WOMEN and CHILDREN in the URBAN-UNDERPRIVILEGED SECTOR of the JAFFNA MUNICIPALITY

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This publication is the result of the work carried out by the Department of Community Medicine, Faculty of Medicine, University of Jaffna and the Municipality of Jaffna.

It deals with the socio-economic and health aspects of the urban-underprivileged in Jaffna, with special emphasis on mothers and children.

Documentation of studies of this nature is very essential for identification of problems and provision of health care. The author and all associated with this study should be highly commended for their efforts.

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March 1987

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I acknowledge the secretarial assistance of Aracy Canaghasapai of the Department of Community Medicine.

The dedicated work of the volunteer health workers and the staff of the Jaffna Municipality enabled us to complete the survey on schedule, I am very grateful to them.

N. Sivarajah

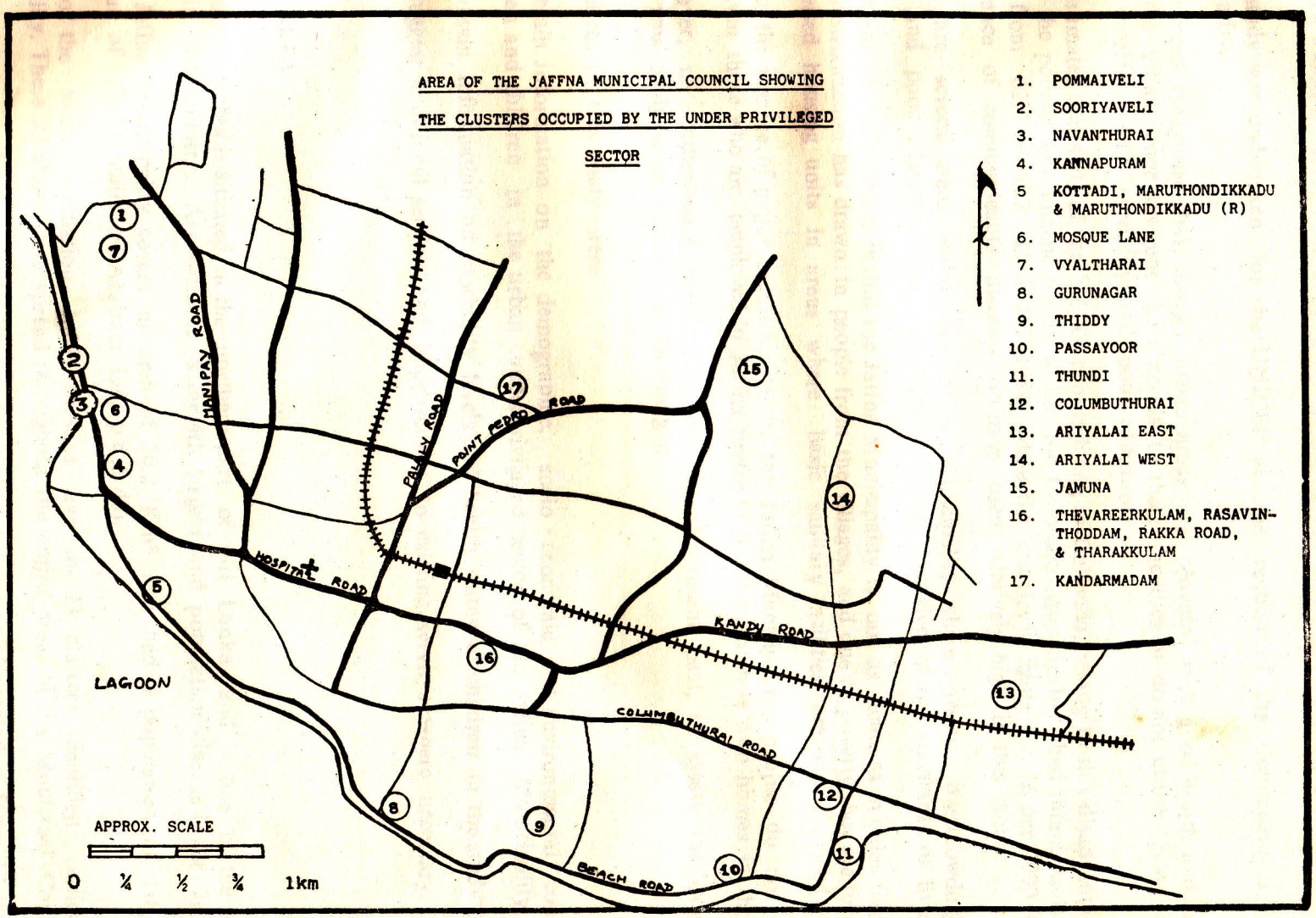
AREA OF THE JAFFNA MUNICIPAL COUNCIL SHOWING
THE CLUSTERS OCCUPIED BY THE UNDER PRIVILEGED
SECTOR
1. POMMAIVELI
2. SOORIYAVELI
3. NAVANTHURAI
4. KANNAPURAM
5 KOTTADI, MARUTHONDIKKADU & MARUTHONDIKKADU (R)
6. MOSQUE LANE
7. VYALTHARAI
8. GURUNAGAR
9. THIDDY
10. PASSAYOOR
11. THUNDI
12. COLUMBUTHURAI
13. ARIYALAI EAST
14. ARIYALAI WEST
15. JAMUNA
16. THEVAREERKULAM, RASAVINTHODDAM, RAKKA ROAD, & THARAKKULAM
17. KANDARMADAM
MANIPAY ROAD
PALAILY ROAD
POINT PEDRO ROAD
HOSPITAL ROAD
KANDY ROAD
COLUMBUTHURAI ROAD
BEACH ROAD
LAGOON
APPROX. SCALE
0 ¼ ½ ¾ 1km

Figure: 1

LAGOS
0
1 KM
KILOMETRES
1 MILE
GOOD ROAD
MAIN ROAD
1. PORTUGUESE
2. BRAZILIAN
3. CUBA
4. SAO THOME
5. ANGOLA
6. GABON
7. CAMEROONS
8. NIGERIA
9. DAHOMEY
10. PORTO NOVO
11. IJEBU
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15. IBADAN
16. OTTA
17. ABEOKUTA
18. ILESHA
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Figure 1

1. INTRODUTION

This study was undertaken for the UNICEF at the request of the Commissioner, Municipal Council, Jaffna.

