

S T D

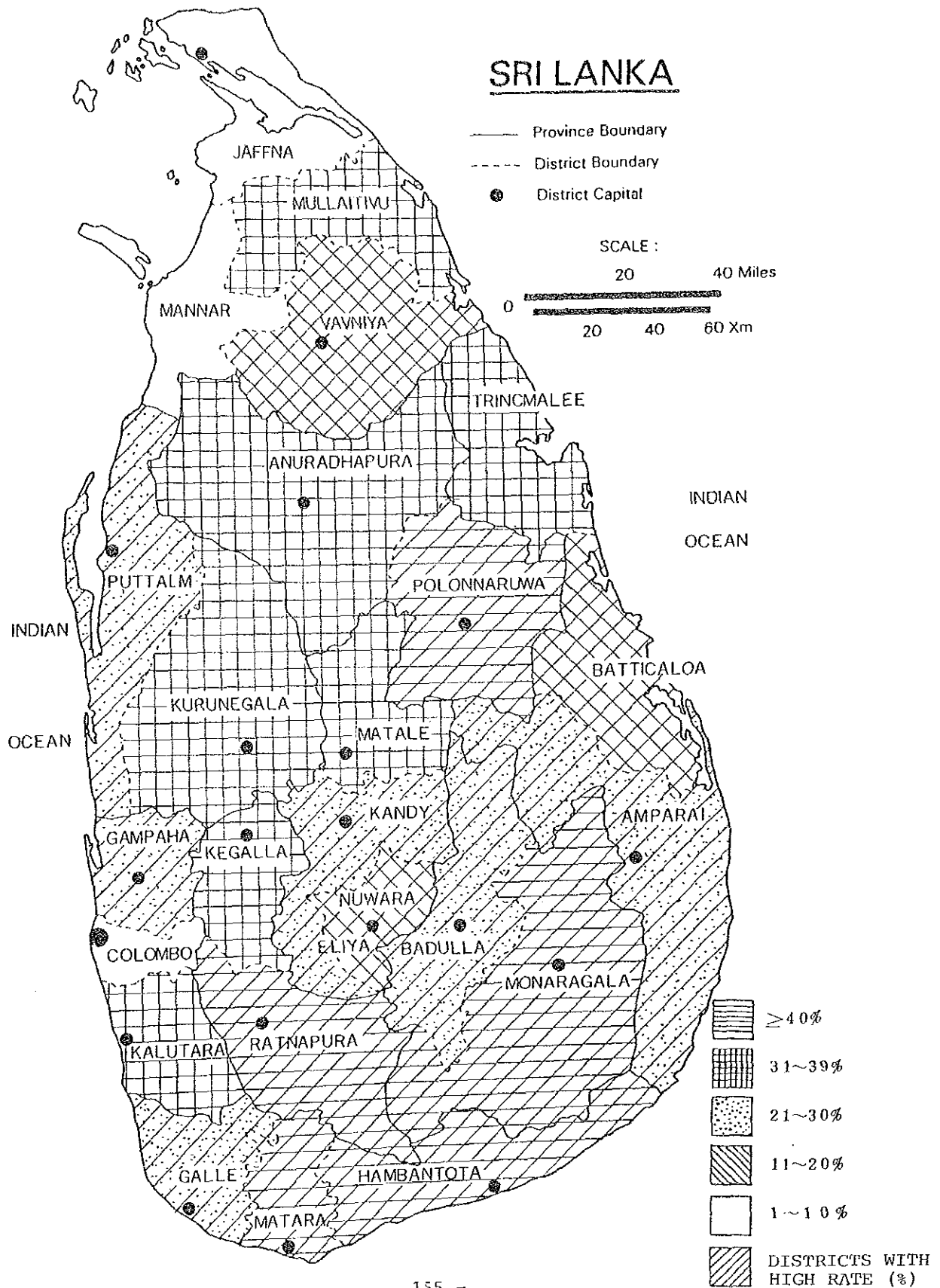
Appendix 54 AGE DISTRIBUTION OF STD (1982 ~ 1983)

