.
- (2) Middle educational level included housewives who completed primary and/or preparatory schools.
- (3) High educational level included housewives who completed secondary and/or university education.
- (4) One Bahrain Dinar = 2.5 Dollars.

Source: Musaiger, A.O. (1977): A Study of Food Habits in Urban and Rural Areas in Bahrain, A Master Thesis Submitted to the High Institute of Public Health, University of Alexandria.

Table (15): Percent of the population aged 15 and over in the labor force:
1959 - 1976

Nationality Sex	1959	1965	1971	1976
<u>Total</u>	53.2	52.3	50.1	51.5
Male	91.1	87.2	83.7	83.4
Female	3.6	4.7	6.2	8.1
<u>Bahraini</u>	45.6	42.3	41.3	41.1
Male	87.8	81.3	77.6	76.4
Female	3.0	2.7	4.1	6.2
<u>Non-Bahraini</u>	77.1	79.0	78.2	76.7
Male	98.1	97.3	96.8	94.4
Female	8.3	16.3	20.2	18.3

Source: Directorate of Statistics (1979): The Population of Bahrain
Trends and Prospects, Bahrain.

FOOD IMPORTS

1980

1979

Description of Foods

	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
<u>Dairy Products and Eggs</u>				
Milk, evaporated or condensed, unsweetened	2311.4	929.2	2515.3	993.6
Milk, evaporated or condensed, sweetened	221.5	72.4	53.6	23.2
Cream, evaporated or condensed	82.9	50.9	135.9	83.0
Yogurt spread	6.5	5.6	2.5	1.8
Milk and cream, dry	1662.1	1290.6	1870.8	1624.2
Milk, fresh	151.4	45.9	82.6	24.2
Cream, fresh	105.1	76.9	44.1	52.3
Butter, (all types)	768.5	601.1	785.1	787.3
Yogurt	35.1	23.9	6.3	7.7
Cheese	1573.0	1386.1	1476.1	1637.9
Eggs (human consumption)	984.1	432.5	777.6	336.5
Eggs (for breeding)	88.5	131.8	128.3	191.9
	<u>7990.1</u>	<u>5047</u>	<u>7878.2</u>	<u>5763.6</u>
<u>Total</u>				
<u>Fish and Fish Preparations</u>				
Fish, fresh, chilled or frozen	131.5	188.8	216.6	268.2
Fish, salted, dried or smoked but not further prepared	42.1	25.7	224.7	59.8
Shrimps, fresh, chilled or frozen	7.9	23.7	35.4	104.1
Shrimps, dried or salted	7.3	4.6	9.6	32.8
Other crustacea and molluscs, fresh, chilled, \emptyset frozen, salted or dried	2.3	9.4	21.8	25.9
Caviar and 'Batarekh'	2.8	5.5	0.7	1.6
Fish in airtight containers, n.e.s. and \emptyset fish preparations, whether or not canned \emptyset	172.0	142.0	229.6	205.3
	<u>365.9</u>	<u>399.7</u>	<u>738.4</u>	<u>697.7</u>
	<u>Total</u>			

contd Table (16)

1979

1980

Description of Foods	1979		1980	
	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
<u>Cereals and Cereal Preparations</u>				
Wheat, unmilled	16942.2	1272.4	11871.4	2544.6
Rice in the husk	158.8	40.5	35803.0	9351.3
Rice polished but not otherwise worked	9902.9	2305.8	0.2	0.05
Barley, unmilled	701.6	72.7	1119.7	114.3
Maize, unmilled	3739.2	311.8	2826.7	804.6
Millet, unmilled	6.7	1.2	0.9	0.4
Cereal, unmilled, n.e.s.	30.6	7.0	164.7	17.5
Flour of Wheat	123.2	61.0	52.9	31.9
Meal & Groats of Wheat n.e.s.	220.5	22.2	19.2	7.0
Flour of cereals other than Wheat & Misc.	400.6	665.2	143.9	64.0
Meal of cereals other than Wheat & Misc.	86.2	15.0	52.7	9.5
Cereal grains, rolled	44.1	39.1	11.2	7.7
Macaroni, vermicelli and similar products	688.4	259.3	524.9	203.4
Bread and other ordinary bakers' wares	85.8	66.5	93.0	91.0
Biscuits	1095.9	911.7	1065.1	942.2
Pastry, cakes and other fine bakers' wares	316.5	489.0	477.0	445.5
Malt extract	241.7	44.9	7.3	5.8
Preparations of cereals, flour and starch for food, n.e.s.	392.6	360.8	609.2	520.4
Sealing wafers, Communion wafers & similar	109.2	107.6	45.3	40.4
	<u>35286.7</u>	<u>7053.7</u>	<u>54888.3</u>	<u>15201.5</u>
<u>Fruit and Vegetables</u>				
Oranges, Tangerines and Clementines	5443.5	432.9	5846.9	5652.9
Lemons, fresh, Limes, Grapefruit & other Citrus	883.7	132.7	990.2	146.4

contd Table (16).....

1979

1980

Description of Foods	1979		1980	
	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
Lemons, dried	2413.7	49.4	122.9	60.2
Other Citrus fruit	9.9	1.7	3.8	0.4
Bananas, fresh, Plantains, fresh, chilled	4049.6	227.1	5298.8	550.9
Apples, fresh, chilled, frozen	3594.1	376.5	3118.4	417.9
Grapes, fresh, chilled, frozen	815.2	80.7	842.8	129.5
Coconut, fresh or dried, Brazil & Cashew	224.9	195.6	404.5	400.5
Chestnuts	247.9	29.8	25.7	7.6
Other edible nuts, Pecan-Pistachios-Hazelnuts	755.5	559.7	475.2	490.8
Figs, Fresh, chilled	19.5	4.1	6.6	4.6
Pears & Quinces, fresh, chilled	451.1	79.6	490.3	74.9
Stonefruit (other than Tropical)	387.5	116.3	260.5	72.5
Berries, fresh, chilled	253.7	30.9	170.9	24.1
Dates, fresh, chilled (Tropical fruit)	5.2	2.8	126.9	65.0
Melons and Watermelons	13129.3	332.1	10483.5	326.7
Other fresh fruit	1797.8	765.5	1811.5	752.7
Dates, dried (Tropical fruit)	661.0	111.5	579.1	138.8
Figs, dried	14.6	3.0	23.5	6.4
Grapes, dried (raisins)	939.0	36.3	89.8	51.1
Other dried fruit	11.7	13.6	20.3	19.3
Fruit peel, parts of plant, preserved by Sugar	11.6	7.7	2.5	1.1
Jams, Marmalades and fruit pastes	351.1	191.5	283.5	205.1
Fruit juices and vegetable juices	6857.4	1634.3	4764.1	1522.7
Fruit frozen preserved, no sugar added	3.3	2.9	4.3	3.6
Fruit frozen preserved, sugar added	8.2	3.5	2.5	3.6

contd Table (16)....

1979

1980

Description of Foods	1979		1980	
	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
Fruit, temporary preserved	2.5	1.3	1.2	0.4
Nuts, roasted	19.9	160.7	473.5	318.9
Fruit prepared or preserved, n.e.s. (including fruit in airtight containers)	85.5	333.9	894.1	369.3
Potatoes, fresh	9949.8	897.0	7090.3	372.1
Lentils, dried, whole or split	315.4	113.8	931.8	242.4
Chick peas, dried, whole or split	1045.1	168.5	787.1	155.3
Broad beans, dried including split	262.8	55.9	1331.6	71.0
Green lentils (mash) whole or split	82.4	26.6	89.0	22.8
Other dried leguminous vegetables, whole or split	136.3	37.3	238.2	59.0
Tomatoes, fresh	1852.7	227.7	1911.8	340.6
Onions	23099.9	223.9	7899.6	352.3
Garlic	453.2	54.7	229.4	53.3
Beans, fresh	170.8	49.9	109.9	66.6
Cauliflowers, fresh	73.1	17.6	79.9	45.9
Cucumbers	307.4	107.1	375.3	250.3
Eggplants	274.6	49.1	234.2	80.4
Marrows	123.8	18.7	119.2	25.6
Other fresh vegetables	3993.1	1141.3	2814.7	1147.6
Vegetables frozen	434.3	283.1	395.0	262.5
Vegetables in temporary preservative	17.2	10.4	27.0	11.7
Roots & Tubers, fresh, dried	99.7	32.4	30.9	21.1
Sugar Cane & Beet fresh, dried	0.01	0.01	2.0	0.1
Chicory Roots fresh, dried	0.1	0.05	0.06	0.07

1 30 1

contd Table (16).....

