THE PROBLEM OF CHRONIC SICK IN SINGAPORE

Rased on Report of a Select Committee*

INTRODUCTION

In June 1966, a committee was appointed to study the problem of chronic sick in the Singapore General Hospital. As its work progressed, it became aware that such a problem must be studied in Singapore as a whole, because Singapore being a small island could not really have isolated regional facilities for any category of sick people, and the hospitals would in fact be closely inter-related in most aspects. Accordingly plan was begun to study the problem as a whole, and the project was completed in February 1968, a period of 20 months. The findings and conclusions are now reported.

The Chronic Sick was defined as those patients who would fall into the following 3 categories, regardless of the diagnosis or age. patients who would fall into the following 3 categories, regardless of the diagnosis or age. Mental illness (excepting mental defect), leprosy, and tuberculosis, were however excluded from this study.

1) Cases requiring institutional care because of social reasons, with a prognosis of short survival e.g. Cancer (up to 1 year or less).
2) Cases requiring institutional care permanently, and who had a relatively long life expectation.
3) Cases requiring institutional care for a protracted period of rehabilitation, but who have an expectation of final independence.

Five surveys were carried out to collect relevant data and these were as follows:

Survey 1: A one month survey of chronic sick patients referred to Almoners for arrangements for their discharge, in order to study the facilities available for the discharge and care of chronic sick patients, and to assess whether these facilities were in fact adequate to provide the care each patient required.

Survey 2: A survey of existing facilities for the accommodation and care of chronic sick patients in Singapore.

Survey 3: A two months survey of chronic sick patients and their social conditions, to assess the priorities of need between the 3 categories of the chronic sick, with special reference to future provisions.

Survey 4: A survey of a sample population so as to obtain some ideas of the size of the problem.

Survey 5: An on-the-spot survey of a representative number of institutions that provide care and accommodation for chronic sick patients to gain first hand knowledge of the actual conditions that obtained in these institutions.

The following were the findings:

Survey 1 (see appendix I). It was found that:

41.81% of the patient were discharged to adequate accommodation and home care.

6.35% of the patients were discharged to adequate institutional care.

5.35% of the patients died.

22.74% of the patients were discharged to inadequate home care.

3.68 of the patients were discharged to institutions that provide inadequate care.

20.07% of the patients remained in the wards.

100.00%

This implied that some additional provision had to be made for Home and Institutional care for nearly 50% of chronic sick patients.

Survey 2 (see appendix II)

It was found that Institutions providing care for the chronic sick and for the aged had an almost 100% occupancy rate and also a long waiting list.

The largest number of the waiting list was 262 children for the Mentally Defective Ward —Yio Chu Kang.

The second largest number was on the waiting list for admission to the Chronic Sick Wards,

*Members of the Committee were:—Chairman: Dr. Gwee Ah Leng; Members: Dr. Tan Kwang Hoh, Dr. E. Hanam, Mr. W. Fung, Dr. W. K. Ng, Mr. N. Balachandran, Miss Vaithilingam, Mrs. Y. F. Chen, Mrs. J. Horsley.

which had a waiting list of 260 patients. This number was made up of the following:

38 patients in Homes and Temples.
60 patients were in the wards.
16 patients died in the ward during the survey.

68 patients were in inadequate home conditions.

78 patients were in adequate homes, but their medical condition was expected to deteriorate, and consequently would require more medical and nursing care than their families could provide.

244

There were thus 98 patients (38+60) on the urgent waiting list for admission to the Chronic Sick Wards.

The Home for the Aged with the largest number on the waiting list was the Little Sisters of the Poor which had a waiting list of 100 males and 100 females.

Total number of beds available were therefore as follows:

			Total
Chronic Sick	**315 males**	**208 females**	523
Aged	**708 males**	**538 females**	1246
			1769

Survey 3 (see appendix III)

A record was made of all chronic sick patients in the wards in all the hospitals i.e. Outram Road General Hospital, Thomson Road General Hospital, the Medical Wards in Tan Tock Seng Hospital, Middle Road Hospital, and Cynaecological Wards in Kandang Kerbau Hospital for a period of two months and these were classified under the International List of Disease and Causes of Death.