Disease	Age Distribution										
	0~2	3~9	10~14	15~19	20~24	25~29	30~34	35~39	40~49	50~59	>60
Syphilis	0	0	2	31	80	88	54	26	23	4	1
%	0	0	0.6	10.0	25.8	28.4	17.4	8.4	7.4	1.2	0.3
Early Syphilis	0	0	0	11	62	55	34	19	8	0	0
%	0	0	0	5.8	32.8	29.1	17.9	10.0	4.2	0	0
Late Syphilis	0	0	0	4	32	56	51	27	22	6	6
%		0	0	2.0	16.1	28.2	25.7	13.6	11.1	3.0	3.0
Congenital Syphilis	3	0	0	1	2	3	1	0	1	0	1
%	25.0	0	0	8.3	16.6	25.0	8.3		8.3		8.3
Gonorrhoea	1	1	1	110	544	456	246	108	95	18	1
%	0.06	0.06	0.06	6.9	34.4	28.8	15.5	6.8	6.0	1.1	0.06
Non-eon. urethritis	1	1	1	16	109	114	75	32	24	5	2
%	0.26	0.26	0.26	4.2	28.6	30.0	19.7	8.4	6.3	1.3	0.52
Soft Schancre	0	1	0	21	124	83	49	18	14	6	1
%	0	0.31	0	6.6	39.1	26.1	15.4	5.6	4.4	1.9	0.31
Inguinal Herpes	0	0	0	16	102	103	65	23	21	0.90	0
%	0	0	0	4.8	30.6	30.9	19.5	6.9	6.3		0