Description of Foods	1979		1980	
	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
Hops	2.7	0.5	0.04	0.06
Vegetable products fresh, dried (n.e.s.)	136.9	41.2	1.9	1.1
Vegetables, dehydrated	135.8	21.5	53.5	32.9
Flour of legumes, beans, peas, lentils	60.2	17.7	6.2	2.1
Flour of Bananas, Almonds, Chestnuts, Coconuts, Dates	84.3	39.9	112.9	63.5
Flour & Meal of Potato, flakes	190.6	222.7	170.3	225.3
Flour & Meal of Roots and Tubers	0.9	0.05	-	-
Tapioca and Sago	106.2	22.9	115.3	5.4
Olives, preserved	83.1	59.0	88.2	58.5
Cauliflower, Cucumbers, Onions, Pickles, Tomatoes, preserved	84.7	24.5	33.4	20.9
Other pickled vegetables	178.0	72.1	275.9	234.4
Tomato puree	1014.6	357.9	1041.0	348.0
Prepared chick peas and broadbeans in airtight containers	966.0	173.1	333.4	90.6
Other vegetables preserved or prepared whether or not in airtight containers	1978.5	767.9	2834.7	984.4
<u>Total</u>	<u>91162.1</u>	<u>11253.6</u>	<u>67381.6</u>	<u>17465.7</u>
<u>Sugar, Sugar Preparations and Honey</u>				
White Sugar	7795.6	843.2	22278.7	5002.7
Brown Sugar	15.5	4.2	4.8	1.5
Molasses	6.7	4.1	35.2	10.4
Natural Honey	30.0	17.9	13.3	11.6
Sugars and Syrups n.e.s. (including artificial honey and caramel)	170.9	73.0	112.4	74.6

1980

1979

Description of Foods

	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
Chewing Gum	273.7	309.7	159.3	167.7
Sugar confectionery and other sugar preparations except chewing gum	716.9	733.2	703.5	683.8
Flavoured or coloured sugars, powders for beverages	26.8	91.3	17.8	15.9
<u>Total</u>	<u>9036.1</u>	<u>2076.6</u>	<u>23325.0</u>	<u>5968.2</u>
<u>Coffee, Tea, Cocoa, Spices and Manufactures Thereof</u>				
Coffee, green	204.8	284.2	221.8	361.2
Coffee, roasted, ground concentrates and similar preparations	14.0	392.2	175.7	294.7
Cocoa	1.8	3.9	9.3	13.5
Cocoa powder, unsweetened, sweetened	0.4	1.3	16.9	25.2
Cocoa paste	0.02	0.02	-	-
Cocoa Butter	-	-	0.4	0.3
Chocolate and other food preparations containing cocoa or chocolates, n.e.s.	712.6	825.4	1841.4	1415.0
Tea	712.8	921.9	598.9	853.6
Mate	23.5	19.5	28.5	31.2
Pepper and pimento, whether or not ground	124.9	105.3	149.4	118.1
Vanilla	0.1	0.5	0.1	0.8
Cinnamon	27.9	23.4	60.5	60.2
Cloves	32.8	57.4	13.6	46.9
Cardamom	88.8	395.6	83.4	272.4

contd Table (16)

Description of Foods	1979		1980	
	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
Seeds of Anise, Badian, Fennel, Juniper	18.5	1007.7	14.2	6.2
Saffron, Thyme	42.2	104.1	26.6	169.9
Spices, except pepper, pimento, saffron and Cardamom, whether or not ground	518.9	254.4	399.1	207.3
Total	2524.02	4396.8	3639.8	3876.5
<u>Feeding-Staff for Animals</u> (not including Unmilled Cereals)				
Cereal straw unprepared or chopped	52.7	3.5	812.5	59.5
Fodder roots, alfalfa, vetches, and similar forage products	82.3	3.0	19.0	2.3
Dates for use as feeding stuff for animals	-	0.04	-	-
Vegetable products used for animals (n.e.s.)	129.5	85.8	104.0	19.6
Bran	3069.1	191.3	7498.9	263.3
Oil-seed cake and meal	-	0.03	111.5	21.7
Meat meal and fish meal, unfit for human consumption	151.8	19.1	82.9	2.8
Coffee husks and skins	14.2	4.1	-	-
Cocoa shells	-	-	-	-
Fruit peels and food waste for use as feeding stuff for animals	1812.6	203.1	-	-
Wine lees, argol, tartar crude	-	-	-	-
Sweetened forage and preparations of a kind used in animal feeding	2182.4	343.2	4939.5	725.2
Animal food in airtight containers	298.4	84.5	351.2	111.6
Total	7793.0	937.6	13919.5	1206.0

1979

1980

Description of Foods

	1979	1980		
	Weight Tonnes	Value Dinars		
	Weight Tonnes	Value Dinars		
<u>Miscellaneous Food Preparations</u>				
Lard and Pig fat	0.7	0.4	11.4	9.0
Margarine and shortening	1113.2	545.8	1911.5	1029.2
Mustard	22.3	13.9	18.9	13.8
Sauces	621.6	258.2	481.0	192.2
Soups and Broths	345.7	135.6	133.2	107.3
Natural yeasts & prepared baking powders	107.6	97.1	199.6	170.1
Vinger	95.8	25.3	88.5	19.7
Extracts, concentrated, non-alcoholic for making beverages	42.6	146.5	44.9	127.7
Ice Cream and powders for ice creams	506.1	527.0	384.7	412.3
Other miscellaneous food preparations	686.1	678.9	379.1	269.2
	<u>3541.7</u>	<u>2428.7</u>	<u>3652.8</u>	<u>2350.5</u>
<u>Beverages</u>				
Waters (including Spa waters and aerated waters), ice	2246.6	335.7	2610.7	239.4
Lemonade and flavoured waters, non-alcoholic	1516.2	518.1	2374.2	1030.4
Grape Must	7.3	26.1	-	-
Wine of fresh grapes	220.6	211.4	337.9	326.2
Vermouths and other wines	257.3	206.1	179.8	123.0
Cider and fermented beverages (n.e.s.)	25.4	3.6	12.3	3.8
Beer (Ale, Stout, Porter)	4579.4	1425.1	5922.4	2139.8

Contd Table (16)....

Description of Foods	1979		1980	
	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
Alcoholic beverages other than Beer	2289.0	2245.4	1724.7	2158.4
<u>Total</u>	11141.8	4971.5	13162.0	6021.0
<u>Tobacco and Tobacco Manufactures</u>				
Tobacco, unmanufactured	1736.1	124.6	195.7	130.1
Cigars, and Cheroots	17.6	98.8	9.9	102.5
Cigarettes	878.3	3592.1	635.3	3222.6
Tobacco, manufactured	284.6	50.6	16.2	43.6
<u>Total</u>	2916.6	3866.1	857.1	3498.8
<u>Animal Oils and Fats</u>				
Oils of fish and marine animals	30.6	7.4	0.5	1.3
Other animal oils, fats and greases	1.8	0.1	1.0	0.6
<u>Total</u>	32.4	7.5	1.5	1.9
<u>Fixed Vegetable Oils and Fats</u>				
Soya bean oil	37.2	15.0	47.3	19.8
Cotton seed oil	9.8	2.5	-	-
Ground nut oil	8.1	5.2	14.6	7.8
Olive oil	108.4	48.4	58.9	65.7
Sesame oil and Emulsion "Tahina"	59.2	42.8	72.5	66.5
Linseed oil	3.4	1.9	-	-

cont'd Table (16)...

Description of Foods	1979		1980	
	Weight Tonnes	Value Dinars	Weight Tonnes	Value Dinars
Palm oil	31.6	11.1	130.9	49.0
Coconut "Copra" oil	94.4	54.9	101.9	56.4
Corn oil	2103.9	915.5	2354.8	1047.6
Other fixed vegetable oils, n.e.s.	724.2	285.2	1595.0	599.6
Linseed and other animal or vegetable oils boiled, oxidized, blown, etc, bees wax, fatty acids, vegetable wax	6.4	3.3	1.9	1.6
	<u>3186.6</u>	<u>1385.8</u>	<u>4377.8</u>	<u>1914.0</u>
	<u>Total</u>			

(1) Imports: Include all foods that Bahrain imports by air or sea and those which are imported from the industrial area with the exception of foods that are imported for exhibitions, if not to be sold inside Bahrain.

Source: Directorate of Statistics (1981): Foreign Trade Statistics for 1980, Bahrain.

Directorate of Statistics (1980): Foreign Trade Statistics for 1979, Bahrain.

N.B. One Bahrain Dinar = 1000 Fils = 2.5 Dollars

FOOD PRODUCTION AND FOOD CONSUMPTION

Table (17): Land utilization, by size of holding (in dunums) in Bahrain.

Size class	Total land	Land under temporary		Land under dense trees	Land under buildings	Land unused and potentially productive	
		crops	Alfalfa			entirely productive	with scattered trees
All holdings	35384.4	5384.2	2634.8	8235.5	754.7	9355.8	9019.4
Under 5 dunums	210.0	27.5	18.8	23.2	8.2	61.4	70.9
5 to less than 10	686.7	112.3	79.1	124.8	71.8	199.4	99.3
10 to less than 20	2321.2	508.0	307.6	416.7	164.2	685.8	238.9
20 to less than 30	2992.2	572.5	276.4	720.8	43.0	869.4	510.1
30 to less than 40	3164.8	670.0	236.7	967.0	58.8	806.6	425.7
40 to less than 50	2369.7	442.0	178.0	572.0	24.5	604.9	548.3
50 to less than 100	10094.2	1665.8	520.1	2145.5	121.6	2442.0	3199.2
100 to less than 200	8424.4	930.1	494.4	1643.0	110.3	2803.4	2443.2
200 to less than 500	4611.7	440.3	459.9	1590.3	134.4	711.3	1275.5
500 to less than 600	509.5	15.7	63.8	32.2	17.9	171.6	208.3
Percentage (%)	100.00	15.22	7.45	23.27	2.13	26.44	25.49
							51.93

Source: Results of the 1980 Agricultural Census, Agriculture Directorate, Bahrain.