A total of 992 cases were identified and the largest numbers fell within the following Classifications:

The 992 chronic sick patients were further analysed by categories of the chronic sick (as defined by the Committee) age group, sex, and the International Classification of Diseases and Causes of Death. (See appendix IV & V).

In the case of both males and females. Classification II (Neoplasms) made up the largest group with 55 out of the 78 males, and 28 out of the 48 females.

Of this groups of 447 males and 298 females, the largest numbers came under the following classification according to the International Classification of Disease and Cause of Death:

With this group of 87 men and 34 women, the largest number came within the following Classification:

VI	Diseases of the Nervous System and sense organs.	261	26.5%
V	Mental Psycho-Neurotic and Personality Disorders.	166	17%
VII	Diseases of Circulatory System.	120	12%
II	Neoplasms.	100	10%
XVI	Symptoms, Senility and ill-defined conditions.	68	6.8%

CHRONIC SICK

Category (1) (those with a prognosis of 1 year or less).

Age Group	Male	Female	Total
0 - 9	8	7	15
10 - 44	10	7	17
45 and above	60	34	94
	78	48	126

CHRONIC SICK

Category (2) (those patients requiring Institutional care permanently and having a long life expectancy) (See appendix VI & VII).

Age Group	Male	Female	Total
0 - 9	86	95	181
10 - 44	77	48	125
45 and above	284	155	439
	447	298	745

Classification	Males	Females
VI Diseases of the Nervous Systems and Sense Organs	127	77
V Mental Psycho-Neurotic Personality Disorders	73	89
VIII Diseases of Circulatory System	61	35
XIV Congenital Malformations	25 (all below 14 years of age)	23 (all below 14 years of age)

CHRONIC SICK

Category (3) (patients requiring institutional care for a protracted period of rehabilitation, who have an expectation of final independence) See appendix VIII & IX.

Age Group	Male	Female	Total
0 - 9	3	3	6
10 - 44	26	6	32
45 and above	58	25	83
Total	87	34	121

Classification	Male	Female
VI Diseases of Nervous System and Sense Organs	34	15
XVII Accidents	14	8
VII Diseases of Circulatory System	10	6
I Infective and Parasitic Diseases	9	0

Classification I Infective and Parasitic Diseases	22	24%
Classification V Mental, Psycho-Neurotic and Personality Disorders	19	21.1%
Classification XVI Symptoms, Senility and Ill-defined Conditions	14	15.6%
Classification VI Diseases of Nervous System and Sense Organs	13	14.4%
Classification IV Diseases of Blood and Blood-forming Organs	11	12.2%

I. **0 - 16 years.**

a.	Total Physical handicap	6
b.	Needing special schooling	6
c.	Recovered from illness (those of relevant age attending normal school)	7
d.	Recurring illness preventing attendance at school	1
e.	Recurring illness not preventing attendance at school	2
	Total	22

II. **17 - 59 years.**

a.	Total handicap and total loss of earning	3
b.	Partial handicap and total loss of earning	8
c.	No handicap, total loss of earning	2
d.	Partial handicap, partial loss of earning	5
e.	Partial handicap no loss of earning	1
f.	No handicap partial loss of earning	4
g.	Socially and economically competent	23
	Total	46

III. **60 years and above.**

a.	Total handicap	5
b.	Partial handicap	7
c.	Socially and economically competent	7
	Total	19

IV.	Died - - -	3
	Total handicap (Ia + IIa + IIIa) - -	14
	Partial handicap (Ib + Id + IId + IIIb) - -	27

Survey No. 4 (undertaken by the Department of Social Medicine)

A community with a total population of 10,116 in a rural area of Singapore in Yio Chu Kang, was identified. Each household was visited and the head of the household was asked whether any member had been ill for one year or more. The population classified by age and sex (Appendix X) shows that this community does not differ substantially from the population structure of Singapore as a whole, which has a higher percentage of children and with comparatively less people in the older age group. The sex ratio is approximately similar. Classifying the answers to the questionaire, a total of 90 cases was identified, giving a rate of 9 per 1,000 population. These 90 cases (See Appendix XI) fell into the following Classification.

Age specific rate per thousand population was worked out (Appendix X) on the chronic sick patients identified. It is interesting to note that the prevalence of chronic sickness increases sharply from 40 years upwards for both males and females. While the rate per thousand for males for all age group was 11·75 per thousand, the rate for females worked out at 5·9 per thousand, or nearly half the prevalence for males for all age groups.