Ration of female to male = 0.19

WATER AND SANITATION

Appendix 55 RATE (%) OF UTILIZATION OF UNPROTECTED WELL AND RIVER WATER, 1981

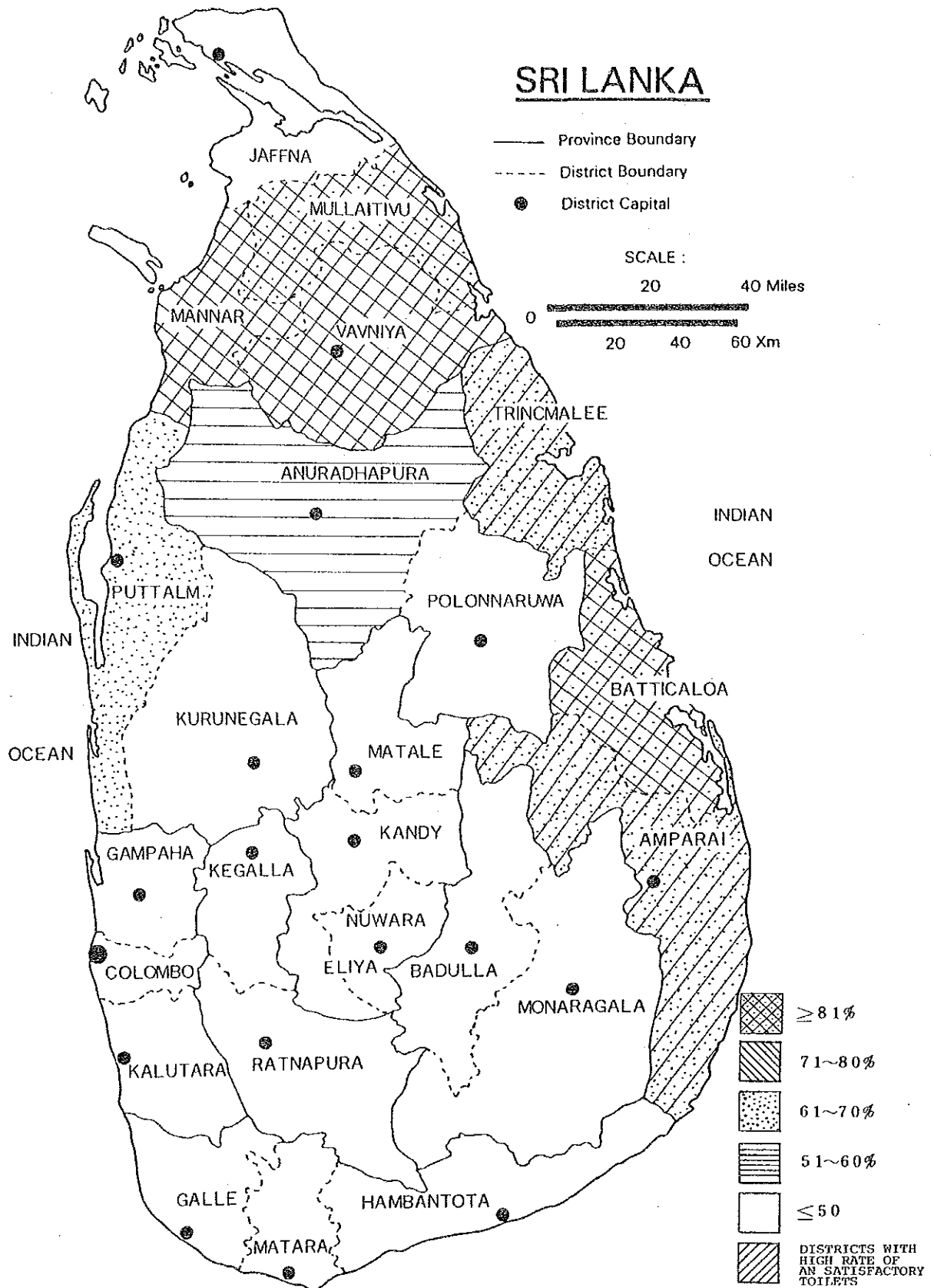


Appendix 56 MAIN SOURCE OF DRINKING WATER AVAILABLE TO OCCUPIED HOUSING UNITS - 1981

District	Main Source of Drinking Water (%)				3 + 4
	1 Piped Water	2 Protected	3 Unprotected	4 River Tank Other Source	
Sri Lanka	17.3	52.3	20.8	7.0	27.8
Colombo	50.5	38.5	7.6	0.6	8.2
Gampaha	8.7	65.6	22.0	0.5	22.5
Kalutara	4.9	59.7	28.5	3.7	32.2
Kandy	28.9	43.1	19.7	6.0	25.6
Matele	13.8	46.4	24.6	13.0	37.6
Nuwara Eliye	65.1	10.9	6.5	9.2	15.7
Galle	5.7	61.7	27.6	3.0	30.6
Matara	10.0	47.5	36.1	4.8	40.9
Hambantota	11.1	41.2	30.4	16.2	46.6
Jaffna	10.7	77.1	8.0	1.8	9.8
Mannar	21.5	70.1	5.7	2.2	7.9
Vavuniya	3.5	74.6	13.4	3.4	16.8
Mullaitivu	3.3	60.4	27.4	6.3	33.7
Batticaloa	3.7	75.7	9.4	9.2	18.4
Amparai	7.3	61.4	13.9	11.9	25.8
Trincomalee	4.8	63.3	18.5	10.5	39.0
Kurunegala	2.0	64.6	26.8	4.5	31.3
Puttalam	6.7	67.8	18.7	5.0	23.7
Anuradhapura	7.1	60.0	23.4	7.7	31.1
Polonnaruwa	1.9	47.7	40.8	8.6	49.4
Badulla	43.5	24.1	14.8	13.7	28.5
Moneragala	5.6	34.6	29.7	28.9	58.6
Ratnapura	19.2	34.1	21.9	22.8	44.7
Kegalle	9.9	51.3	28.7	7.5	36.2

Source: Department of Census and Statistics (1982) Census of Population and Housing, Sri Lanka - 1981 Housing Tables based on Ten percent sample.