Table (19): Total number of livestock and poultry on agricultural holdings and in dwellings outside agricultural holdings by sex and age for 1980 (in Bahrain).

Group	Total number
<u>Cattle</u>	
1. Less than 2 years:	
a) Males	920
b) Females	1154
Total	2074
2. Two years and over:	
a) Males	547
b) Milking cows	2025
c) Others	926
Total	3498
GRAND TOTAL	5572
<u>Sheep</u>	
1. Less than one year:	866
2. One year and over:	
a) Males	2770
b) Females	2913
Total	5683
GRAND TOTAL	6549
<u>Goats</u>	
1. Less than one year:	4168
2. One year and over:	
a) Males	1561
b) Milking goats	2162
c) Others	6622
Total	10345
GRAND TOTAL	14513
<u>Chickens</u>	
1. Broilers	25489
2. Layings	18017
GRAND TOTAL	43506
- Ducks and Geese	1243
- Horses	841
- Asses	376
- Camels	728
- others	809
- Others Poultry	25527

Source: Results of the 1980 Agricultural Census, Agricultural Directorate, Bahrain.

Table (20): Quantity of Poultry (Imports & Domestic Products) (1971 - 1979).

Weight in Tons		
Year	Domestic Product	Import
1971	649	1,086
1972	700	1,350
1973	763	1,948
1974	822	1,862
1975	822	2,015
1976	850	2,385
1977	880	3,937
1978	1,400	4,343
1979	2,400 (1)	5,955

(1) Estimate Number.

Source: Directorate of Statistics, Statistical Abstracts, 1979, Bahrain.

Table (21): Volume of Home Produced Vegetables as a Percentage of National Consumption (tonnes)

Vegetable	1973/1974		1974/1975		1975/1976		1976/1977	
	Home	% Imports						
Tomato	2,099	62	2,367	61	1,644	50	2,093	56
Potato	9	0	2,399	18	12	0	28	1
Egg Plant	346	70	371	71	265	56	339	53
Onion	388	6	6,174	310	344	6	549	9
Cabbage	116	20	453	105	101	18	184	22
Cauliflower	37	28	95	76	47	37	125	54
Cucumbers	372	84	69	375	87	78	338	76
Carrot	143	37	244	136	115	26	145	27
Lettuce	239	69	105	287	224	54	228	44
Pumpkin	65	10	605	64	51	11	58	10
Beet	15	37	26	46	54	70	32	21
W. Melon	55	1	5,683	73	45	0	59	1
Melon	-	0	3,326	-	2,193	0	-	0
Okra	49	65	26	50	29	49	24	23
Others	1,704	65	923	2,047	1,959	54	1,923	48
Grand Total	5,637	21	21,569	6,326	22,979	16	6,125	17

Source: Hunting Technical Services Limited (1978): Agricultural Potential of the State of Bahrain, Kuwait Fund of Economic Development.

Table (22): Consumption and Domestic Production of Poultry Products.

	1974	1975	1976	1977	1978	1979
<u>Egg Production and Consumption</u>						
Imported volume	33.58	35.64	39.36	27.27	19.81 ⁽¹⁾	2.51 ⁽¹⁾
Domestically produced volume	18.67	17.84	20.00	35.00	52.46 ⁽²⁾	73.62 ⁽²⁾
Total Consumption	52.25	53.48	59.36	62.27	72.27	76.13
Proportion domestically produced	36	33	34	56	73	96
Egg consumption/head/year	407	203	207	196	203	203
Import cif price/carton (3)	3.96	8.51	8.01	9.74	na	na
Domestic wholesale price/carton	na	na	na	11.00	12.00	na
<u>Chicken Meat Production and Consumption</u>						
Imported volume	1,860	1,994	4,385	3,937	4,413	0
Domestically produced volume	286	731	1,176	1,756	2,237 ⁽²⁾	6,872 ⁽²⁾
Total consumption	2,146	2,725	5,561	5,693	6,650	6,750
Proportion domestically produced	13	27	21	31	35	102
Consumption/head/year	8.5	10.3	19.4	18.0	19.0	20.39
Import cif price	581	614	304	572	na	na
Domestic wholesale price	na	na	na	800	800	na

(1) Shortfall in planned production

(2) Planned production

(3) 360 eggs of 50 gm each

Source: Hunting Technical Services Limited (1978): Agricultural potential of the State of Bahrain, Kuwait Fund of Economic Development.

Table (23): Agriculture's Contribution to National Food Requirements (Cif 1978 BD1,000s)

	1974	1975	1976	1977
Total egg consumption	575	1,264	1,321	1,685
Domestic egg production	205	422	445	945
% of Total domestically produced	36	33	34	56
Total Consumption of Dairy products	3,567	3,359	4,141	3,748
Domestic dairy production	513	488	419	301
% of Total domestically produced	14	15	10	8
Total consumption of red meat ¹	2,886	1,912	3,216	6,407
Domestic Production of red meat	289	250	258	321
% of Total domestically produced	10	13	8	5
Total Consumption of poultry meat	1,247	1,673	1,691	3,256
Domestic production of poultry meat	166	449	358	1004
% of total domestically produced	13	27	21	31
<u>Total Consumption of Animal Produce</u>	8,275	8,208	10,369	15,096
Total Domestic Animal Produce	1,173	1,609	1,480	2,571
% of total domestically produced	14	20	14	17
Total import of animal feedstuffs	947	936	885	617
Domestic value added	226	673	595	1,954
Total Consumption of vegetables	3,244	2,964	3,885	5,613
Domestic production of vegetables	820	731	904	766
% of total domestically produced	25	25	23	14
Total consumption of fruit	2,912	3,129	3,290	3,741
Domestic production of fruit ²	966	937	895	932
% of total domestically produced	33	30	27	25
<u>Total Consumption of Fruit and Vegetables</u>	6,156	6,093	7,175	9,354
Total domestic Fruit and Vegetables production	1,786	1,668	1,799	1,698
% of total domestically produced	29	27	25	18
Total Other Foods Consumed	10,585	11,673	13,960	16,196
<u>Total Food Consumption</u>	25,016	25,974	31,054	40,201
Total Production of Food	2,959	3,277	3,279	4,269
% of Total Domestically Produced	12	13	11	11

1 All meat except chicken

2 Inclusive of 55 percent of date production at 1978BD115/tonne

Source: Hunting Technical Services Limited (1978): Agricultural Potential of the State of Bahrain, Kuwait Fund of Economic Development.

Table (24): Importation and Domestic Production of Milk

	1974	1975	1976	1977
Imported milk (liquid equivalent) (tonnes)	11,150	12,024	16,473	19,699
Domestic milk production ¹ (tonnes)	3,290	3,320	3,350	3,380
Total milk consumption (tonnes)	14,440	15,344	19,823	23,079
Proportion domestically produced (%)	23	22	17	15
Milk consumption/head/year (kg)	57	58	69	73
Overall cif price of imported milk (1978BD/tonne)	156	147	125	89
Retail price of reconstituted milk (1978BD/tonne)	na	na	na	220
Retail price of domestic milk (1978BD/tonne)	na	na	na	390

1 Inclusive of goat milk

Source: Hunting Technical Services Limited (1978): Agricultural Potential of the State of Bahrain, Kuwait Fund of Economic Development.

Table (25): Consumption and Domestic Production of Sheep and Goat Meat .

		1974	1975	1976	1977
<u>Import of Live Animals</u>					
Sheep Numbers	(no.)	na	30,420	66,929	45,503
Volume of sheep ⁽¹⁾	(tonnes)	na	1,247	2,744	3,916
Meat Equivalent ⁽²⁾	(tonnes)	na	565	1,243	1,773
Volume of Sheep	(tonnes)	na	914	1,564	na
Meat Equivalent ⁽²⁾	(tonnes)	na	414	708	na
<u>Import and Domestic Production of Mutton</u>					
Imported Meat ⁽³⁾	(tonnes)	1,646	210	5,126	4,405
Domestic Production ⁽³⁾	(tonnes)	62	69	76 ⁽⁴⁾	83

(1) 41 kg average per head

(2) 45 percent killing out

(3) Inclusive of goats

(4) Extrapolated

Source: Hunting Technical Services Limited (1978): Agricultural Potential of the State of Bahrain, Kuwait Fund of Economic Development.

Table (26): Consumption and Domestic Production of Beef

		1974	1975	1976	1977
<u>Import of Live Animals</u>					
Cattle Numbers ¹	(no.)	na	2,027	2695	1,196
Volume of Cattle ^(1,2)	(tonnes)	na	608	809	359
Meat Equivalent ^(1,3)	(tonnes)	na	296	394	175
Volume of Cattle	(tonnes)	na	751	314	na
Meat Equivalent ⁽³⁾	(tonnes)	na	366	192	na
<u>Import and Domestic Production of Beef</u>					
Import Meat	(tonnes)	0	48	5	314
Domestic Production	(tonnes)	116	120 ⁽⁴⁾	125 ⁽⁴⁾	129

(1) Directorate of Supply and Price Control

(2) 300 kg average per head

(3) 49 percent killing out

(4) Extrapolated

Source: Hunting Technical Services Limited (1978): Agricultural Potential of the State of Bahrain, Kuwait Fund of Economic Development.