There were 5,190 males, and 4,926 females in the area. An attempt has also been made to assess the chronic sick economic load in the community by sex in different age groups. Appendix XII shows that the loss of men-year was estimated at 360 as compared to the loss of women-years which was estimated at 176.

Students of the Department of Social Work and Social Administration University of Singapore carried out a further survey of the 90 cases identified as being ill for one year or more, and found the following facts.

Survey 5

The Committee visited the following 'Homes' and Institutions.

(a) WOODLAND TEMPLE where 98 patients were accommodated in 2 dormitories, erected of plank with attap and zinc roofs, one for males and one for females. Of the number in the temple, 36 were ambulant, 23 semi-ambulant, 34 non-ambulant. The ambulant patients attend at the Unit Clinics in various hospitals or at Jalan Teck Whye Clinic for maintenance drugs or for medical follow up. The District Nurse visits at least once a week to attend to patients referred to her by the Medical Officer in-charge of the patient. One domestic assistant was assigned to each dormitory. There was no running water or electricity. Well water had to be carried and was used for cooking and drinking. Earth closets were used and were in a clean and well kept condition. The diet seemed to contain a great deal of salted food. The patients seemed to be satisfied with their surroundings, and those who were ambulant helped in the kitchen or with other patients. They also seemed to participate in the activities of the temple and in the village around. Their only complaints were about the poor quality of food and lack of adequate medical and nursing care for the non-ambulant patients.

(b) 319H, ALJUNIED ROAD HOME

This Home had brick walls, with zinc and attap roof. There were large and airy rooms and three patients were assigned to a room. There was a total of 24 patients of whom 6 were non-ambulant, 9 semi-ambulant and 9 totally ambulant. There was running water, but a bucket system lavatory. There was a possible fire hazard as there was only one exist and the other attap houses very close by. There was a very homely atmosphere, and the patients seemed to participate in the life around this Home. Many of the ambulant patients seemed more suitable for an Old People's Home. There is no temple attached to this Home. There was one domestic assistant.

(c) 218F, ALJUNIED ROAD HOME

This Home was attached to a temple. There were 2 dormitories which were large and airy. There were 22 residents of which none were non-ambulant, 10 ambulant with aid, and 12 ambulant. Patients seemed to participate in the life around but appeared to be isolated from the temple. There was one domestic assistant.

(d) 18, LORONG 22, GEYLANG (FEMALES ONLY)

There were 14 residents. 8 were ambulant with aid, 6 were ambulant. There were a number of rooms around the Temple. They were very cramped and members felt that although the patient did take some part in the life of the Temple, the atmosphere was not a homely one. There did not seem to be sufficient ventilation and patients did not seem to get much attention.

APPENDIX I

SURVEY OF DISCHARGES DEALT WITH BY ALMONERS

Name of Institutions	Total	Died	Still in Wards	Discharges			
				Home		Institutions	
				Adequate	Inadequate	Adequate	Inadequate
Thomson Road (Surgical)	21	4	8	4	2	3	0
Thomson Road (Medical)	27	8	4	5	4	5	1
Kandang Kerbau Maternity Hospital	10	0	0	8	1	1	0
Tan Tock Seng Hospital (Unit I)	8	0	1	5	2	0	0
Tan Tock Seng Hospital (Unit II)	4	0	3	0	1	0	0
Tan Tock Seng Hospital (Unit III)	4	0	1	1	1	0	1
Tan Tock Seng Hospital (Unit IV)	5	0	1	0	1	1	2
Paediatric Unit 'West'	72	0	10	62 (includes 7 fostered out adequately)	0	0	0
Paediatric Unit 'East'	49	0	9	16	24	0	0
Medical Unit I	20	1	9	0	8	1	1
Medical Unit II	29	2	4	4	9 + 4	2 + 1	3
Medical Unit III	2	0	0	1	0	1	0
ENT & DXR	13	1	3	5	3	1	0
Orthopaedic Unit	28	0	6	12	7	2	1
Surgical Units 'A' & 'B'	7	0	1	2	1	1	2
	299	16 (5.35%)	60 (20.07%)	125 (41.81%)	6 68 (22.74%)	19 (6.35%)	11 (3.68%)