It has been recognised that though urban areas are provided with good health and educational facilities, the urban poor do not have access to these facilities or do not utilize them; resulting in increased morbidity and mortality and poor education.

It is estimated that 45% of the 586,000 people living in Colombo, belong to this disadvantaged group. Three of the poorest low income wards within the Colombo Municipality had infant mortality rates ranging from 62.4 to 65.3 (UNICEF, 1984) while the country's figure was 37 per 1000 live births. The incidence of communicable diseases too have been relatively high in this group.

There are several areas within the Jaffna Municipality where poverty, overcrowding, lack of sanitation and poor education have contributed towards lowering of the standards of living.

The extent of the problem within the Jaffna Municipality is not as acute as in cities like Colombo where industrialization has drawn in people from the villages, and due to poverty they are forced to live in improvised housing units in areas where basic sanitary facilities are not provided.

Due to the absence of major industries within the Jaffna Municipality, people do not migrate to the city. Even those who are employed in Jaffna, prefer to travel from their own homes in their villages.

However, no studies have been carried out in the recent past, to assess the extent of the problem. This study is an attempt to fill this gap.

The objectives of this study were

(1) To obtain information on the demographic, socio - economic and environmental conditions of women and children in the urban - underprivilaged sector of the Jaffna Municipality.

(2) To obtain information on morbidity levels and health status of children in the study population.

(3) To suggest additional services and improvement to existing services where necessary.

2. THE AREA

The city of Jaffna is situated in the northern part of Sri Lanka, and is one of the 12 municipalities in the country. Area-wise it is the 4th largest and population-wise it is the 3rd largest.

The Jaffna Municipality covers an area of 20.2 Km^2 and had a population of 118,215 during the census of 1981 (Statistical Abstract 1982 p 6 & 40).

Out of the total population, 18099 persons live in 23 clusters identified earlier by the Municipality. These 23 clusters are spread throughout the entire area of the Municipal Council.

For the purpose of this study some adjoining clusters were amalgamated to form 17 clusters given in Annex 1 and shown in figure 1.

3. METHODOLOGY

The survey was carried out in two stages in the 17 clusters identified. During the first phase, a questionaire was used to elicit the data. It contained questions pertaining to, data on demographic particulars, socio-economic conditions, education, sanitation, immunization status of children, family planning, utilization of maternal care services and mortality.

The questionaire was administered by trained interviewers who had earlier functioned as volunteer health workers assisting the Public Health Midwives (PHM) in their field work and at the clinics. These interviewers were supervised by 9 Public Health Midwives, 3 Health Workers, 1 Public Health Nurse and 4 Community Development Officers who were all employees of the Jaffna Municipal Council.

The interviewers and supervisors had a good knowledge of the area and had been working in the area for a considerable time.

The information was obtained from the head of the family, the wife or a child over 15 years of age. 3577 families were interviewed. There were no refusals. The distribution of the families by the person giving information is given in Table 3. 1.

Table 3.1 **Distribution of families interviewed, by person giving information**

Person giving information	Number	%
Head of family	480	13.4
Wife	2689	75.2
Child over 15 years	408	11.4
Total	3577	100.0

During the second phase of the survey, a 10%, age - stratified random sample of the 2892 children under 5 years, were medically examined. A specimen of stools was collected from these children and examined for parasitic infestations. The survey was started in August 1985 and completed in March 1986.

4. DEMOGRAPHIC PATTERN

The area studied had a population of 18099 living in 17 clusters (Annex 1). The distribution of the population by age groups is given in table 4·1. Out of the total population, 2892 (16·0%) are under 5 years old. The distribution of these children who are under 5 years is given in Table 4.2, On comparing this with the percentage distribution for Sri Lanka this proportion appears high (Table 4.3).

Table 4·1 **Population by age and sex**

Age group	Sex		Total	
(in years)	Male	Famale	Number	%
Under 1	304	292	596	3·3
1 — 4	1150	1146	2296	12·7
5 — 9	1259	1313	2572	14·2
10 — 14	1129	1120	2249	12·4
15 — 19	935	979	1914	10·5
20 — 24	767	987	1754	9·7
25 — 29	649	813	1462	8·1
30 — 34	585	651	1236	6·8
35 — 39	574	521	1095	6·1
40 — 44	360	376	736	4·1
45 — 49	305	333	638	3·5
50 — 54	242	206	448	2·5
55 — 59	232	170	402	2·2
60 — 64	148	114	262	1·4
65 — 69	104	88	192	1·1
70 — 74	70	51	121	0·7
75 +	76	50	126	0·7
Total	8889	9210	18099	100·0

Table 4.2 **Children under 5 years by age and sex**

Age group	sex		Total
(in months)	Male	Female	
Under 12	304	292	596
12—23	284	267	551
24—35	281	290	571
36—47	288	302	590
48—59	297	287	584
Total	1454	1438	2892

Table 4.3 **Composition of population**

Age group (in years)	Percentage	
	Study area	Sri Lanka *
Under 1	3.3	2.7
1—4	12.7	9.8
5—14	26.6	22.8
15—44	45.3	47.6
45—54	6.0	7.8
55—64	3.6	5.1
65 +	2.5	4.3
Total	100.0	100.1

* Source : Department of Census and Statistics: Population based on 10% sample. February 1982.

Hindus constitute 49.5% and Roman Catholics 33·5% of the population (Table 4·4)

The distribution of the population by marital status is given in Table 4·5. Teenage marriage is high with 118 girls (12·1%) under 20 years already married.