Table (18): Estimated production of different vegetable crop by weight
(78/1979 - 79/1980)

Crops	Production in Tonnes		Area in Dunums	
	79/1980	78/1979	79/1980	78/1979
Tomatoes	2,230	2,765	188.71	1,584
Cabbage	323	204	158.54	172
Cauliflower	138	195	130.11	75
Lettuce	402	293	200.96	225
Carrots	243	167	150.98	103
Onions	767	643	249.16	201
Eggplants	163	372	140.23	113
Root Beets	8	8	22.55	26
Turnips	33	25	37.04	22
Potatoes	69	84	40.82	48
Snake Cucumbers	360	304	536.55	320
Watermelons	-	-	119.14	71
Cantaloups	25	49	378.60	276
Okra	48	34	255.32	147
Marrow	372	57	396.60	389
Pumpkins	35	24	26.07	32
Other kind of Veg.	2,002	1,957	3,031.38	748
Total	7,218	7,181	5,384.24	4,552

Source: Directorate of Statistics, Statistical Abstracts for 1980,
Bahrain.

Table (27): Vegetable and Fruit Import⁽¹⁾ and Consumption Trends.

Year	1971	1972	1973	1974	1975	1976	1977
Mean Population (1,000s)	225	233	242	252	264	287	317
<u>Fresh Vegetables (tonnes)</u>							
Local Estimate	6,150	6,200	6,250	6,649	6,347	6,235	6,500
Imported	19,689	10,615	11,912	13,209	16,143	13,589	19,998
Linear Trend	20,035	20,475	20,915	21,355	21,795	22,235	22,675
<u>All Vegetables (tonnes)</u>							
Total	28,391	19,936	22,945	26,303	25,735	26,799	47,639
Linear Trend	20,293	22,945	25,598	28,250	30,902	33,554	36,206
<u>Fresh Proportion of Vegetables (per cent)</u>							
Actual	91	84	79	75	87	74	56
Linear Trend	91	86	82	78	74	70	65
Trend on Trend	99	89	82	76	71	66	63
<u>Consumption of Vegetables Per head (Kg)</u>							
Total	126	86	95	104	97	94	150
72-76 Trend	90	92	93	95	97	99	101
71-77 Trend	98	101	104	107	111	114	117
<u>Fresh Fruit (tonnes)</u>							
Local Estimate ⁽²⁾	1,983	2,038	2,089	2,163	2,247	2,372	2,487
Imported	24,227	20,499	20,818	21,137	23,714	26,191	21,454
Linear Trend	23,886	24,182	24,479	24,775	25,071	25,367	25,663
<u>All Fruit (tonnes)</u>							
Total	27,559	23,640	24,634	25,650	28,041	31,528	27,953
Linear Trend	24,819	25,546	26,273	27,001	27,728	28,455	29,183
<u>Fresh Proportion of Fruit (per cent)</u>							
Actual	95	95	93	91	93	91	86
Linear Trend	96	95	93	92	91	90	88
Trend on Trend	96	95	93	92	90	89	88
<u>Consumption of Fruit Per Head (kg)</u>							
Total	122	101	102	102	106	110	88
72-76 Trend	98	100	102	104	106	109	111
71-77 Trend	113	110	107	104	102	99	96

(1) Inclusive of melons and water melons (2) Exclusive of dates

Source: Hunting Technical Services Limited (1978): Agricultural Potential of the State of Bahrain, Kuwait Fund of Economic Development.

FOOD PRICES

Table (28): Comparison between prices of some food products in Bahrain (1977 - 1981)

Food Products	Origin	Unit (Kg)	Price (B.D)				
			June 1977	June 1978	June 1979	June 1980	June 1981
<u>Cereals and cereal products:</u>							
Rice	Pakistan	50	8.400	8.900	13.200	17.00	17.00
Wheat	Iraq	1	0.150	0.165	0.165	0.165	0.200
Wheat flour	Bahrain	50	4.000	4.000	4.000	4.000	4.000
Bread	Bahrain	1 piece	0.010	0.020	0.020	0.020	0.020
<u>Meats:</u>							
Beef	-	1	0.700	0.825	0.825	0.825	0.825
Mutton	-	1	0.900	1.000	1.000	1.000	1.000
<u>Fishes:</u>							
Fresh fish	Bahrain	1	1.200	1.500	-	-	-
Salted fish	Bahrain	1	1.200	1.200	2.000	1.200	2.000
Canned fish (sardine)	Denmark	0.106	0.225	0.225	0.225	0.225	0.275
<u>Eggs and Poultry products:</u>							
Chicken (local)	Bahrain	1	0.700	0.800	0.800	0.800	0.800
Frozen chicken	Denmark	1	0.650	0.715	0.715	0.715	0.750
Eggs (local)	Bahrain	1 Doz.	0.500	0.500	0.500	0.550	0.550
Eggs (imported)	Australia	1 Doz.	0.350	0.400	0.450	0.550	0.550
<u>Milk and dairy products:</u>							
Fresh cow milk	Bahrain	1	0.300	0.330	0.350	0.350	0.350
Evaporated milk (carnation)	U.S.A	1 tin (0.70)	0.075	0.080	0.090	0.100	0.100

Continued (Table 28)

Food Products	Origin	Unit (Kg)	Price (B.D.)				
			June 1977	June 1978	June 1979	June 1980	June 1981
Dried milk (Nido)	Swiss	2.497	2.945	2.945	2.945	2.945	3.640
Cream (Nestle)	Swiss	1 tin (0.170)	0.150	0.125	0.150	0.150	0.200
Yoghurt	Bahrain	1 tin	0.060	0.070	0.075	0.075	0.090
Butter (Falcon)	Australia	0.340	0.400	0.450	0.400	0.400	0.400
Cheese (kraft)	Australia	0.340	0.410	0.410	0.420	0.425	0.500
<u>Baby foods:</u>							
Rusks (Farlene)	U.K.	0.250	0.700	0.750	0.925	0.925	0.925
Rusks (Farleys)	U.K.	0.200	0.700	0.725	0.950	0.950	1.200
Mixed foods (Beach nut)	U.K.	0.135	0.100	0.120	0.110	0.110	0.120
Formula (lactogen)	Swiss	0.454	0.810	0.810	0.810	0.810	0.890
<u>Fruits and nuts:</u>							
Orange	Lebanon	1	0.500	0.500	0.450	0.500	0.500
Lemon	Lebanon	1	0.500	0.550	0.550	0.500	0.500
Banana	Somalia	1	0.450	0.450	0.400	0.500	0.500
Apple	Africa	1	0.500	0.500	0.500	0.600	0.500
Watermelon	Iraq	1	0.600	0.800	-	-	-
Dates (dried)	Saudi Arabia	1	0.150	0.600	-	0.800	1.000
Mango	India	1	1.500	1.500	1.200	1.200	1.900
Pistachio	Iran	1	1.800	2.800	2.200	2.600	3.000
Almonds	Iran	1	2.000	4.400	4.500	3.800	3.500

Continued (Table 28):

Food Products	Origin	Unit (Kg)	Price (B.D.)				
			June 1977	June 1978	June 1979	June 1980	June 1981
<u>Vegetables:</u>							
Potatoes	Lebanon	1	0.250	0.300	0.500	0.350	0.350
Onions	Pakistan/ Iran*	1	0.150	0.250	0.250*	0.150	0.250
Tomato (local)	Bahrain	1	0.300	0.400	0.500	0.400	0.700
Cucumber	Bahrain	1	0.700	0.800	0.600	0.450	0.850
Green pepper	India	1	1.600	1.600	-	1.400	1.850
<u>Pulses:</u>							
Lentils	India	1	0.500	0.700	0.800	0.700	0.700
	Iraq/ Syria*	1	0.500	0.600	0.500*	0.500	0.550
Chick pee	Australia/ Turkey*	1	0.400	0.600	0.700	0.400*	0.450
<u>Sugar and Syrups:</u>							
Suger	-	1	0.260	0.260	0.145	0.145	0.145
Honey (Bama)/ Fairco*	U.S.A.	0.450	0.625	0.625	0.625	0.550*	0.575
Jams (Edfina)	Egypt	0.450	0.250	0.300	0.300	0.300	0.300
Sesame sweet	Bahrain	1	0.200	0.900	1.000	1.000	1.000
<u>Spices and salt:</u>							
Black pepper	India	1	1.500	1.400	1.500	1.500	1.500
Chilli	India	1	0.800	1.000	1.000	0.500	0.500
Curcuma	India	1	0.600	1.000	1.000	0.800	0.800

Continued (Table:28)

Food Products	Origin	Unit (kg)	Price(B.D.)				
			June 1977	June 1978	June 1979	June 1980	June 1981
Cloves	India	1	3.600	4.500	4.500	4.500	5.000
Cardamom	U.S.A.	1	4.500	6.000	14.00	13.00	12.00
Saffaron	Iran	Tola	0.700	0.900	1.200	1.000	1.000
Ginger	India	1	1.200	1.600	1.600	1.400	1.600
Salt (Nezo)	Holland	1	0.125	0.150	0.150	0.150	0.150
<u>Oil and fats:</u>							
Animal fat (two cows)	Holland	4.540	1.800	1.800	-	-	-
Plant ghee (Shah pasand)	Iran	4.540	1.500	1.500	2.700	2.700	-
Corn oil (coroli)	Singapore	4.540	2.000	2.000	2.000	1.800	1.800
Corn oil (Mazolla)	U.S.A.	0.907	0.800	0.800	1.100	1.100	1.800
<u>Beverages:</u>							
Tea Bags (Lipton)	India	1	1.200	1.500	1.800	1.800	1.800
Tea Bags (Brook Bond)	India	1	1.200	1.600	1.800	1.800	1.800
Tea	Calcutta	1	1.000	1.500	1.600	1.500	1.600
Coffee (Nescafe)	Swiss	0.560	0.550	0.700	0.600	0.600	0.800
Mineral water (Saha)	Lebanon	1 litre	0.300	0.250	0.250	0.250	0.250
Carbonated beverages	Bahrain	1 bottle	0.050	0.050	0.075	0.060	0.060
Orange juice (white lily)	Japan	1 tin	0.075	0.075	0.075	0.075	0.100
Pineapple juice (Nacrissus)	China	0.200	0.075	0.100	0.100	0.100	0.100
Tomato juice (Hunts)	U.S.A.	0.781	0.100	0.100	0.200	0.200	0.400

Source: Supply and Price Control Directorate, Bahrain

HOUSEHOLD FOOD EXPENDITURE

Table (29): Bahrain household expenditure.