(One Month's Survey)

APPENDIX II

OCCUPANCY OF HOMES FOR CHRONICALLY SICK AND DISABLED — SEPTEMBER 1966

	Bed Capacity			Present No. in Residence			Occupancy Rate
	M	F	Total	M	F	Total	
Chronic Sick Hospital (Alamanda Ward)	48	17	65	48	18	66	100%
Chronic Sick Hospital (Bougaenvilla Ward)	16	19	35	16	19	35	
M.D. Wards	10	34	44	10	34	44	100%
Chronic Ward (Tan Tock Seng)	36	0	36	36	0	36	100%
Mandalay Road Hospital Annexe	0	8	8	0	8	8	100%
Woodlands Temple	54	44	98	49	44	93	94.9%
Aljunied Road Home	15	9	24	15	9	24	100%
218-F, Aljunied Road	17	5	22	17	5	22	100%
Lorong 22 Geylang Temple	0	14	14	0	14	14	100%
Total	196	150	346	191	151	342	98.8%

HOMES FOR THE AGED — SEPTEMBER 1966

Name of Institution	Bed Capacity			Present No. in Residence			Occupancy Rate
	M	F	Total	M	F	Total	
Woodlands Road 14½ m.s.	380	120	500	255	52	307	80.8%
St. John's Home for the Aged	20	40	60	20	40	60	100%
Little Sisters of the Poor	168	168	336	168	168	336	100%
Kwong Wai Siu Hospital	140	210	350	89	128	217	62%
Total	708	538	1246	532	388	920	73.8%

OTHER INSTITUTIONS — SEPTEMBER 1966

Name of Institution	Bed Capacity			Present No. in Residence			Occupancy Rate
	M	F	Total	M	F	Total	
St. Andrew's Orthopaedic Hospital	60	60	120	41	33	74	61.7%
Keng Chin Loke Tin Kee	32	10	42	32	10	42	100%
Fee Choon Free Hospital	32	8	40	29	7	36	90%
Singapore Cheshire Home	35	20	55	35	19	54	98.2%
Red Cross Crippled Children's Home	20	20	40	25	11	36	90%
Total	119	58	177	121	47	168	94.9%

APPENDIX III

BROAD GROUPS OF CAUSES OF DEATH ACCORDING TO 6th REVISION (1948) INTERNATIONAL LIST OF DISEASES AND CAUSES OF DEATH

			%
I.	Infective and Parasitic Diseases - - -	64	6.45
II.	Neoplasms - - - -	100	10.08
III.	Allergic, Endocrine System, Metabolic and Nutritional Diseases - - - -	1	0.10
IV.	Diseases of Blood and Blood-forming Organs -	57	5.75
V.	Mental, Psycho-Neurotic and Personality Disorders -	166	16.73
VI.	Diseases of Nervous System and Sense organs -	261	26.31
VII.	Diseases of Circulatory System - - -	120	12.10
VIII.	Diseases of Respiratory System - - -	35	3.53
IX.	Diseases of Digestive System - - -	17	1.71
X.	Diseases of Genito-Urinary System - -	7	0.71
XI.	Deliveries and Complications of Childbirth Pregnancy, etc. - - - -	0	—
XII.	Diseases of Skin and Cellular Tissues - -	5	0.50
XIII.	Diseases of Bones and Organs of Movement -	24	2.42
XIV.	Congenital Malformations - - -	48	4.84
XV.	Certain Diseases of Early Infancy - - -	2	0.20
XVI.	Symptoms, Senility and Ill-Defined Conditions -	5	0.50
XVII.	Accidents, etc. - - - -	68	6.86
	Unknown - - - -	12	1.21
		992	100.00

APPENDIX IV CATEGORY I — MALE. Age Groups

	Under I	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 +	Unknown	Total
I																	1		1
II	1	1				2		4	4		5	4	15	8	6	4	2		55
III																			0
IV		1	1								1		1				1	1	6
V														1		2			1
VI			1									1				1			4
VII	1		1												1	1			4
VIII																			2
IX			1								2		1						3
X																			1
XI																			0
XII																			0
XIII			1																1
XIV																			0
XV																			0
XVI																			0
XVII																			0
Unknown																			0
Total	1	2	5	0	0	2	0	4	4	0	8	5	17	9	7	8	5	1	78