Appendix 37 DISTRICTS FACILITATED WITH UNSATISFACTORY TOILETS (%), 1981



Appendix 58 TOILET FACILITIES IN OCCUPIED HOUSING UNITS : 1981

District	Flush Toilet		Water Seal		Pit		Bucket Type		None	Not Stated	Pit + Bucket Type + None	Bucket + None
	Exclu- sive	Shared	Exclu- sive	Shared	Exclu- sive	Shared	Exclu- sive	Shared				
Sri Lanka	3.7	1.1	17.6	4.3	30.8	7.1	0.9	1.1	30.9	2.5	70.8	32.9
Colombo	13.9	6.5	26.2	11.8	17.1	8.5	1.1	4.3	7.5	3.3	38.5	12.9
Gampaha	3.0	0.3	28.9	5.5	35.6	8.4	0.6	1.0	14.5	2.2	60.1	16.1
Kalutara	2.4	0.4	32.1	6.8	25.7	5.7	0.4	0.3	23.3	2.9	55.4	24.0
Kandy	4.8	0.9	12.0	3.1	48.1	11.5	1.1	1.4	14.3	2.8	76.4	16.8
Matale	1.7	0.3	6.7	1.8	46.2	11.2	1.5	1.4	27.8	1.4	88.1	30.7
Nuvara Eliya	3.5	0.9	13.6	12.1	17.4	21.0	0.6	3.4	19.4	8.2	61.8	23.4
Galla	1.0	0.2	28.0	4.5	33.6	5.2	0.1	0.1	26.1	1.3	64.7	26.3
Matara	1.5	0.5	19.4	2.7	46.8	7.6	0.3	0.1	19.9	1.2	74.7	20.3
Hambantota	1.0	0.1	7.8	1.0	57.9	6.2	0.5	0.2	24.8	0.6	89.6	25.5
Jaffna	6.9	0.5	26.4	2.2	13.5	1.4	2.9	1.1	42.8	2.2	61.7	46.8
Mannar	4.2	1.0	4.4	0.8	7.4	1.3	3.5	1.7	72.3	3.5	86.2	77.5
Vavuniya	2.2	1.0	3.8	0.9	8.0	2.3	0.0	1.1	74.9	5.9	86.3	26.0
Mullaitivu	1.5	0.3	7.4	0.8	4.8	0.4	1.5	0.0	81.4	1.8	88.1	82.9
Batticaloa	1.2	0.2	5.4	0.4	4.5	0.5	4.4	0.8	80.2	2.5	90.4	85.4
Amparai	2.7	0.4	7.9	1.8	12.9	1.9	1.4	0.2	64.5	6.8	80.9	66.1
Trincomalee	3.5	0.5	4.4	1.4	15.1	2.7	1.4	6.2	62.4	2.4	87.8	70.0
Kurunegala	1.5	0.2	14.2	1.8	31.7	4.0	0.4	0.4	44.2	1.8	80.7	45.0
Puttalam	1.5	0.1	22.3	2.6	8.6	1.6	1.5	0.3	59.7	1.9	71.7	61.5
Anuradhapura	2.2	0.3	7.5	1.2	24.7	3.4	0.7	0.9	57.4	1.7	87.1	59.0
Polonnaruwa	1.3	0.3	9.8	2.4	53.2	5.3	0.9	0.3	25.4	0.9	85.1	26.6
Badulla	3.4	0.9	11.2	6.6	31.4	13.9	0.7	0.7	27.2	4.0	73.9	28.6
Moneragala	1.0	0.1	3.5	0.2	46.7	3.0	0.1	0.0	44.6	0.9	96.4	46.7
Ratnapura	1.9	0.4	12.1	4.2	45.1	10.1	0.2	0.3	23.8	2.0	79.5	24.3
Kegalle	2.3	1.4	14.5	2.9	51.9	9.5	0.2	0.1	15.1	2.2	76.8	15.4