Services	Percentage (%)
- Food and drinks	46.9
- Housing	14.3
- Clothing	9.2
- Domestic services	7.7
- Culture, recreation & sports	5.8
- Transportation	5.6
- Fuel and electricity	3.2
- Medical services	1.3
- Other services	6.0

Source: Ministry of Finance (1975): Household Budget Survey
in Bahrain (In Arabic).

Table (30): Percentage of expenditure on different food items of Bahraini household (1975).

Food items	% of food expenditure	% of total expenditure
Cereals and cereal products	17.7	8.3
Meat and eggs	15.4	7.2
Fish	13.2	6.2
Milks	7.4	3.5
Fruits and nuts	11.8	5.5
Vegetables	6.6	3.1
Legumes	2.1	1.0
Sugar and syrup products	3.5	1.7
Spices and salts	2.1	0.9
Oil and fat	3.1	1.4
Tea, coffee and cocoa	2.2	1.1
Beverages	4.6	2.1
Tobacco and tobacco products	2.8	1.3
Other foods	7.5	3.5
Total	100.0	46.8

Source: Ministry of Finance (1975): Household Budget Survey in Bahrain,
(In Arabic).

Table (31): Expenditure and percent expenditure on different food groups among families with income less than 50 B.D. and above 500 B.D.

Food Groups	Distribution		Distribution	
	< 50 B.D.	%	> 500 B.D.	%
Wheat and cereal products	0.950	19.7	2.916	15.1
Meat and eggs	0.691	14.3	3.644	18.9
Fish	0.868	18.1	1.658	8.6
Milk and dairy products	0.224	6.7	1.453	7.5
Fruits and nuts	0.580	12.0	2.712	14.0
Vegetables	0.270	5.6	1.403	7.3
Legumes	0.116	2.4	0.403	2.1
Sugar and sugar products	0.117	3.7	0.719	3.7
Salt and spices	0.102	2.2	0.358	1.9
Fat and oils	0.157	3.3	0.528	2.7
Tea and coffee	0.124	2.6	0.426	2.2
Beverages	0.134	2.7	1.032	5.3
Tobacco	0.115	2.3	0.347	1.8
Others	0.209	4.4	1.720	8.9
Total		100.0		100.0

Source: Ministry of Finance (1975): Household Budget Survey in Bahrain,
(In Arabic).

MEAL PATTERN

Table (32): Meal pattern according to urban and rural areas of Bahrain.

Meal Pattern	Urban		Rural		Total	
	No.	%	No.	%	No.	%
<u>Breakfast</u>						
Not intake	4	1.5	4	7.7	8	2.6
Tea with milk + bread	7	2.7	9	17.3	16	5.2
High protein breakfast ⁽¹⁾	247	95.8	39	75.0	286	92.2
<u>Lunch</u>						
Rice + high protein foods ⁽²⁾	227	88.0	52	100	279	90.0
Rice + high protein foods + fruits	31	12.0	-	-	31	10.0
<u>Supper</u>						
Not intake	7	2.7	1	1.9	8	2.6
Tea with milk + bread	5	1.9	8	15.4	13	4.2
Tea with milk + bread + cheese and/or eggs	75	29.1	14	27.0	89	28.7
Canned vegetables + bread + tea with milk	61	23.6	8	15.4	69	22.3
Rice + meat	4	1.6	11	21.1	15	4.8
Meat or chicken stew + bread + tea with milk	106	41.1	10	19.2	116	37.4
Total	258	100	52	100	310	100

(1) High protein breakfast includes: Tea with milk + cheese and/or eggs.

(2) High protein foods include: fish or meat or chicken

Source: Musaiger, A.O. (1977): A Study of Food Habits in Urban and Rural Areas in Bahrain, Master Thesis Submitted to the High Institute of Public Health, University of Alexandria.

Table (33): Contents of breakfast of preparatory and elementary students in Bahrain.

Area	Sex	Contents of breakfast						
		Milk	Tea with milk	Tea	Eggs	Cheese	Yoghurt	Butter
		%	%	%	%	%	%	%
Preparatory Schools								
Manama	M	30	48	5	19	33	1	5
	F	33	37	3	25	39	2	11
Muharraq	M	10	62	3	34	27	3	11
	F	23.5	52	2	44	38	2	9
Isa Town	M	35	47	7	12	21	0.4	0.4
	F	45	31	4	25	35	0.4	6
Rifa'a	M	5	80	2	23	28	-	10
	F	20.5	58	5	33	37	0.6	12.5
Jidhafs	M	68	15	2	4.5	19	0.4	-
	F	70	9	4	16	29	1	5
Sitra	M	14	63	14	4	26	-	0.7
Total	M	27	51	5	20	27	1	6
	F	34	40	3	30.5	37	1.5	9
Grand Total		27	51	4	25	31.5	1	8
Elementary Schools								
Total	M	9	77.5	8	17	23	1	5
	F	15	78.5	3	26.5	46	2	8
Grand Total		12	78	6	22	34	1.5	7

Source: Musaiger, A.O. (1975): Nutrition Status in Bahraini Schools, Ministry of Education (In Arabic).

INFANT AND CHILDREN FEEDING PRACTICES

Table (34): Distribution of infants by type of feeding in urban and rural areas of Bahrain.

Sex	Breast		Artificial		Mixed		Total	
	No.	%	No.	%	No.	%	No.	%
<u>Urban Areas</u>								
Male	13	9.8	6	4.6	113	85.6	132	100
Female	16	10.7	21	14.1	112	75.2	149	100
<u>Rural Areas</u>								
Male	33	28.2	9	7.7	75	64.1	117	100
Female	20	17.2	6	5.2	90	77.6	116	100
<u>Total</u>								
Male	46	18.5	15	6.0	188	75.5	249	100
Female	36	13.6	27	10.2	202	76.2	265	100
Grand Total	82	16.0	42	8.2	390	75.8	514	100

Source: Amine, E.K. (1980): Bahrain, Nutrition Status Survey, UNICEF, Gulf Area Office, Abu-Dhabi.

Table (35): Distribution of children in early and late childhood by type of feeding in urban and rural areas of Bahrain.

Area	0 - 5 Yrs						6 - 11 Yrs									
	Breast		Artificial		Mixed		Total		Breast		Artificial		Mixed		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Urban	20	9.3	22	10.2	174	80.5	216	100	20	11.2	10	5.6	148	83.2	178	100
Rural	52	21.2	21	8.6	172	70.2	245	100	39	25.5	5	3.3	109	71.2	153	100
Total	72	15.6	43	9.3	346	75.1	461	100	59	17.8	15	4.5	257	77.7	331	100

Source: Mobeayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of Joint UNICEF and High Council for Youth and Sport, Bahrain (In Arabic).

Table (36): Distribution of children in early and late childhood by frequency of breast feeding per day in urban and rural areas of Bahrain.

Frequency of breast feed- ing per day	0 - 5 Yrs						6 - 11 Yrs					
	Urban		Rural		Total		Urban		Rural		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
- 6	156	72.2	177	72.2	333	72.2	130	73.0	130	85.0	260	78.6
7	16	7.4	23	9.4	39	8.5	12	6.7	4	2.6	16	4.8
8	27	12.5	33	13.5	60	13.0	20	11.2	18	11.8	38	11.5
9	4	1.9	7	2.9	11	2.4	3	1.7	-	-	3	0.9
10	3	1.4	5	2.0	8	1.7	3	1.7	-	-	3	0.9
11	-	-	-	-	-	-	1	0.6	-	-	1	0.3
12 +	10	4.6	-	-	10	2.2	9	5.1	1	0.6	10	3.0
Total	216	100	245	100	461	100	178	100	153	100	331	100

Source: Mobayed M. et al (1980); A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (37): Distribution of infants by pattern of weaning in urban and rural areas of Bahrain.