Table 4·4 **Population by religion (of persons 5 years - old and above)**

Religion	Number	%
Hindu	7527	49·5
Roman Catholic	5100	33·5
Christian (other than Roman Catholics)	254	1·7
Muslim	2279	15·0
Others / Not recorded	47	0·3
Total	15207	100·0

Table 4·5 **Population by marital status**

Age group	Single		Married		Widowed		Total	
(in years)	M	F	M	F	M	F	M	F
Uader 15	3834	3869	0	2	0	0	3842	3863
15 — 19	926	863	17	116	0	0	935	987
20 — 29	545	516	222	460	1	15	649	813
30 — 34	65	53	514	577	6	21	585	651
35 — 39	14	19	558	477	2	25	574	521
40 +	24	34	1416	1037	95	317	1537	1388
Total	5610	5532	3173	3291	104	387	8889	9210

5. SOCIO - ECONOMIC STATUS

5.1 INCOME

The distribution of the families by income received is given in Table 5.1. A majority of them (82.6% - get a monthly income of less than Rs. 1000.00. With an average family size of 5.1 (Annex 2) the in) come per head is less than Rs. 200.00.

Table 5.1 **Distribution of families by income**

Monthly income (in Rupees)	Number	%
Under 500	1103	30.8
500—999	1852	51.8
1000—1499	466	13.0
1500—1999	124	3.5
2000+	32	0.9
Total	3577	100.0

5.2 EXPENDITURE

Table 5.2 gives a breakdown of the expenditure on food, clothing and house rent. An overwhelming majority of famillies 95.8% spend more than half their income on food and 79.7% spend less than one quarter of their income on clothing.

The declared expenditure on alcohol and smoking is given in Table 5.3. Even though this is probably an under estimate, 24.4% of the families spend a portion of their income on alcohol and 30.5% spend a portion of their income on tobacco.

Table 5.2 **Expenditure of families on basic requirements**

Percentage of income spent	Food		Clothing		House rent	
	No.	%	No.	%	No.	%
0 – 25%	2	0.06	2851	79.70	584	16.33
26 — 50%	125	3.50	140	3.91	4	0.11
51 — 75%	1362	38.08	2	0.06	0	—
76 – 100%	2065	57.72	1	0.03	0	—
Not recorded or not applicable	23	0.64	583	16.30	2989	83.56
Total	3577	100.00	3577	100.00	3577	100.00

Table 5.3 **Expenditure on alcohol and smoking**

Percentage of family income spent	Alcohol		Smoking	
	No.	%	No.	%
Nothing spent	2704	75.6	2488	69.5
1 — 25%	840	23.5	1083	30.3
26 — 50%	33	0.9	6	0.2
51 — 75%	0	—	0	—
76 — 100%	0	—	0	—
Total	3577	100.0	3577	100.0

5.3 HOUSEHOLD GOODS, VEHICLES AND ANIMALS

The possession of some selected household goods were enquired into and the findings are given in Table 5·4. A bicycle or a radio is possessed by about a quarter of the households. There were six persons owning cars. They were all taxis.

Table 5·4 **Households possessing selected household goods and vehicles**

Household item or vehicle	Number	%
Bicycle	668	24·7
Radio	636	23·5
Television set	71	2·6
Scooter/Motor Bicycle	96	3·5
Sewing Machine	3	1·0
Car	6	2·0

The households having pets and other domestic animals is given in Table 5·5 29.6% of the households were reartng dogs. On an average, 1000 households have 350 dogs.

Table 5·5 **Households rearing animals and pets**

Animal of pet	Number of households with animals or pets	%	Total Number of animals	Animals/ pets per household
None	1562	57·5	—	—
Dogs	804	29.6	957	1·2
Poultry	433	15·9	1134	2·6
Goats	334	12·3	467	1·4
Cattle	123	4·5	164	1·3
pigs	10	0·4	30	3·0

Out of the total population in the study area 20·6% are employed (Table 5·6).

The distribution of the persons employed, by age, sex and marital status is given in Table 5·7 and 5·8.

Table 5·6 **Distribution of population (all ages) by employment**

	Males	Females	Total	
			Number	%
Number employed	3447	289	3736	20·6
Number drawing pension or charitable allowance	38	10	48	0·3
Number unemployed	5404	8911	14315	79·1
Total	8889	9210	18099	100·0

Number of families with both parents employed = 61.

Among those employed, 7·7% are women and a majority of them are married.

A disturbing factor is that 56·3% of the boys between 20-24 years of age are unemployed and not attending school. (Table 6·2).

The distribution of the population by their occupation is given in Table 5·9. A majority (71·2%) work as unskilled laboures. Skilled labourerrs are mainly masons, carpenters, tailors, mechanics, fisherman etc. Among those living in the study area, 11·1% are persons holding technical and clerical posts. This is because some of the clusters surveyed (Tharakulam, Pommaiveli and Gurunagar) included housing schemes for a low income groups and some of these house are occupied by persons holding technicol and clerical posts.

Most of the women (55·7%) work as unskilled labourers.

Table 5.7 **Distribution of employed persons by age, sex and marital status**

Age group (in years)	Males		Females		Total
	Single	Married	Single	Married	
Under 15	26	0	5	0	31
15 — 19	177	6	13	0	196
20 — 24	249	209	29	4	491
25 — 29	108	427	14	11	560
30 — 34	39	492	7	26	564
35 — 39	11	542	4	41	598
40 — 44	3	341	2	36	382
45 — 49	3	260	1	32	296
50 — 54	1	197	0	27	225
55 +	2	354	1	36	393
Total	619	2828	76	213	3736

Table 5.8 Employment by age and sex

Age group (in years)	Males			Females		
	Population	Number employed	%	Population	Number employed	%
10 — 14	1129	26	2.3	1120	5	0.4
15 — 24	1702	641	37.7	1966	46	2.3
25 — 34	1234	1066	86.4	1464	58	4.0
35 — 44	934	897	96.0	897	83	9.3
45 — 54	547	461	84.3	539	60	11.1
55 +	630	354	56.2	410	37	9.0

Table 5.9 Distribution of population by occupation

Occupation	Male	Female	Total	
			Number	%
Professional	0	0	0	00
Technical	47	08	55	1.5
Clerical	309	53	362	9.7
Skilled labourer	592	67	659	17.6
Unskilled labourer	2499	161	2660	71.2
Total	3447	289	3736	100.0

6. EDUCATION

Sri Lanka has literacy rate of 86.5% (Statistical abstract, 1982) and the Jaffna society has traditionally given a prominent place to education.