Source: Department of Census and Statistics (1982), Census of Population and Housing, Sri Lanka - 1981, Housing Tables Based on a ten percent sample
Preliminary Release No. 3, Colombo

Appendix 59 RELATION BETWEEN DIARRHOEAL MORTALITY AND TOILET AND WATER SUPPLY FACILITY

District	Diarrhoeal Death		Inadequate Toilet*		Inadequate Water**	
	Mortality #	%	%/Total Toilet***	%	%/Total Supply	%
SRI LANKA	40.4	100	32.9	100	27.8	100
Colombo	35.1	86	12.9	39	8.2	29
Gampaha			16.1	48	22.5	81
Mullaitivu	—	—	82.9	251	33.7	121
Kalutale	25.0	61	24.0	73	32.2	115
Kandy	49.3	122	16.8	51	25.6	92
Matale	70.2	173	30.7	93	37.6	135
Nuwara Eliya	56.7	140	23.4	71	15.7	56
Galle	30.9	76	26.3	79	30.6	110
Matara	20.5	50	20.3	61	40.9	147
Hambantota	36.0	89	25.5	77	46.6	167
Jaffna	29.1	72	46.8	142	9.8	35
Mannar	57.2	141	77.5	235	7.9	28
Vavuniya	39.9	98	76.0	231	16.8	60
Batticaloa	115.8	286	85.4	259	18.4	66
Amparai	106.3	263	66.1	200	25.8	92
Trincomalee	30.9	76	70.0	212	39.0	140
Kurnegala	28.8	71	45.0	136	31.3	112
Puttalam	39.5	97	61.5	187	23.7	85
Anuradhapura	39.2	97	59.0	179	31.1	111
Polonnaruwa	26.1	64	26.6	80	49.4	177
Badulla	47.8	118	28.6	87	28.5	102
Moneragala	50.8	125	46.7	142	58.6	210
Ratnapura	41.0	101	24.3	73	44.7	160
Kegalle	32.2	79	15.4	46	36.2	130

* Total sum of toilets excluding bucket type and other adequate toilets.

*** Percentage against all types of toilets.

** unprotected well

Mean of Diarrhoeal Mortality (per 100,000 population) during 5 years (1975~1979)

LABORATORY SERVICES

Appendix 60 OUTLINE OF HOSPITAL LABORATORY (1)

Laboratory	Director or Chief	No. of Pathologist	No. of Technologist and labour	No. of specimens	(Kinds of tests)
1. Dept. Pathology Colombo G.H.	MDI				
1) Bacteriology	MDI	1	(Technologist) 6	80/day (Table III-5-3)	
2) Hematology	MDI		12	150/day	
3) Biochemistry	MDI	1	15	350/day + 80~110 during night	
4) Clinical Pathology				400 block, 40 stamping, 150 body fluid/month	
2. Dept. Pathology Childrens Hospital	MDI				
1) Bacteriology		1	Technologist 16	1,108/month (Table III-5-3)	
2) Hematology			Orderly 3	3,498/month (15 tests)	
3) Biochemistry			Labour 3	4,366/month (48 tests)	
4) Histopathology				Biopsy 27, postmortem 12/month	
3. Laboratory of Soysa Maternity Hosp.		1	2	Some Biochemical and hematological tests, but only microscopy for bacteriological test	
4. Dept. Pathology Fever Hospital					
1) Bacteriology			Technologist 4	20-25 Specimens/day (Table III-5-3)	
2) Hematology			Assistant 2	(7 tests)	
3) Biochemistry				10-15 Urine analysis/day (8 tests)	
5. Dept. Pathology Kandy G.H.	MDI				
1) Bacteriology					(Table VI)-5-3)
2) Hematology					(28 tests)
3) Chemistry					(25 tests)
4) Histology					Biopsy and post mortem
5) Urine					(13 tests)
6) OPD Lab					(18 tests)
6. Dept. Pathology Kurunegala G.H.	MDI				
1) Bacteriology				100/day (Table III-5-3)	
2) Hematology				100/day (8 tests)	
3) Biochemistry				100/day (13 tests)	
4) Pathology				80/day	