Sex	Artificially fed		Below weaning		Abrupt		Gradual		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Urban Areas</u>										
Male	7	5.3	14	10.6	81	61.4	30	22.7	132	100
Female	20	13.4	12	8.1	91	61.1	26	17.4	149	100
<u>Rural Areas</u>										
Male	9	7.7	17	14.5	78	66.7	13	11.1	117	100
Female	5	4.3	26	22.4	64	55.2	21	18.1	116	100
<u>Total</u>										
Male	16	6.4	31	12.4	159	63.9	43	17.3	249	100
Female	25	9.4	38	14.3	155	58.5	47	17.8	265	100
Grand Total	41	8.0	69	13.4	314	61.1	90	17.5	514	100

Source: Amine, E.K. (1980): Bahrain, Nutrition Status Survey, UNICEF, Gulf Area Office, Abu-Dhabi.

Table (38): Distribution of children in early and late childhood by age of starting abrupt weaning in urban and rural areas of Bahrain.

Age (mo)	0 - 5 Yrs				6 - 11 Yrs			
	Urban		Rural		Urban		Rural	
	No.	%	No.	%	No.	%	No.	%
1 - 3	80	37.0	51	20.9	40	22.5	19	12.4
4 - 6	48	22.2	30	12.2	29	16.3	10	6.5
+ 7	88	40.8	164	66.9	109	61.2	124	81.1
Total %	216	100	245	100	178	100	153	100
% of abrupt weaning	76.7		85.3		76.8		87.8	

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain (In Arabic).

Table (39): Distribution of children in early and late childhood by age of starting of gradual weaning in urban and rural areas of Bahrain.

Age (months)	0 - 5 Yrs				6 - 11 Yrs			
	Urban		Rural		Urban		Rural	
	No.	%	No.	%	No.	%	No.	%
1	29	13.4	-	-	32	17.9	42	27.1
2	12	5.5	-	-	-	-	-	-
3	6	2.8	-	-	-	-	11	7.1
4 - 6	17	7.9	10	4.1	-	-	-	-
7 - 12	29	13.4	82	33.5	18	10.1	34	21.9
+ 13	123	57.0	153	62.4	128	71.9	68	43.9
Total	216	100	245	100	178	100	155	100
% of gradual weaning	23.3		14.7		23.2		12.2	

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (40): Distribution of infants by reasons for weaning in urban and rural areas of Bahrain.

Reasons for weaning	Urban		Rural		Total	
	No.	%	No.	%	No.	%
Infant reached weaning age	57	22.4	52	27.4	109	24.5
New pregnancy	38	14.9	63	33.2	101	22.7
Infant's refusal	39	15.3	30	15.8	69	15.5
Lack of milk secretion	49	19.2	18	9.4	67	15.1
Mother's refusal	32	12.5	13	6.8	45	10.1
Insufficient milk	20	7.8	4	2.1	24	5.4
Mother's illness	15	5.9	7	3.7	22	4.9
Mother's separation from infant	5	2.0	3	1.6	8	1.8
Grand Total	255	100	190	100	445	100

Source: Amine, E.K. (1980): Bahrain, Nutrition Status Survey, UNICEF, Gulf Area Office, Abu-Dhabi.

Table (41) : Age distribution of children in early and late childhood by receiving a supplementary vitamins and minerals in urban and rural areas of Bahrain.

Age (months)	0 - 5 Yrs				6 - 11 Yrs			
	Urban		Rural		Urban		Rural	
	No.	%	No.	%	No.	%	No.	%
< 6	120	55.6	87	35.5	106	59.6	66	43.1
6 - 12	86	39.8	140	57.2	36	20.2	87	56.9
> 12	10	4.6	18	7.3	36	20.2	-	-
Total	216	100	245	100	178	100	153	100

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (42): Distribution of children in early and late childhood by type of supplementary feeding in urban and rural areas of Bahrain.

Type of food	0 - 5 Yrs		6 - 11 Yrs	
	Urban %	Rural %	Urban %	Rural %
Convenient baby foods	50.9	44.9	38.8	43.3
Home made foods	52.3	43.7	72.5	54.9
Powdered milk	55.1	36.7	55.1	37.3
Fresh milk	12.5	12.7	10.7	32.0

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain (In Arabic).

Table (43) : Distribution of children in early and late childhood by age of starting of intake of normal family meals in urban and rural areas of Bahrain.

Age (months)	0 - 5 Yrs				6 - 11 Yrs			
	Urban		Rural		Urban		Rural	
	No.	%	No.	%	No.	%	No.	%
< 12	96	44.4	128	52.2	69	38.8	100	65.3
12 - 18	93	43.1	102	41.6	79	44.3	37	24.2
19 - 24	23	10.7	13	5.3	21	11.8	15	9.8
25 - 30	2	0.9	-	-	6	3.4	1	0.7
> 30	2	0.9	2	0.9	3	1.7	-	-
Total	216	100	245	100	178	100	153	100

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (44): Average weight of consumed food by child in early and late childhood in urban and rural areas of Bahrain.

Food	Area	Early childhood	Late childhood
		(0 - 5 Yrs)	(6 - 11 Yrs)
		grams	grams
Milk	Urban	208	189
	Rural	167	177
Fruit & Vegetables	Urban	76	96
	Rural	67	100
Cereals & Legums	Urban	108	153
	Rural	112	177
Meats & Fish	Urban	20	58
	Rural	15	47
Eggs ⁽¹⁾	Urban	48	58
	Rural	42	59

(1) Average weight of an egg is 54 grams

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (45): Nutritive value of the average weight of food consumed daily by children in early and late childhood of urban and rural areas of Bahrain.

Nutrients	0 - 5 Yrs		6 - 11 Yrs	
	Urban	Rural	Urban	Rural
Energy (Calories)	670	1300	938	2300
Protein (gm)	23.3	16	36.3	27
Retinol (mg)	361	280	454	487
Thiamine (mg)	0.3	0.5	0.4	0.9
Riboflavin (mg)	0.6	0.8	0.7	1.4
Niacin (mg)	4.3	8.8	7.8	15.4
Ascorbic acid (mg)	19.4	20	25.8	20
Calcium (gm)	0.3	0.4	0.3	0.5
Iron (gm)	3.8	7.5	5.6	7.5

Source: Mobayed M. et al (1980) : A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain (In Arabic).

Table (46): Distribution of children by type of food given as a measure against diarrhoea in urban and rural areas of Bahrain.

Type of Food	Urban		Rural		Total	
	No.	%	No.	%	No.	%
Banana	39	20.3	32	22.2	71	22.1
Doctors prescription	20	10.4	24	16.7	44	13.0
Boiled eggs	20	10.4	13	9.0	33	9.7
Seven - up	22	11.5	10	6.9	32	9.5
Tea	12	6.2	14	9.7	26	7.6
Rice water	14	7.3	11	7.6	25	7.4
Starch water	8	4.2	9	6.3	17	5.0
Labneh & Yoghurt	11	5.7	3	2.1	14	4.1
Thyme	6	3.1	1	0.7	7	2.0
Marqadouch (Traditional medicine)	2	1.0	3	2.1	5	1.4
Distilled water	4	2.1	2	1.4	6	1.7
Helba, caster & lemon juice	3	1.6	1	0.7	4	1.1
Undetermined	31	16.2	21	14.6	52	15.4
Total	192	100	144	100	336	100

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain.

MALNUTRITION

Table (47): Prevalence of low height for age in pre-school children and school students (in Bahrain).

	< 90% ⁽¹⁾		> 90% ⁽²⁾		Total	
	No.	%	No.	%	No.	%
<u>Pre-school children</u>						
Male	25	16.0	131	84.0	156	100
Female	18	12.6	125	87.4	143	100
Total	43	14.4	256	85.6	299	100
<u>Primary schools</u>						
Male	14	15.1	79	84.9	93	100
Female	14	11.6	107	88.4	121	100
Total	28	13.1	186	86.9	214	100
<u>Preparatory schools</u>						
Male	1	0.8	119	99.2	120	100
Female	10	8.3	110	91.7	120	100
Total	11	4.6	229	95.4	240	100
<u>Secondary schools</u>						
Male	1	0.8	119	99.2	120	100
Female	8	6.7	112	93.3	120	100
Total	9	3.7	231	96.3	240	100

(1) Chronic undernutrition

(2) Normal

Source: Amine, E.K. (1980): Bahrain Nutrition Status Survey, UNICEF, Gulf Area Office, Abu-Dhabi.

Table (48): Prevalence of low weight for age in pre-school children and school students.

	< 90%		90% +		Total	
	No.	%	No.	%	No.	%
<u>Pre-school children</u>						
Male	100	64.5	55	35.5	155	100
Female	102	70.8	42	29.2	144	100
Total	202	67.6	97	32.4	299	100
<u>Primary schools</u>						
Male	65	69.9	28	30.1	93	100
Female	80	66.1	41	33.9	121	100
Total	145	67.7	69	32.3	214	100
<u>Preparatory schools</u>						
Male	52	43.3	68	56.7	120	100
Female	60	50.0	60	50.0	120	100
Total	112	46.8	128	53.2	240	100
<u>Secondary schools</u>						
Male	55	45.8	65	54.2	120	100
Female	62	51.7	58	48.3	120	100
Total	117	48.8	123	51.2	240	100

Source: Amine, E.K. (1980): Bahrain, Nutrition Status Survey, UNICEF, Gulf Area Office, Abu-Dhabi.

Table (49); Prevalence of low and high weight for height in pre-school children and school students (in Bahrain).