APPENDIX V CATEGORY I — FEMALE. Age Groups

	Under I	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 +	Unknown	Total
I															1				1
II							1	1	2	3	1	5	4	3	2	4	2		28
III																			0
IV			2									1	2						5
V			2																2
VI													1			1	2		4
VII		1													1		2		4
VIII																	1		1
IX		1																	1
X																			0
XI																			0
XII																			0
XIII																			0
XIV																			0
XV																	1		1
XVI																			0
XVII																			1
Unknown	1																		
Total	1	2	4	0	0	0	1	1	2	3	1	6	7	3	4	5	8	0	48

APPENDIX VI CATEGORY II — MALE. Age Groups

Disease Group	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 +	Unknown	Total
I			2				1			3	2	8	8	5	5	4	2		40
II		1						1					1	1	2		1		7
III																			0
IV		2									2	2	3	1	4	3	6	1	24
V		21	26	18	2	2									1	1	2		73
VI			6	4	3	8	2	2	3	5	7	10	16	25	20	9	7		127
VII	1	1	2					2	2		2	4	11	16	10	10	5		61
VIII												3	1	5	7	3	3		22
IX								1	1	2				2			1		7
X																1	2		3
XI																			0
XII													1	1					2
XIII		1	2	2	2		1		1	3			1	3	2		1		19
XIV	1	9	11	3								1							25
XV																			0
XVI														2	1		1		4
XVII							1				3	1	2	2	6		11		26
Unknown									1	1		2	1		1	1			7
Total	2	35	49	27	7	10	5	6	8	14	17	31	45	63	59	26	42	1	447

APPENDIX VII CATEGORY II — FEMALE. Age Groups

Disease Group	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 +	Unknown	Total
I	2	2	1				1				2	1		1			3		13
II		1		1	1							1	1		1		1		7
III				1															1
IV									1	1		1	3	2	4	3	3		18
V	4	13	48	13	4		1		1			1	1			2	1		89
VI		1	3	2	2		2	1	2	2	2	4	12	11	14	8	11		77
VII		1			1		1	1		1	2	4	1	3	7	7	6		35
VIII														1	2		1		4
IX																2			2
X																			0
XI																			0
XII				1											1				2
XIII												1				1			2
XIV	1	7	9	6															23
XV		1	1																2
XVI										1	1		1		4	7	6		0
XVII													1		1		1		20
Unknown																			3
Total	7	26	62	24	8	0	5	2	4	5	7	13	20	18	34	30	33	0	298

APPENDIX VIII

CATEGORY III — MALE. Age Groups

Disease Group	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 +	Unknown	Total
I									1		1		1	4	1	1			9
II								1											1
III												1		1	1				3
IV																			0
V				1	2	2	4	3	1	3	1	5	6	4	1			1	34
VI			3									2	1		1	2		1	10
VII								1				2	1		2				6
VIII														2		1	1		4
IX							1										2		3
X				1															1
XI														1					1
XII																			0
XIII																			0
XIV																			0
XV					1				3		1	1	1	1	2	3	1		14
XVII							1												1
Unknown																			
Total	0	0	3	2	3	2	7	4	5	3	3	11	10	13	8	7	4	2	87

APPENDIX IX

CATEGORY III — FEMALE. Age Groups

Disease Group	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 +	Unknown	Total
I																			0
II														1		1			2
III																			0
IV														1					1
V								1											1
VI					1	1	1		1		1		1	3	3	1	1		15
VII		2	1							1		1			1				6
VIII																			0
IX																			0
X																			0
XI																			0
XII																			0
XIII															1				1
XIV																			0
XV																			0
XVI												1		1	2	2	2		8
XVII																			0
Unknown																			
Total	0	2	1	0	1	1	1	1	1	1	1	2	1	6	7	4	3	0	34