Appendix 61 OUTLINE OF HOSPITAL LABORATORY (2)

Laboratory	Director or Chief	No. of Pathologist	No. of Technologist and labour	No. of specimens (Kinds of tests)
7. Dept. Pathology Galle G. H.				(Table III-5-3) 120/day (13 Hematology & 3 Serology tests) (26 tests)
1) Bacteriology				
2) Hematology				
3) Biochemistry				
8. Dept. Pathology Ruhuna G. H.				5~10/day (Table III-5-3) 90/day (4 Tests) 80~95/day (10 Tests) 200 blocks/month
1) Bacteriology				
2) Hematology				
3) Biochemistry				
4) Histopathology				
9. Dept. Pathology Auradhapura G. H. (Hematologist)				
1) Bacteriology			Technologist 10	150/day (Table III-5-3)
2) Hematology			(including	1,180/day (15 Hematology & Serology tests)
3) Biochemistry			(1 Senior Tech.)	
			Labour 3	770/day (21 tests)
10. Laboratory of Matara B. H.				(14 Hemat., 2 Serol. and 28 Biochem tests, and microscopy, of bacteria & parasites)
11. Laboratory of Tangalle D. H.			Technologist 1	Blood cellcount, Urive Analysis, Stool Examination Blood Surgen Urea (see Tables III-5-3, 4, 5)

G. H. : General Hospital, B. H. : Base Hospital, D. H. : District Hospital

Appendix 62 LISTS OF HOSPITAL LABORATORY TESTS (BACTERIOLOGY)

	Type of Laboratories										
	1	2	3	4	5	6	7	8*	9	10	11
<u>Microscopy</u>											
Gram stain	+	+	+	+	+	+	+		691	+	+
Ziel -Nielsen stain		+	+	+	+	+	+		1,105	+	+
Giemsa stain		+		+	+					+	+
Parasitological	+	+		+	+	+			144	+	
Fungus		+			+						
<u>Culture***</u>											
Blood culture	+	37		+	+	+	+		25		
Upper respiratory culture	+	56		+	+	+	+				
C. diphtheriae		+			+				110		
Sputum culture	+	73			+	+	+				
T B		+			+						
Urine culture	+	432		+	+	+	+	5-10	1,220		
Genital tract culture	+				+	+			60		
gonococcal	+				+						
Skin culture	+										
fungal											
Eye culture	+			+		+	+				
Ear culture	+			+		+	+		22		
Wound culture (pus)	+			+	+	+	+		102		
CFS culture	+	109			+	+	+		672		
anaerobic culture									672		
CFS TB									36	+	
cytology									672	+	
biochemistry									672	+	
Stool culture§	+	157		+	+	+		1-2			
Salmonelle	+	+		+	△			△	567		
Shigella	+	+		+	△			△	567		
Cholera vibrio		+		+	△			△			
Pathogenic E. coli		+		+							
Campylobacter		+									
Anaerobic culture		+				+	+				
Drug resistancy test		+			+	+					
<u>Histology</u>											
Biopsy section		27			+						
Autopsy		+			+						
Post mortem section		12			+						

* Numbers of laboratory examinations : Lab. 2 represents tests performed per month,
 Lab. 8 per day and Lab. 9 per year.

§△ Serological identification is not available and only biochemical characterization has been performed.