	< 85% (1)		85-119% (2)		120% + (3)		Total	
	No.	%	No.	%	No.	%	No.	%
<u>Pre-school children</u>								
Male	22	14.1	133	85.2	1	0.7	156	100
Female	24	16.7	120	83.3	-	-	144	100
Total	46	15.4	253	84.3	1	0.3	300	100
<u>Primary schools</u>								
Male	11	11.8	77	82.8	5	5.4	93	100
Female	15	12.4	100	82.6	6	5.0	121	100
Total	26	12.1	177	82.7	11	5.2	214	100
<u>Preparatory schools</u>								
Male	39	32.5	76	63.3	5	4.2	120	100
Female	8	6.6	95	79.2	17	14.2	120	100
Total	47	19.6	171	71.2	22	9.2	240	100
<u>Secondary schools</u>								
Male	42	35.0	75	62.5	3	2.5	120	100
Female	14	11.7	88	73.3	18	15.0	120	100
Total	56	23.4	163	67.9	21	8.7	240	100

(1) Acute undernutrition

(2) Normal

(3) Overweight

Source: Amine, E.K. (1980): Bahrain, Nutrition Status Survey, UNICEF, Gulf Area Office, Abu-Dhabi.

Table (50): Prevalence of anaemia in pre-school children and school students (in Bahrain).

	Anaemic		Normal		Total	
	Hemoglobin <11 gms/100ml		Hemoglobin >11gms/100ml			
	No.	%	No.	%	No.	%
<u>Pre-school children</u>						
Male	60	39.2	93	60.8	153	100
Female	42	29.6	100	70.4	142	100
Total	102	34.6	193	65.4	295	100
<u>Primary schools</u>						
	Hb < 12gm/100 ml		Hb > 12gm/100 ml			
Male	28	30.1	65	69.9	93	100
Female	35	29.4	84	70.6	119	100
Total	63	29.7	149	70.3	212	100
<u>Preparatory schools</u>						
Male	27	22.5	93	77.5	120	100
Female	60	50.0	60	50.0	120	100
Total	87	36.3	153	63.7	240	100
<u>Secondary schools</u>						
Male	15	12.5	105	87.5	120	100
Female	59	49.2	61	50.8	120	100
Total	74	30.8	166	69.2	240	100

Source: Amine, E.K. (1980): Bahrain Nutrition Status Survey, UNICEF, Gulf Area Office, Abu Dhabi.

Table (51): Distribution of adults females by Haemoglobin level and age in Urban and Rural areas of Bahrain.

Age (Yrs)	Area	Haemoglobin (gm/100 ml)											
		< 9		9 -		10 -		11 -		12 +		Total	
		No	%	No	%	No	%	No	%	No	%	No	%
< 20	Urban	1	20.0	-	-	-	-	3	60.0	1	20.0	5	100.0
	Rural	-	-	-	-	1	14.3	2	28.6	4	57.1	7	100.0
20-	Urban	-	-	-	-	1	6.2	9	56.3	6	37.5	16	100.0
	Rural	-	-	-	-	4	18.2	4	18.2	14	63.6	22	100.0
25 -	Urban	-	-	4	12.9	2	6.5	12	38.7	13	41.9	31	100.0
	Rural	-	-	-	-	2	12.5	4	25.0	10	62.5	16	100.0
30 -	Urban	-	-	1	4.0	3	12.0	11	44.0	10	40.0	25	100.0
	Rural	-	-	1	4.4	2	8.7	7	30.4	13	56.5	23	100.0
35 -	Urban	-	-	1	7.1	2	14.3	7	50.0	4	28.6	14	100.0
	Rural	-	-	1	6.3	1	6.3	2	12.5	12	75.0	16	100.0
40 +	Urban	-	-	2	11.8	1	5.9	6	35.3	8	47.0	17	100.0
	Rural	-	-	1	5.0	2	10.0	5	25.0	12	60.0	20	100.0
Total	Urban	1	0.9	8	7.4	9	8.4	48	44.4	42	38.9	108	100.0
	Rural	-	-	3	2.9	12	11.5	24	23.1	65	62.5	104	100.0
GRAND TOTAL		1	0.5	11	5.2	21	9.9	72	34.0	107	50.0	212	100.0

Source: Amine, E.K. (1980): Bahrain, Nutrition Status Survey, UNICEF, Gulf Area Office, Abu-Dhabi.

Table (52): Percent distribution of pre-school children by skin-fold in urban areas of Bahrain.

Age	Male (N = 78)					Female (N = 71)				
	Degree of undernutrition			Normal	Total	Degree of undernutrition			Normal	Total
	3rd	2nd	1st	3rd		2nd	1st			
	<70%	-70%	-80%	+90%	<70%	-70%	-80%	+90%		
3 months	-	-	-	-	-	40.0	40.0	-	20.0	100
6 months	-	-	20.0	80.0	100	-	-	33.3	66.7	100
9 months	-	-	100.0	-	100	-	-	100.0	-	100
12 months	16.7	-	16.7	66.6	100	33.3	33.3	-	33.4	100
15 months	-	100.0	-	-	100	33.3	-	-	66.7	100
1.5 Yrs	25.0	25.0	-	50.0	100	-	33.3	33.3	33.4	100
2 Yrs	-	57.1	28.6	14.3	100	25.0	25.0	-	50.0	100
3 Yrs	13.3	20.1	13.3	53.3	100	-	13.3	20.1	66.6	100
4 Yrs	6.7	6.7	26.7	59.9	100	-	38.5	7.6	53.9	100
5 Yrs	21.0	21.1	15.8	42.1	100	20.0	15.0	25.0	40.0	100
Total	12.8	20.5	17.9	48.8	100	12.7	21.1	18.3	47.9	100

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF, and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (53): Distribution of pre-school children by skinfold in rural areas of Bahrain.

Age	Male (N = 78)					Female (N = 73)				
	Degree of undernutrition			Normal	Total	Degree of undernutrition			Normal	Total
	3rd	2nd	1st			3rd	2nd	1st		
	<70%	-70%	-80%	+90%	<70%	-70%	-80%	+90%		
3 months	25.0	-	25.0	50.0	100	-	-	-	100	100
6 months	-	-	-	100	100	-	14.3	14.3	71.4	100
9 months	40.0	40.0	-	2.0	100	28.5	14.3	14.3	42.9	100
12 months	-	-	20.0	80.0	100	12.5	50.0	25.0	12.5	100
15 months	-	-	100.0	-	100	-	-	25.0	75.0	100
1.5 Yrs	-	40.0	60.0	-	100	-	25.0	25.0	50.0	100
2 Yrs	20.0	20.0	30.0	30.0	100	12.5	12.5	50.0	25.0	100
3 Yrs	8.3	16.7	25.0	50.0	100	-	22.2	11.1	66.7	100
4 Yrs	-	30.0	30.0	40.0	100	11.1	33.3	-	55.6	100
5 Yrs	13.1	30.4	21.7	34.8	100	15.4	15.4	7.7	61.5	100
Total	11.5	23.1	25.7	39.7	100	9.6	20.6	16.4	53.4	100

Source: Mobayed M. et al (1980); A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF, and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (54) : Percent distribution of pre-school children by chest/head circumference ratio in urban areas of Bahrain.

Age	Male (N = 78)				Female (N = 71)					
	Degree of undernutrition			Normal	Total	Degree of undernutrition			Normal	Total
	Severe	Moderate				Severe	Moderate			
	<1	= 1	>1	<1	= 1	>1				
3 months	-	-	-	-	80.0	-	20.0	100		
6 months	40.0	-	60.0	100	33.3	-	66.7	100		
9 months	100.0	-	-	100	50.0	-	50.0	100		
12 months	-	-	100.0	100	100.0	-	-	100		
15 months	-	50.0	50.0	100	-	-	100.0	100		
1 - 5 Yrs	-	12.5	87.5	100	-	33.3	66.7	100		
2 Yrs	-	-	100.0	100	-	-	100.0	100		
3 Yrs	13.3	6.7	80.0	100	20.0	6.7	73.3	100		
4 Yrs	13.3	-	86.7	100	-	7.7	92.3	100		
5 Yrs	-	-	100.0	100	-	5.0	95.0	100		
Total	9.0	3.8	87.2	100	12.7	5.6	81.7	100		

Source: Mobayed M. et al (1980); A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF, and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (55): Percent distribution of pre-school children by chest/head circumference ratio in rural areas of Bahrain.

Age	Male (N = 78)				Female (N = 73)			
	Degree of undernutrition		Normal >1	Total	Degree of undernutrition		Normal >1	Total
	Severe <1	Moderate = 1			Severe <1	Moderate = 1		
	<1	= 1	>1	Total	<1	= 1	>1	Total
3 months	50.0	-	50.0	100	-	-	100.0	100
6 months	33.3	-	66.7	100	28.6	-	71.4	100
9 months	20.0	-	80.0	100	14.3	-	85.7	100
12 months	20.0	20.0	60.0	100	-	-	100.0	100
15 months	-	-	100.0	100	-	-	100.0	100
1.5 Yrs	-	-	100.0	100	25.0	-	75.0	100
2 Yrs	20.0	10.0	70.0	100	-	-	100.0	100
3 Yrs	-	8.3	91.7	100	11.1	-	88.9	100
4 Yrs	-	-	100.0	100	11.1	-	88.9	100
5 Yrs	4.3	-	95.7	100	-	-	100.0	100
Total	10.3	3.8	85.9	100	8.2	-	91.8	100

Source: Mobayed M. et al (1980); A Study of the Needs of Childhood in Bahrain, Report of Joint UNICEF, and High Council for Youth and Sport, Bahrain, (In Arabic).