APPENDIX X

CHRONIC SICK SURVEY
AGE SPECIFIC PER THOUSAND POPULATION
Y.C.K. 1967

Age Grouping	MALES			FEMALES		
	Population	Chronic Sick	Rate/1,000	Population	Chronic Sick	Rate/1,000
Under 1	161	—	—	165	—	—
1 - 4	819	2	2.44	713	2	2.81
5 - 9	924	6	6.49	846	3	3.55
10 - 14	773	3	3.88	731	4	5.47
15 - 19	581	2	3.44	544	—	—
20 - 24	424	—	—	431	1	2.32
25 - 29	343	2	5.83	295	—	—
30 - 34	275	1	3.64	240	1	4.17
35 - 39	219	3	13.70	231	3	12.99
40 - 44	168	8	47.62	186	—	—
45 - 49	122	6	49.18	113	4	35.4
50 - 54	129	10	77.52	116	—	—
55 - 59	76	6	78.95	84	2	23.81
60 - 64	72	7	97.22	75	4	53.33
65 - 69	44	3	68.18	61	3	49.18
70 - 74	24	—	—	29	1	34.48
75 +	16	2	125.0	39	1	25.64
Unknown	20	—	—	27	—	—
Total:	5,190	61	11.75	4,926	29	5.89

APPENDIX XI

CHRONIC SICK LOAD ACCORDING TO INTERNATIONAL CLASSIFICATION OF DISEASES (MALES AND FEMALES) CHINESE Y.C.K. 1967.

Classification	Chronic Sick	%
I	22	24.4
II	—	—
III	—	—
IV	11	12.2
V	19	21.1
VI	13	14.4
VII	3	3.3
VIII	1	1.1
IX	1	1.1
X	2	2.2
XI	—	—
XII	—	—
XIII	1	1.1
XIV	—	—
XV	—	—
XVI	14	15.6
XVII	1	1.1
Unk.	2	2.2
	90	100%

APPENDIX XII

CHRONIC SICK SURVEY LEAD BY AGE & SEX
Y.C.K. 1967

Age Grouping	Male Men Years of Chronic Sick		Female Women Years of Chronic Sick	
	Chronic Sick	Years	Chronic Sick	Years
Under 1	—	—	—	—
1 - 4	2	3	2	1+
5 - 9	6	34	3	14
10 - 14	3	29	4	32
15 - 19	2	7+	—	—
20 - 24	—	—	1	—
25 - 29	2	20	—	—
30 - 34	1	33	1	2
35 - 39	3	21	3	45+
40 - 44	8	57+	—	—
45 - 49	6	33	4	28 + 8 days
50 - 54	10	33	—	—
55 - 59	6	42+	2	7
60 - 64	7	29 + 2 wks.	4	18
65 - 69	3	16	3	29
70 - 74	—	—	1	3 mths.
75+	2	3	1	—
Unknown	—	—	—	—
Total	61	360	29	176¼

Current attending O.P.D. = 3
Adm. to hospital sometime or other = 26
At present in hospital = 3

Patients in these four Homes received $21/- Public Assistance and $10/- Disability Allowance if they qualified for them. The Almoners subsidised the rest of the cost of the patients' stay. Domestic Assistants were also paid from funds held by the Senior Almoner or the Almoner Chronic Sick Hospital.

These Homes would seem to represent different forms of arrangements for accommodation of chronic sick patients:

1) dormitories type.
2) chalet i.e. rooms and isolated units.
3) a combination of both.

(e) CHESHIRE HOME

The Matron was a qualified nursing Sister. There was an assistant nurse, a number of orderlies, 2 voluntary doctors who did a regular round and who were on call in an emergency. The accommodation was on a small dormitory basis with individual rooms for special cases, or for the very ill, and seemed very satisfactory. A dining room, a recreation room and a physiotherapy room added to the already more then adequate space. It was noted that no Government grant was made to Cheshire Home. However patients in receipt of Public Assistance and Disability Allowance from Social Welfare Department had this paid to them at Cheshire Home and patients made a contribution for their keep, leaving them with $5/- per month for pocket money. Many voluntary workers also helped in the running of the home and in providing care and entertainment for the patients.