But this does not appear to be so with the children in the underprivilaged sector living within the Jaffna Municipality.

Only 14.2% of the 584 children who are 4 years old attend preschool (Table 6.1).

Table 6.1 Preschool attendance by four year old children

	Male		Female		Total	
	Number	%	Number	%	Number	%
Attending preschool	52	17.5	31	10.8	83	14.2
Not attending preschool	245	82.5	256	89.2	501	85.8
Total	297	100.0	287	100.0	584	100.0

About 17 additional preschools are needed in these areas to cater to these children.

School attendance too is poor. Among the 5 — 9 year old boys 22·5% do not attend school. Among the 10 — 14 year old boys, 2·3% are employed and 27·4% do not attend school and remain unemployed (Table 6·2). This could lead to juvenile delinquency among this sector and some arrangements should be made to put them into school.

Table 6·2 **Schooling and or employment of males, 5 — 24 year old**

Schooling/ Employment	Age group (in years)			
	5 — 9	10 — 14	15 — 19	20 — 24
Number in preschool	65 (5·1%)	—	—	—
Number in school	911 (72·4%)	794 (70·3%)	330 (35·3%)	57 (7·4%)
Number employed	—	26 (2·3%)	190 (20·3%)	278 (36·3%)
Number unemployed and not attending school	283 (22·5%)	309 (27·4%)	415 (44·4%)	432 (56·3%)
Total	1259 (100·0%)	1129 (100·0%)	935 (100·0%)	767 (100·0%)

It is unfortunate that most of the underprivilaged live around the 'big' schools in Jaffna. The boundary wall of some of the schools form part of their homes — but these schools remain inaccessible to these children.

A sociological survey to identify the reasons for this ironical state is essential.

There isn't much difference in the pattern of schooling between the boys and girls (Table 6·3), except that more girls than boys continue schooling. The boys probably give up schooling in search of some job but most of those out of school remain unemployed.

Table 6.3 **Schooling and or employment of females, 5—24 years old**

Schooling/Employment	Age group (in years)			
	5—9	10—14	15—19	20—24
Number in preschool	75(5.7%)	—	—	—
Number in school	925(70.5%)	831(74.2%)	364(37.2%)	121(12.3%)
Number employed	—	1(0.1%)	6(0.6%)	213(21.6%)
Number unemployed and not attending school	313(23.8%)	288(25.7%)	609(62.2%)	653(66.1%)
Total	1313(100.0%)	1120(100.0%)	979(100.0%)	987(100.0%)

7. HOUSING AND SANITATION

A majority of households are single familied households (Table 7.1).

For the purpose of this study, members in a household who cook together were taken as a family unit.

Table 7.1 **Households by number of families**

Number of families in each household	Households	
	Number	%
1	2037	75.3
2	510	18.8
3	126	4.7
4	33	1.2
Total	2706	100.0

The distribution of the ownership of the land they occupy, is given in Table 7.2. Most of them (54.4%) own the land or pay a rent; 45.1% live on encroached land.

Table 7.2 **Families by ownership of land**

Ownership of land	Number of families	%
Own land	1186	33.2
Rented or leased	757	21.2
Government land — rent not paid	612	17.1
Municipality land — rent not paid	67	1.9
Temple land — rent not paid	384	10.7
Private ownership — rent not paid	552	15.4
Not recorded	19	0.5
Total	3577	100.0

The number of households by the type of housing unit is given in Table 7.3.

Table 7.3 **Households by type of housing**

Condition of house	Number of households	%
Roof and walls of permanent material	1005	37.1
Roof and walls of temporary material	1376	50.8
Roof of permanent and wall of temporary material	80	3.0
Roof of temporary and wall of permanent material	245	9.1
Total	2706	100.0

The apparent high percentage (37·1%) of houses with permanent roof and walls is due to the inclusion of low income housing schemes within the study area. However the balance 62·9% of the households need permanent housing.

The distribution of households by source of water for drinking and washing is given in Tables 7·4 and 7·5.

Pipe borne water supply to Jaffna town is during restricted hours. More than half (52.1%) of this population depend on this water supply for drinking, which is pumped directly from a well nearly 4 km away.

Table 7·4 **Households by source of water for drinking**

Source of water	Number	%	Number	%
Well	1295	47·9		100·0
Own well			212	16·4
Shared well			104	8·0
Public well			584	45·1
Neighbour's well			395	30·5
Pipe borne	1411	52·1		100 0
Tap inside house			21	1·5
Street tap			1258	89·2
Tap in neighbour's house			128	9·1
Others			4	0·2
Total	2706	100·0		

Table 7.5 **Households by source of water for washing**

Source of water	Number	%	Number	%
Well	2436	90.0		100.0
Own well			1133	46.5
Shared well			201	8.3
Public well			468	19.2
Neighbour's well			634	26.0
Pibe borne	270	10.0		100.0
Tap inside house			43	16.0
Street tap			141	52.2
Tap in neighbour's house			74	27.4
Others			12	4.4
Total	2706	100.0		

The availability of latrines is given in Table 7.6. Sixty three percent of the households do not have latrines.

Table 7.6 **Households by availability of latrines**

Types of latrines	Number	%
No latrines	1707	63.0
Water seal	711	26.3
Pit	185	6.9
Bucket	103	3.8
Total	2706	100.0

The non-availability of latrines varied with each cluster. In Sooriyaweli, latrines were not available in 95.7% of the households and in Kannapuram only 20.3% of the households did not have latrines (see annex 3).

When enquired as to where they go for defaecation, 29% indicated that they use the backyards and 15.3% use the drains, street or the beach (Table 7.7). Another 47.2% of the households indicated that they use the neighbour's latrine or public latrine. This may be an exaggerated figure and in any case the children rarely use the latrines.