Table (56) : Distribution of children 0 -5 Yrs of age by incidence of parasitic infections in urban and rural areas of Bahrain.

Parasite	Urban						Rural					
	Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<i>Ascaris lumbricoides</i>	2	2.5	-	-	2	1.4	10	15.6	8	11.3	18	13.3
<i>Giardia lamblia</i>	25	31.7	16	25.4	41	28.9	5	7.8	12	16.9	17	12.6
<i>Trichuris trichiura</i>	5	6.3	2	3.2	7	4.9	5	7.8	5	7.0	10	7.4
<i>Hymenolepis nana</i>	-	-	3	4.8	3	2.1	1	1.6	3	4.2	4	3.0
Not infected	47	59.5	42	66.6	89	62.7	43	67.2	43	60.6	86	63.7
Total	79	100	63	100	142	100	64	100	71	100	135	100

Source: Mbayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of Joint UNICEF and High Council for Youth and Sport, Bahrain (In Arabic).

Table (57): Distribution of children 0 - 5 Yrs of age by incidence of sickle cell anemia in urban and rural areas of Bahrain.

Level	Urban						Rural					
	Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
S - A (Trait)	6	7.8	3	4.5	9	6.3	19	25.0	18	25.7	37	25.3
S - F (H.B.F < 3%)	-	-	-	-	-	-	1	1.3	-	-	1	0.7
S - F (H.B.F = 3%)	-	-	-	-	-	-	2	2.6	1	1.4	3	2.0
S - F (H.B.F = 6%)	-	-	-	-	-	-	2	2.6	-	-	2	1.4
S - F (H.B.F = 9%)	-	-	-	-	-	-	-	-	1	1.4	1	0.7
S - F (H.B.F = 12%)	-	-	-	-	-	-	1	1.3	-	-	1	0.7
S - F (H.B.F > 15%)	-	-	-	-	-	-	1	1.3	-	-	1	0.7
Normal	71	92.2	64	95.5	135	93.7	50	65.9	50	71.5	100	68.5
Total	77	100	67	100	144	100	76	100	70	100	146	100

Source: Mubayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain. (In Arabic).

Table (58): Percent distribution of primary school students by skinfold in urban areas of Bahrain.

Age (Yrs)	Male (N = 54)					Female (N = 78)				
	Degree of undernutrition			Normal	Total	Degree of undernutrition			Normal	Total
	3rd	2nd	1st			3rd	2nd	1st		
	<70%	-70%	-80%	+90%	<70%	-70%	-80%	+90%		
6	12.5	25.0	12.5	50.0	100	25.0	31.2	18.8	25.0	100
7	7.6	15.4	23.1	53.9	100	25.0	25.0	31.3	18.7	100
8	-	-	-	100.0	100	30.0	-	30.0	40.0	100
9	22.2	11.1	11.1	55.6	100	55.6	33.3	-	11.1	100
10	50.0	-	25.0	25.0	100	22.2	11.1	11.1	55.6	100
11	11.1	-	-	88.9	100	33.3	22.3	-	44.4	100
Total	16.7	9.2	13.0	61.1	100	29.4	20.5	16.7	33.4	100

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain.

Table (59): Percent distribution of primary school students by skin-fold
in rural areas of Bahrain.

Age (Yrs)	Male (N = 39)					Female (N = 43)						
	Degree of undernutrition				Normal	Total	Degree of undernutrition				Normal	Total
	3rd	2nd	1st				3rd	2nd	1st			
	<70%	-70%	-80%	+90%	<70%	-70%	-80%	+90%				
6	-	33.3	50.0	16.7	100	22.2	11.1	-	66.7	100		
7	14.2	-	28.6	57.2	100	30.7	-	46.2	23.1	100		
8	-	22.2	22.2	55.6	100	12.5	12.5	12.5	62.5	100		
9	40.0	60.0	-	-	100	14.3	28.6	-	57.1	100		
10	25.0	25.0	37.5	12.5	100	40.0	-	-	60.0	100		
11	50.0	-	-	50.0	100	-	-	100.0	-	100		
Total	18.0	23.1	25.6	33.3	100	23.3	9.3	18.6	48.8	100		

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain,
Report of joint UNICEF and High Council for Youth and Sport, Bahrain.

Table (60): Percent distribution of primary school students by mid-upper-arm circumference in urban areas of Bahrain.

Age (Yrs)	Male (N =54)					Female (N = 78)						
	Degree of undernutrition				Normal	Total	Degree of undernutrition				Normal	Total
	3rd	2nd	1st				3rd	2nd	1st			
	<70%	-70%	-80%	+90%	70%	-70%	-80%	+90%				
6	-	-	62.5	37.5	100	6.2	6.3	50.0	37.5	100		
7	-	23.1	20.7	46.2	100	-	-	62.5	37.5	100		
8	-	-	42.9	57.1	100	-	10.0	40.0	50.0	100		
9	-	-	33.3	66.7	100	11.1	-	33.3	55.6	100		
10	12.5	12.5	37.5	37.5	100	-	5.6	44.4	50.0	100		
11	-	-	44.4	55.6	100	-	11.1	44.5	44.4	100		
Total	1.9	7.4	40.7	50.0	100	2.7	5.1	47.4	44.8	100		

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain.

Table (61): Percent distribution of primary school students by mid-upper-arm circumference in rural areas of Bahrain.

Age (Yrs)	Male (N = 39)					Female (N = 43)				
	Degree of undernutrition			Normal	Total	Degree of undernutrition			Normal	Total
	3rd	2nd	1st			3rd	2nd	1st		
	<70%	-70%	-80%	+90%	>70%	-70%	-80%	+90%		
6	-	-	66.7	33.3	100	-	-	33.3	66.7	100
7	-	-	71.4	28.6	100	-	7.7	69.2	23.1	100
8	-	-	55.6	44.4	100	-	-	25.0	75.0	100
9	-	60.0	40.0	-	100	-	14.3	14.3	71.4	100
10	-	12.5	50.0	37.5	100	-	20.0	60.0	20.0	100
11	-	-	50.0	50.0	100	-	-	100.0	-	100
Total	-	10.2	56.4	33.4	100	-	7.0	44.2	48.8	100

Source: Mobayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High Council for Youth and Sport, Bahrain.

Table (62) : Distribution of children 6 - 11 yrs of age by incidence of sickle cell anemia in urban and rural areas of Bahrain.

Level	Urban						Rural											
	Male			Female			Total			Male			Female			Total		
	No.	%		No.	%		No.	%		No.	%		No.	%		No.	%	
S.A. (Trait)	4	7.4		9	11.5		13	9.8		11	28.2		15	39.5		26	33.8	
S.F (H.B.F < 3%)	-	-		-	-		-	-		-	-		1	2.6		1	1.3	
S.F (H.B.F = 3%)	-	-		-	-		-	-		2	5.1		1	2.6		3	3.9	
S.F (H.B.F = 6%-8%)	-	-		-	-		-	-		1	2.6		-	-		1	1.3	
Normal	50	92.6		69	88.5		119	90.2		25	64.1		21	55.3		46	59.7	
Total	54	100		78	100		132	100		39	100		38	100		77	100	

Source: Mubayed M. et al (1980): A study of the Needs of Childhood in Bahrain, Report of joint UNICEF and High. Council for Youth and Sport, Bahrain, (In Arabic).

Table (63): Distribution of children 6 - 11 Yrs of age by incidence of parasitic infections in urban and rural areas of Bahrain.

Parasite	Urban						Rural					
	Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<i>Ascaris lumbricoides</i>	-	-	-	-	-	-	5	13.1	3	8.8	8	11.1
<i>Giardie lamblia</i>	5	10.9	13	20.6	18	16.5	1	2.6	3	8.8	4	5.6
<i>Trichuris trichicora</i>	5	10.9	9	14.3	14	12.9	9	23.7	4	11.8	13	18.1
<i>Hymenolepsis nana</i>	1	2.2	1	1.6	2	1.8	4	10.6	2	5.9	6	8.3
<i>Entamoeba hystolitica</i>	2	4.3	-	-	2	1.8	-	-	-	-	-	-
Not infected	33	71.7	40	63.5	73	67.0	19	50.0	22	64.7	41	56.9
Total	46	100	63	100	109	100	38	100	34	100	72	100

Source: Mubayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of joint UNICEF and the High Council for Youth and Sport, Bahrain (In Arabic).

Table (64): Distribution of children 6 - 11 yrs of age by incidence of cavities and mottling in teeth in urban and rural areas of Bahrain.

Incidence	Urban				Rural							
	Male		Female		Male		Female		Total			
	No.	%	No.	%	No.	%	No.	%				
Mottling	11	20.4	13	16.0	24	17.8	8	19.1	5	11.6	13	15.3
Cavities	28	51.9	34	42.0	62	45.9	20	47.6	21	48.8	41	48.2
Not present of mottling and cavities	15	27.7	34	42.0	49	36.3	14	33.3	17	39.6	31	36.5
Total	54	100	81	100	135	100	42	100	43	100	85	100

Source: Mabayed M. et al (1980): A Study of the Needs of Childhood in Bahrain, Report of Joint UNICEF and High Council for Youth and Sport, Bahrain (In Arabic).