Appendix 63 LIST OF HOSPITAL LABORATORY TESTS
(HAEMATOLOGY AND SEROLOGY)

Tests	Type of Laboratories										
	1	2	3	4	5	6	7*	8*	9*	10	11
Hb	+	+		+	+	+	21	30	924	+	+
PCV	+				+				22	+	+
WBC Count	+	+		+	+	+	53		8,522	+	+
RBC Count	+	+		+	+	+		50	10	+	+
Differential	+	+		+	+	+	1		8,522	+	+
Platelet count	+	+		+	+	+	2		360	+	+
Reticulocytes	+	+			+				122	+	+
E.S.R	+	+		+	+	+	28		5,420	+	+
Protrombintime	+	+			+	+			108	+	+
Clottingtime	+	+			+			10	144	+	
Fibrinogen	+				+						+
Osmotic fragility	+	+							2	+	
Direct Coomb's test	+				+						
Indirect Coomb's T.	+				+						
LE cell		+			+						+
Alkalinedenaturation T.	+	+			+						
Bownmarrow biopsy		+			+						
G6PD	+	+			+				15		
MCV	+								10	+	
MCHC	+								10	+	
MCH	+								10	+	
Malaria parasite		+			+		11				
Serum electrophoresis					+						
Antinuclear factor	+										
Cross - matching (B1. Bank)	+										
Widal test	+								584		
ASOT	+										
Rheumatoid factor	+					+			48		
VDRL			+			+		+	1,968	+	
SAT				+				+		+	
Pregnancy test							+			+	

* Number of tests : Lab. 7 and 8 show the numbers perday and Led. 9 per year.

Appendix 64 LIST OF HOSPITAL LABORATORY TESTS (BIOCHEMISTRY)

Tests	Type of Laboratories										
	1	2	3	4	5	6	7*	8*	9*	10	11
(Blood)											
Sodium	+	+				+	+	10-15	838	+	
Potassium	+	+				+	+		838	+	
Chloride	+	+			+	+					
Bicarbonate		+			+						
Magnesium											
Calcium	+	+			+		+				+
Phosphate	+				+		+				
Totalprotein	+	+			+	+	+	5	205	+	
Albumin	+	+			+		+		205	+	
Cholesterol	+					+	+		166	+	
Alk. phosphatase	+	+				+	+	5	416	+	
SGOT	+	+				+	+	20	1,262	+	
SGPT	+	+					+	20	1,262	+	
LDH	+										
Acidphosphatase	+	+					+		114	+	
Amylase	+	+			+	+	+				+
Glucose	+	+			+	+	+	10-15	1,093	+	+
Uricacid	+	-				+					
Urea	+	+				+	+	15-20	3,183	+	+
Creatinine	+										
Total bilirubin	+	+				+	+	12	1,381	+	+
Direct bilirubin	+	+				+	+		182	+	
Lipoprotein		+									
Triglyceride	+										
Abnormal Hb					+						
(C F S)											
Protein	+				+		+		634	+	
Glucose	+				+		+		634	+	
Chloride	+				+					+	
(Urine)											
Bence-Jones Protein	+						+			+	+
Albumin					+						
Urobilinogen	+			+	+		+		1,123	+	+
Bilirubin	+			+	+		+		1,123	+	+
Ketone	+			+	+		+		24	+	+
Glucose	+			+	+		+		6,224	+	+
Protein	+			+	+		+		8,400	+	+
Blood	+			+	+		+			+	+
Diastase					+						
Nitrite											
Calcium					+						
White, Red Cells	+			+	+		+		7,944	+	+