Table 7.7 **Place of defaecation by 'grown ups', in households with no latrines**

Place of defaecation	Number of households	%
Backyard	495	29.0
Public latrine	418	24.5
Neighbour's latrine	388	22.7
Along street / drain / beach	261	15.3
Defaecation yard	145	8.5
Total	1707	100.0

Even among the 999 households which have latrines in their households, it is only in the case of 78.2% of the households that all the occupants use the latrine. Usually the children defaecate outside.

There were 103 bucket latrine in the study area.

Table 7·8 **Usage of latrines available in the premises**

Used by	Number	%
All	781	78·2
Grown-up person only	207	20·7
Grown-up females only	08	0·8
Grown-up males only	01	0·1
Not recorded	02	0·2
Total	999	100·0

The method of disposal of refuse is given in Table 7·9. A majority of the households dispose the refuse by burning or burying.

Table 7·9 **Number of households by method of disposal of refuse**

Method of refuse disposal	Number	%
Burning	1163	43·0
Burying	655	24·2
Indescriminate throwing	367	13·6
Removed by Municipality	361	13·3
Sold	100	3·7
Composte making	60	2·2
Total	2706	100·0

The distribution of families by source of power for lighting is given in Table 7.10. A majority (86.06%) use kerosine and 13.9% use electricity. Most of those who use electricity are those who live in the housing schemes in Tharakulam, Gurunagar flats and part of Pommaiveli.

Table 7.10 **Families by source of power for lighting**

Source of power	Number	%
Kerosine	2329	86·06
Electricity	376	13·90
Not recorded	1	0·4
Total	2706	100·00

8. IMMUNIZATION

BCG IMMUNIZATION

More than half the infants (55.3%) who are under one month old have not had their BCG Vaccine (Table 8.1). This is probably because 55.2% of the deliveries occur in Municipal maternity homes, Private nursing homes and at home where facilities for BCG immunization are not available (Table 10.2). However even among the children 6 month old and over only 78.9% have had their BCG vaccination.

TRIPLE (DPT) AND POLIO (OPV) IMMUNIZATION

The immunization status of children who have had triple and polio immunization is given in Table 8.2 and children with age appropriate immunization is given in Table 8.3.

Table 8·1 Status of BCG Immunization of children under 5 years

Age (in months)	Number of children	Number given BCG	% immunized
Under 1	38	17	44·7
1	40	23	57·5
2	53	36	67·9
3	65	44	67·7
4	56	44	78·6
5	54	40	74·1
6 +	2586	2041	78·9
Total (Under 60 months)	2892	2245	77·6

Table 8·2 Immunization status of children with Triple (DPT) and Polio (OPV) vaccines

Age (in months)	Doses given						Total
	1	2	3	4	Nil	Not known	
Under 4	32	—	—	—	159	5	196
4 — 5	43	14	—	—	50	3	110
6 — 7	17	24	8	—	27	0	76
8 — 9	12	32	53	—	23	0	120
10 — 11	5	12	43	—	25	9	94
12 — 15	4	21	96	—	26	4	151
16 — 18	6	11	105	29	37	0	188
19 — 21	2	15	54	24	24	0	119
22 — 24	11	18	89	53	45	0	216
25 +	62	94	625	477	364	0	1622
Total	194	241	1073	583	780	21	2892

Table 8·3 **Children with age appropriate immunization, with Triple (DPT) and oral Polio (OPV) vaccines**

Age (in months)	Total population	Minimum doses expected to be given	Number with age appropriate immunization	% with age appropriate immunization
4 — 5	110	1	57	51·8
6 — 7	76	2	32	42·1
8 — 9	120	3	53	44·2
10 — 11	94	3	43	45·7
19 — 21	119	4	24	20·2

Among the 110 children who were 4 and 5 months old, only 51·8% have had their first dose of DPT and of OPV. Among the 94 children who were 10 and 11 months old only 45·7% had 3 doses of DPT and OPV. Among the 119 children who were 19 - 21 months old only 20·2% had 4 doses of DPT and OPV.

Out of the 1622 children who were between 25 months and 59 months only 477 (29·4%) had all four doses of DPT and OPV indicating that even late immunization is not occurring.

The number of infants 8 months and over who have been immunized with BCG, 3 doses of DPT and 3 doses of polio vaccine, are given in Table 8·4. Measles vaccine was not included in the study as it was introduced only during the survey.

Only 44·4% of the infants 8 — 11 months old have been completly immunized.

An intensive immunization programme is an immediate and urgent need for this underprivilaged group.

Table 8.4 **Infants with complete immunization**

Age (in months)	Total number of infants	Infants with complete immunization	
		Number	%
8 — 9	120	51	42.5
10 — 11	94	44	46.8
8 — 11	214	95	44.4

9 FAMILY PLANNING

The total number of ever married women over 15 years of age is 3676 (Table 4.5). Out of them 583 women (15.9%) are practicing some family planning method.

The distribution of the families practicing family planning is given in Table 9.1

Table 9.1 **Families practicing family planning, by method**

Method	Number	%
Female sterilization	504	86.5
Intrauterine contraceptive device	30	5.2
Male sterilization	21	3.6
Oral contraceptive pill	12	2.0
Injectables (Depoprovera)	11	1.9
Foam tablets	02	0.3
Condoms	01	0.2
Others	02	0.3
	583	100.0

A majority (86.5%) of those practicing family planning have undergone female sterilization.

10. UTILIZATION OF MATERNAL CARE SERVICES

The Jaffna General Hospital (Teaching) with 1015 beds (Annual Health Bulletin, Sri Lanka 1983) is situated with the Jaffna Municipality. It has 141 maternity beds.

In addition there are 5 Municipal Maternity Homes and a few Private Nursing Homes where maternity patients are admitted.

During the survey 266 pregnant women were interviewed. The actual number may be more, as those who are in the early months of pregnancy may have been missed.

The distribution of the pregnant women by age groups is given in Table 10.1. A majority (61.3%) are the 20—29 years old. However a considerable number (9.4%) are under 20 years old.

Table 10.1 **Number of pregnant women by age group**

Age group (in years)	Number	%
Under 20	25	9.4
20 — 24	90	33.8
25 — 29	73	27.5
30 — 34	48	18.0
35 — 39	27	10.2
40 — +	3	1.1
Total	266	100.0

During the one year prior to the survey 611 children were born. The distribution of the live births is given in Table 10.2 and distribution by birth weight is given in Table 10.3.