CONCLUSION

The care of chronic sick patients is a sizeable problem in Singapore, although no definite information is available regarding the size of the chronic sick population. Figures based on the Yio Chu Kang Survey initiated by this Committee, and conducted by the Department of Social

Medicine and Public Health of University of Singapore, indicate that the incidence of chronic sickness could be as high as 90 in 10,116 roughly 0·9%. This would mean in a population of 1·9 million, there would be an expected chronic sick population of 17,100 of which two thirds would be male. However, it is probable that only those who are totally handicapped, and a small proportion of those partially handicapped, would need institutional care. Using figures based on this survey again, the first category would be 14 in 10,116 i.e. 0·014% i.e. 2,660 cases in Singapore, of which 6/14 i.e. 43% or 1,142 would be under 16 years of age. The existing facilities of 1,769 beds would appear to be not grossly inadequate in number, but still indicate specific areas where marked inadequacy exists, especially in providing for mentally retarded children, where there are only 40 beds in the mental defective wards. The total number of chronic sick beds available at present is 318 for males, 208 for females. Although some of the institutions which provide care for the aged will accept a few chronic sick non-ambulant patients, the figures of beds available in such institutions have not been included in the number of beds available for the chronic sick. However, it must be anticipated that the demand may increase if the public is made to feel that they can be relieved of the care of chronic sick at home; and unless certain restrictions like financial or other social-economic barriers be adopted, this bed strength could prove to be totally inadequate.

The survey of Homes and Institutions shows a total of 1,769 beds which represents 66·5% of the estimated 2,660 chronic sick patients requiring institutional care, and this would suggest that at present, a good proportion of the categories, which would normally need institutional care are being cared for at home. It must be borne in mind that of this 1,769 beds, 1,246 beds are for the aged.

Of the 992 cases surveyed by the almoners (appendix III) it is to be noted that debility arising as a result of diseases of the nervous system amounts to 26·5% and psychiatric diseases to 17%, whereas chronic heart diseases and neoplasms (cancers) account for only 12% and 10% respectively. This is an expected pattern as chronic invalidity results generally from neurological or psychiatric illness of an acquired or congenital nature, and as the population improves in general health and the population increase falls, this deviation would become even more noticeable.

Present defects in the facilities in Singapore for the Chronic Sick would appear to be as follows:-

(1) There is no fixed policy regarding the problem of the care of the chronic sick. There is no central planning or co-ordination, although the Almoner in charge of the chronic sick hospitals is the liaison with various voluntary organisations providing care for the chronic sick outside of Government facilities.

(2) The size of the problem is not accurately known. Survey No. 4 (Appendix X) gives only a rough estimate of the problem in the community.

(3) Present non-Government facilities are run on racial or religious basis, or for monetary gain.

(4) Financial provisions are inadequate. Patients receive their Public Assistance and Disability Allowance. This together with the grant of $13,000/- made available to the Almoner, Chronic Sick Hospital, to make provision for all the 153 patients in the Homes and Temples, is inadequate to provide more domestic assistance, or suitable or appropriate diets for the patients.

(5) Some of the institutions specify that certain categories of patients are excluded from consideration for admission, regardless of the special needs of such categories of patients.

(6) Patients who have not been seen by hospitals have difficulty in being admitted for assessment of their condition to be placed on Chronic Sick Hospital Waiting List or to be referred to Homes/Temples. These are usually the semi-paralysed cases who may not require further treatment as such, but they are often in a very poor condition i.e. with bed-sores etc. Relatives may approach Medical Officers at Outpatient Dispensaries or Almoners for their admission to some Home. Some of these patients are unable to get to the Outpatient Dispensaries, and Medical Officers from Outpatient Dispensaries do not see patients in their homes. When referred to Hospitals for advice by Outpatient Dispensaries, patients may be sent home and not admitted, even when they are brought in by ambulance. There should be some system where by such patients can be visited, and admitted if necessary, and

subsequently referred to the Chronic Sick Hospital or Homes to be arranged by the Almoners.

(7) Re-admission to the hospital from these "Homes" and "Temples" is still very difficult. Many medical officers, are unaware of the fact that these "Homes" do not provide medical or nursing care, and do not know the actual physical condition of the Home. They realise that the admission of such apatient to the Ward will mean a problem of discharge from the ward at a latter stage. Because of the refusal of admission, many patients have had to die in the "Homes" and Institutions. This means that death would be inaccurately certified by incompetent authority. There is no mortuary in any of the "Homes" and "Temples" and this means that the other patients are greatly distressed by the presence of a dead body in the same room for a day or more and valuable pathological data is also lost. There is the problem of arranging for and paying for the funeral. This upsets the people who run the "Homes", and they are likely to refuse admission to the "Homes", if very ill patients are sent back to them.