Appendix 65 INSTANCES OF BACTERIOLOGICAL TESTS IN 1982

	Jan	Fel	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
(MRI)													
1. No. of Specimens	143	132	184	222	192	163	175	121	152	157	247	131	2,019
V. cholerae Ogawa	2	8	11	20	9	5	1	4	5	8	0	0	73
Inaba	0	0	1	0	0	0	0	0	0	0	0	0	1
2. No. of Specimen	109	87	107	120	135	143	166	115	135	130	232	127	1,606
Salmonella	2	7	4	3	0	2	4	2	4	4	2	1	35
Shigella	2	1	7	1	0	1	5	3	10	1	2	2	35
E. coli(pathogenic)	0	0	0	0	1	1	1	1	1	0	0	1	6
(Fever Hospital)													
No. of Specimens	194	161	94	91	81	389	857	518	315	429	603	469	4,201
V. cholerae Ogawa	11	25	63	1	1	0	0	0	1	1	0	0	103
Inaba	1	0	1	0	0	0	0	0	0	0	0	0	2
Salmonella	0	7	3	6	7	3	1	2	2	0	1	2	34
Shigella	20	18	13	10	12	99	379	178	93	137	200	105	1,264
E. coli(pathogenic)	0	0	0	0	0	0	0	0	0	0	0	0	0
(Childreins Hospital)													
No. of Specimens	241	254	511	605	250	308	621	315	173	215	1,411	398	5,302
V. cholerae Ogawa	0	5	26	2	1	1	0	0	0	0	0	0	35
Inaba	0	0	5	0	1	0	0	0	0	0	0	0	6
NAG	0	0	2	0	0	0	0	0	0	0	0	0	2
Salmonella	36	17	11	10	11	33	45	25	9	16	8	12	233
Shigella	7	14	9	5	10	43	53	27	7	37	42	77	331
E. coli(pathogenic)	23	24	18	23	14	12	26	6	5	10	4	12	177

Appendix 66 PRESENT STATUS OF HOSPITAL LABORATORIES

Laboratory	Shortage of Manpower	Shortage of supply:		Shortage of adequate equipment for				
		Reagents	Diagnostic sera	Bacteriol	Serology	Hematol.	Biochem.	Pathol.
1	+		+	+	+	+*	+*	+*
2	+	+(Bioch)		+	(+)		+*	
4		+	+	+	(+)	+	+	+
5			+	+	(+)			
6			+	+	(+)			
7	+*				(+)	+		
8					(+)	+*		+*
9	+		+	+	(+)	+	+	+

+ indicates "yes".

Appendix 67

Disease	Bangladesh ¹⁾ (1981)	Indonesia ²⁾ (1980)	Philippines ³⁾ (1979)	Sri Lanka ⁴⁾ (1982)	Thailand ⁵⁾ (1981)
Dis ⁶⁾ of Respiratory System	3,110			2,541	8,980
Upper Resp. Infection		3,130	406		
Bronchitis		858	471		
Pneumonia			272		
Other Respiratory Dis					
Infectious & Parasitic Dis				2,132	5,060
Diarrhea	4,170	1,235	466	(1,100)	(513)
Dysentery			60.7	intestinal	(92)
Hepatitis			18.0	infection)	
Tuberculosis	160	604	234	(75)	(30)
Malaria	440	271	682	(290)	(344)
Leprosy	20				
Tetanus	60				
Poliomyelitis	40				
Measles	320		62.8		
Eye Infections		372			
Other Infections		221			
Helminthiases	2,710			(171.8)	
Dis of Skin and	2,250	835		625.6	2,120
Subcutaneous Tissues	(Infection)				
Dis of Circulatory System		856		656.6	1,090
		(Rheum:265)			
Dis of Digestive System				672	5,230
Injury and Poisoning		205		1,753	3,250
Dis of Genito-Urinary				650	1,560
System					
Neoplasm			434	123.6	170
Dis of Nervous System		209		616.2	2,760
and Mental Disorders					
Dis of Musculo-Skeletal		364		439.1	1,320
and Connective Tissues					
Dis of Blood and				348.9	510
Blood-forming Organs					
Complication of Pregnancy,				222.1	1,050
Birth and Puerperium				(Abortion)	
Perinatal Morbidity				84.2	250
Endocrine, Nutritional				219.2	1,050
and Metabolic Disorders					
Nutritional Deficiency	2,280			124.9	
Anemias		206		330.7	
Nyctalopia	650				
Goiter	70				
Total	16,280	11,486		15,408	43,510
Infections (%)	81.6	58.3		30.3	32.3
Nutritional Deficiencies (%)	18.4	1.8		3.0	

Health Information Unit
Household Survey
Dis:Diseases

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