Table 10.2 **Distribution of live births, by place of delivery**

Place of delivery	Number	%
General Hospital, Jaffna	274	44.8
Municipal Maternity Home	254	41.6
Home	45	7.4
Private Hospitals	38	6.2
Total	611	100.0

Table 10.3 **Distribution of live births, by birth weight**

Birth weight (in grams)	Number	%
Under 1500	8	1.3
1500 — 2499	86	14.1
2500 — 3499	270	44.2
3500 +	72	11.8
Not known	175	28.6
Total	611	100.0

A majority (44.8%) of the deliveries have occurred at General Hospital (Teaching) Jaffna, and an almost equal number (41.6%) of the deliveries have occurred in Municipal Maternity Homes.

The Municipal Maternity Homes are situated in or near the places where the underprivileged sector live. The number of deliveries for 1985 in the maternity homes are given in Table 10. 4.

Table 10.4 **Number of deliveries at Municipal Maternity Homes — 1985**

Name of institution	Number of deliveries
Jubilee Health Centre	343
Pommaiveli Maternity Home	187
Passayoor Maternity Home	68
Nedunkulam Maternity Home	100
Ariyalai Maternity Home (opened on 15-07-85)	15
Total	713

It appears that these maternity homes are well patronized by those living in the underprivileged sector.

Hence it is essential that these maternity homes are upgraded with more facilities like staff, buildings, equipment, furniture etc. Since March 1986 Public Health Midwives are being trained in the administration of BCG. Facilities are needed to implement the programme of BCG immunization in maternity homes.

The present staff for maternity and child care consists of 9 Public Health Midwives (5 of them are attached to maternity homes) and 3 field assistants. This staff is inadequate to provide maternity and child care to a population of about 125,000.

At least 40 Family Health Workers are needed to serve this population.

The Tamil speaking areas experience an acute shortage of public Health Midwives. The output from the Nurses Training School in Jaffna (the only training centre for PHM in the north) is barely sufficient to replace the retirements and resignations. Hence its futile to expect a surplus of PHM, to join the Jaffna Municipality.

Therefore the Jaffna Municipality should train about 40 Family Health Workers. The training programme could last for about 9 months and need not be as intensive as for Public Health Midwives since very few home deliveries occur and when they occur they are mostly conducted by traditional birth attendants. A mother who is sufficiently motivated to be delivered by a trained midwife comes to an institution, except probably in the area where the muslims live in a majority.

The resource personnel needed for such training are available in the Faculty of Medicine, Nurses Training School and the field training area of the District Health Office, Tellipalai.

11. VITAL STATISTICAL DATA

The particulars of vital events that occurred during the one year preceeding the survey is given in Table 11.1 and selected vital rates are given in Table 11.2.

Table 11.1 **Particulars of vital events** (during the previous one year)

Vital events	Number		
	Males	Females	Total
Births	315	296	611
Stillbirths	6	8	14
Abortions	—	—	39
Deaths	71	34	105

Table 11.2 **Vital rates for study area compared to national figures**

Rate	Study area	Sri Lanka *	
Birth rate (per 1000 population)	33.8	28	(1981)
Crude death rate (per 1000 population)	5.8	6.5	(1979)
Infant mortality rate (per 1000 livebirth)	33.6	38	(1979)
Stillbirth rate (per 1000 viable pregnancies)	22.4	20	(1979)
Abortion rate (per 1000 pregnancies)	58.6	—	
Perinatal mortality rate (per 1000 total births)	35.1	—	
Fertility rate (per 1000 females 15—49 years old)	131.1	110.8	(1981)
Marital fertility rate (per 1000 married female 15—49 years)	197.0	191.7	(1981)
Population practicing family planning	3.2%	—	

* Statistical abstract of the Democratic Socialist Republic of Sri Lanka 1982, Department of Census and Statistics, Sri Lanka.

The age / sex specific mortality rates are given in Table 11.3

Table 11.3 Age and sex specific mortality rates

Age group (in years)	Males			Females		
	Population	Deaths	Mortality rate (per 1000 population)	Population	Deaths	Mortality rate (per 1000 population)
Under 1	304	11	36.2	292	9	30.8
1— 4	1150	9	7.8	1146	8	6.9
5– 14	2388	4	1.7	2433	0	—
15 24	1702	9	5.3	1966	4	2.0
25—34	1234	7	5.7	1464	5	3.4
35—44	934	1	1.1	897	0	—
45—54	547	3	5.5	539	2	3.7
55—64	380	6	15.8	284	3	10.6
65—74	174	12	69.0	139	3	21.6
75+	76	9	118.4	50	0	—
Total	8889	71	8.0	9210	34	3.7

The distribution of perinatal deaths by age of mother is given below. One maternal death occurred during the previous one year.

Table 11.4 Perinatal deaths by age of mother

Age of mother (in years)	Stillbirth	Neonatal deaths	Total perinatal deaths
Under 20	0	0	0
20 — 29	6	6	12
30 — 39	5	2	7
40 — 49	1	0	1
Not konwn	2	0	2
Total	14	8	22

12. HANDICAPPED PERSONS

One hundred and eighty eight persons had some form of handicap (Table 12.1). Eighty three (44.1%) of them had paralysis of one or more limbs.

Table 12.1 **Prevalence of handicaps**

Handicap	Number			Prevalence rate (per 1000 population)
	Male	Female	Total	
Blind (one or both eyes)	15	16	31	1.7
Deaf (one or both ears)	8	8	16	0.9
Dumb	19	16	35	1.9
Paralysed (one or more limbs)	54	29	83	4.6
Mentally ill	13	10	23	1.3
Tolal	109	79	188	10.4

The distribution of the handicapped persons by age and sex is given in Table 12. 2. The age specific prevalence is highest in the over 65 years age group.