(8) Present facilities are inadequate to cope with children under the age of ten in the category 2 and 3, i.e. long term institutional care.

The Committee was of the view that for Singapore at least, the following would be desirable objectives when considering the problem of the chronic sick:

(1) that chronic sick patients should not block beds in wards for acute cases.

(2) that provisions for accommodating chronic sick patients should be realistic and related to local conditions and the current standard of living.

(3) that facilities should be such that chronic sick patients can be cared for adequately, and that such patients should not feel abandoned or incarcerated.

(4) that private participation should be accepted and encouraged in the provision of care and accommodation of the chronic sick.

The Committee would also advocate that a desirable system of care for the chronic sick locally must have the following characteristics: It should:

(1) have some form of co-ordination of the various facilities for chronic sick patients.

(2) have co-ordination of medical treatment and care.

(3) provide rehabilitative measures.

(4) take into account, through social reports and assessment of the family of the patient, the ability to care for the patient at home.

(5) have adequate financial support to provide adequate medical, nursing, and domestic care.

Accordingly the Committee came to the conclusion that the following provisions should be made:

1) *Co-ordinating Body*

That some Central Co-ordinating Statutory Board be formed. The Board should include representatives of all organisations which provide care and accommodation for chronic sick patients. The Board should be an Advisory Committee with some responsibility for over-all planning. The Board should preferably not have any direct jurisdiction over individual admissions but should be able to lay down minimum standards of care and accommodation for various institutions.

2) *Medical Co-ordination*

a) That there should be more medical co-ordination. The general principle should be that the medical care of chronic sick patients in all Homes and Institutions should come under the purview of Government. General Practitioners should be encouraged to give service, voluntarily or paid, for patients in Homes or Institutions.
b) that some arrangements should be made to provide transport for patients who have to attend for Out-Patient treatment in Units in hospitals.

c) that some Home Care medical service be provide for immobile patients in institutions where such medical care is not available.
d) that some emergency call system should be instituted to attend to urgent cases in a Home or Institution.

3. *Rehabilitation Measures*

a) That the Department of Physical Medicine should take into account the needs of the Chronic Sick Homes so as to co-ordinate treatment in the homes and temples.

b) that Diversional Therapy—Occupational Therapy, be so arranged that emphasis should be placed on retraining or training for re-employment, with the ol ject ofr eturning the patients to the Community as contributing members.

c) Admission to the Chronic Sick Homes should be regulated by a fixed policy based on medical needs and social circumstances of the family.

4) *Financial*

The present system of subsidising the public assistance allowance of patients in homes and temples by the Almoners from a special fund is inadequate to provide the required number of trained and untrained personnel. More funds should be made available for this purpose.

5) *Homes and Institutions*

The Committee recommend the building of two types of Institutions for the care of the chronic sick.

a) for short-term cases needing medical and nursing care in a non-acute *hospital* where emphasis on the relief of pain and suffering should be the first priority.

b) i. for those patients in Category 2 where the emphasis will be on making Occupational Therapy, or outdoor life, available to those who have to remain in the Institution for the rest of their lives, and

ii. for those in Category 3 where the emphasis will be on rehabilitation and final independence.

The Department of Physical Medicine should be responsible for a rehabilitation programme for those in categories 2 and 3. Those in category 2 will need nursing care and a large number of attendants and amahs to deal with problems of toilet and physical well-being. Part of this staff may be drawn from the chronic sick patients themselves. In this aspect, for categories 2 and 3, separate facilities for children under 10 are desirable, in view of the different problems presented, such as feeding, nursing, and rehabilitation programme.

ACKNOWLEDGEMENTS

(1) The Committee wish to thank all the Almoners in all the hospitals for their co-operation in carrying out the two Surveys, for which they had to collect the required material and present them in the forms required by the Committee.

(2) The Management Committee of the various Homes and Institutions which gave their full co-operation in the Survey of the Homes and Institutions.

(3) The Department of Social Medicine and Public Health which helped to carry out the population Survey and for preparing the appendices.

(4) The Department of Social Work and Social Administration for carrying out the Survey of the social significance of sickness in the Community.