Table 12. 2 **Handicapped persons by age and sex**

Age group (in years)	Number			Age specific prevalence rate (per 1000 population)
	Male	Female	Total	
Under 5	5	3	8	2.8
5—14	16	19	35	7.3
15—44	53	39	92	11.2
45—64	28	13	41	23.4
65+	7	5	12	27.3
Total	109	79	188	10.4

13. MORBIDITY AMONG CHILDREN

The area taken up for the survey had 2892 children. A 10% stratified randam sample (stratified by age) was selected for medicial examination.

The medical examination was carried out by a Medical Officer of the Jaffna Municipality. The distribution of children examined, by age and sex is given in Table 13. 1.

The response rate was 92.0%.

Some selected symptoms and illnesses detected at the medical examination is given Table 13. 2.

Nutritional deficiencies (32.3%), Acute respiratory infections (22.2%), Skin sepsis and scabies (16.2%) and Diarrhoea (7.2%) form the major problems among the children.

Table 13. 1. **Distribution of children examined, by age and sex**

Age group (in months)	Sex		Total
	Male	Female	
Under 12	23	18	41
12—23	31	20	51
24—35	31	27	58
36—47	34	30	64
48—59	32	20	52
Total	151	115	266

Table 13. 2. **Selected symptoms and illnesses found among children under 5 years** (n = 266)

Symptom or illness	Number	%
* Nutrititional deficiencies	86	32.3
Acute respiratory infections	59	22.2
Skin sepsis / scabies	43	16.2
Diarrhoea	19	7.2
Systolic murmer in heart	5	1.9
Otitis media	4	1.5
Wheezing / Asthmatic bronchitis	4	1.5
Umbilical hernia	2	0.8
Mental retardation	2	0.8
Rectal prolapse	1	0.4
Epilepsy	1	0.4

* Includes
Severe PEM — 3.3%
Vitamin A deficiency — 7.1%

Among the past illnesses suffered by the children, acute respiratory infections (38.3%) diarrhoes (28.9%), passing round worms (15.0%) and skin sepsis with or without seabies (12.4% contributed to the major portion of illnesses (Table 13.3).

Table 13.3 **Children under 5 years giving a past history of some selected symptoms or illnesses** (n=266)

Symptom or illness	Number	%
Acute respiratory infection	102	38.3
Diarrhoea	77	28.9
Passed round worm	40	15.0
Wheezing / Asthma	38	14.3
Ulcers / Scabies	33	12.4
Otitis media	16	6.0
Infective hepatitis	5	1.9
Febrile convulsions	4	1.5
Accidental kerosine-oil poisoning	3	1.1
Drowing	1	0.4

Protein Energy Malnutrition

The extent of Protein Energy Malnutrition (PEM) was measured using the growth chart published by the WHO (WHO, 1978). The findings are given in Table 13.4.

The weight was within the normal range only in 14.3% of the children. After the first year of life the percentage of healthy children dropped from 34.1% to 9.8% indicating poor weaning habits or lack of food or both.

Since 85.7% of the children are below the normal weight and 38.3% are suffering from moderate or severe malnutrition, an intensive nutritional rehabilitation programme is essential.

Table 13.4 **Distribution of children under 5 years (in%) by nutritional status.**

* Nutritional status	Age (in months)					
	12	12—23	24—35	36—47	48—59	Total
Within range	34.1	9.8	13.8	7.8	11.5	14.3
Mildly under weight	48.8	49.0	46.4	45.3	48.1	47.4
Moderately under weight	12.2	37.3	34.5	45.3	38.5	35.0
Severely under weight	4.9	3.9	5.2	1.6	1.9	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
n =	41	51	58	64	52	266

* Midly under weight : Between 3rd percentile and — 3 standard deviations

* Moderately under weight: Between — 3 standard deviation and — 4 standard deviations

* Severely under weight : Less than — 4 standard deviations.

Nutrition Rehabilitation Centres should be established in areas where the prevalence of malnutrition is high. The distribution of children by state of nutrition and birth weight is given in Table 13.5.

Table 13.5 **Distribution of children under 5 years (in%) by state of nutrition and birth weight**

Nutritional status	Birth weight (in grams)		
	2500	2500 and over	Not known
Within range	7.5	17.0	13.8
Mildly underweight	44.4	51.7	40.0
Moderately underweight	44.4	29.3	40.0
Severely underweight	3.7	2.0	6.2
Total	100.0	100.0	100.0
n =	54	147	65

Among the children who had a birth weight of 2500 grams and over, 31.3% were moderately or severely underweight while among the children with a birth weight below 2500 grams 48.1% were moderately or severely under weight.

Acute respiratory tract infections (ARTI)

ARTI was present in 22.2% of the children examined; 38.3% of the children gave a previous history of ARTI. The distribution of children by the number of episodes of ARTI during the previous two weeks is given in Table 13.6.

The incidence of ARTI dropped as age advanced.

Table 13.6 **Distribution of children under 5 years (in %) by episodes of ARTI during the previous 2 weeks**

Number of episodes of ARTI	Age group (in months)					
	Under 12	12—23	24—35	36—47	48—59	Total
None	31.7	27.5	48.3	40.6	63.5	42.9
1	65.9	72.5	51.7	59.4	36.5	56.8
2	2.4	—	—	—	—	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
n =	41	51	58	64	52	266

Diarrhoea

Diarrhoea was present in 7.2% of the children examined, and 28.9% of the children gave a past history of diarrhoea. Table 13.7 gives the distribution of children by episodes of diarrhoea. Almost a quarter (24.8%) of the children examined gave a history of at least one episode of diarrhoea during the preceeding two weeks.

Table 13.7 **Distribution of children under 5 years (in%) by episodes of diarrhoea during the previous 2 weeks.**

Number of episodes	Age group (in months)					
	Under 12	12—23	24—35	36—47	48—59	Total
None	78.0	70.6	72.4	70.3	86.5	75.2
1	22.0	27.5	25.9	29.7	13.5	24.1
2	—	1.9	1.7	—	—	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
n =	41	51	58	64	52	266

Intestinal parasitic infestation

Children who underwent the medical examination were requested to bring a sample of stools and this specimen was examined at the Faculty of Medicine, Jaffna for evidence of intestinal helminthic infestations.

Two hundred specimens were examined giving a response rate of 69.2%.

One hundred children (50%) showed evidence of intestinal parasitic infestations. Among them, 51% had single infestation; 34% double infestation and 15% triple infestation.

The prevalence of intestinal parasitic infestation in the children under 5 years is given in Table 13.8 and their distribution by age group is given in Table 13.9.

Infestation with whipworm, round worm and giardia was found even in infancy, while hookworm infestation was found during and after the third year of life.

Table 13.8 **Prevalence (in%) of intestinal parasitic infestations in children under 5 years.**

Parasitic infestation	Number positive	Prevalence rate (in%)
Pathogenic		
Whipworm ova	54	27.0
Round worm ova	45	22.5
Giardia lamblia cysts	34	17.0
Hook worm ova	20	10.0
Strongyloid stercoralis	01	0.5
Non Pathogenic		
Entamoeba coli cyst	08	4.0
Trichomonas hominis	01	0.5

Table 13.9 **Prevalence (in%) of intestinal parasitic infestation in children under 5 years by age**

Age group (in months)	Prevalence rate (in%)			
	Whipworm	Round worm	Giardia lamblia	Hookworm
Under 12	7.6	8.1	12.8	Nil
12—23	13.5	21.1	13.2	Nil
24—35	28.6	28.5	15.9	7.1
35—47	26.6	20.0	22.2	15.5
48—59	60.5	35.1	18.9	27.0
Total	27.0	22.5	17.0	10.0

Measles and mumps

Among the children examined, 22.6% gave a previous history of measles (Table 13.10) and 1.5% gave a previous history of mumps (Table 13.11).

Table 13.10 **Distribution (in %) of children under 5 years with history of measles**

	Age group (in months)					Total	
	Under 12	12—23	24—35	36—47	48—59	Number	%
Definite	2	11	14	13	20	60	22.6
Doubtful	3	2	1	2	1	9	3.4
No	36	38	42	49	30	195	73.3
Not known	0	0	1	0	1	2	0.7
Total	41	51	58	64	52	266	100.0

Table 13.11 **Distribution (in %) of children under 5 years with history of mumps**

	Age group (in months)					Total	
	Under 12	12—23	24—35	36—47	48—59	Number	%
Definite	0	0	0	0	4	4	1.5
Doubtful	0	0	0	0	0	0	—
No	41	51	57	64	46	259	97.4
Not known	0	0	1	0	2	3	1.1
Total	41	51	58	64	52	266	100.0

14. RECOMMENDATIONS

1. Since there is an acute shortage of trained health staff, to work in the field, 40 family health workers (or Health Wardens) should be trained immediately.

2. At least 17 preschools are needed for the underprivileged sector. The establishment of preschools should also be given priority.

3. A little less than a quarter (22.5%) of the children 5—9 years old do not attend school. It will be necessary to find out the underlying reason and take early remedial action.

4. More than half (56.3%) of the boys between 20—24 years are out of school and unemployed. Avenues for employment must be found for these youths.

5. Immunization coverage is low. Implementation of the recommendation 1 is essential to achieve more coverage.

6. A sewage disposal scheme for the Jaffna Municipality is an urgent need. Construction of water seal latrines is becoming more difficult due to conjestion, and since the ground is mainly limestone, there is a likelihood of faecal pollution of the underground water. To avoid this, a sewage scheme should be installed.

7. A majority of the people of Jaffna are Hindus and they cremate the dead. An incinerator should be installed in one of the cemetries within the Municipality.

8. Out of the deliveries which occur among those living in the underprivileged sector, 41.6% take place at the municipal maternity homes (see tables 10.2 and 10.4). The deliveries in these maternity homes, constitute 22.4% of the expected births for the Jaffna Municipality (calculated on a birth rate of 27/1000 population). Hence the condition in these maternity homes should be improved. Staff, buildings, furniture and equipment in some of the maternity homes are inadequate.

9. Among the children under 5 years, 85.7% are undernourished; 35% moderately and 3.3% severely. These children need food suppliments. Nutrition Rehabiliation Centres should be established in these areas.

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ANNEX 1

CLUSTERS IN THE URBAN UNDER-PRIVILEGED SECTOR OF THE JAFFNA MUNICIPAL COUNCIL

Cluster number	Names of villages included in the cluster
1	Pommaiveli
2	Sooriyaveli
3	Navanthurai
4	Kannapuram
5	Koddady, Maruthondikkadu (Rural)
6	Mosque lane
7	Vayaltharai
8	Gurunagar
9	Thiddy
10	Passaiyoor
11	Thundi
12	Columbuthurai
13	Ariyalai East
14	Ariyalai West
15	Jamuna
16	Thevareerkulam, Rasavinthottam, Rakka-road & Tharakulam
17	Kandarmadam

ANNEX 2

GENERAL DATA

Jaffna Municipality

1. Population — 118,215 (Census 1981)
2. Area — 20.2 Km^2

Urban Underprivileged Sector

1. Population of the urban under-privileged sector	— 18099
2. Number of households	— 2706
3. Average number of persons per household	— 6.7
4. Number of families	— 3577
5. Average number of persons per family	— 5.1
6. Number of children under 5 years	— 2892
7. Number of children medically examined	— 266 (Response rate 92.0%)
8. Number of families practicing family planning	— 583

ANNEX 3

PARTICULARS OF CHILDREN, HOUSEHOLDS AND AVAILABILITY OF LATRINES BY CLUSTERS

* Cluster number	Number of children under 5 years	Number of households	Households with no latrines (%)
1	415	323	85.4
2	102	70	95.7
3	239	201	89.0
4	68	74	20.3
5	282	242	77.7
6	68	69	47.8
7	79	79	83.5
8	263	236	43.6
9	169	168	82.1
10	99	79	63.3
11	128	101	35.6
12	176	184	64.1
13	104	149	58.4
14	219	291	44.7
15	81	89	50.6
16	201	185	42.7
17	199	166	58.4
Total	2892	2706	63.0

* See annex 1 for names.

St. Joseph's Catholic Press,
Jaffna.