

3. Immunization Program

Immunization activities are conducted through the MCH fixed and mobile clinics. Prior to 1981, the target population included was children less than 5 years of age. In 1981, the strategy was changed to emphasize coverage of the less than 1-year old population with the WHO-recommended vaccines. The stated objectives for 1982 is to achieve 75% coverage of the less than 1-year old population against the 6 EPI target diseases.

Table 18 presents the national coverages with the EPI vaccines for 1980/1981 - for the <1 year old population. With the exception of BCG, coverages with all vaccines has increased in both rural and urban areas. An explanation for the decrease in coverage with BCG is that prior to 1981, the public health nurses in Belize City were assigned to the Belize City Hospital and were therefore vaccinating all newborns prior to discharge. In 1981, these nurses were assigned to the OPD's and therefore BCG immunizations were delayed until the 1st prenatal visit as the maternity ward nurses were unable to immunize the infants prior to discharge.

Coverage of the less than 5-year old population is estimated to be close to 100%. A high level of coverage of the childhood population with DPT and polio vaccines is further supported by the low incidences of diphtheria, pertussis, tetanus and polio. The lower coverages with measles vaccine are supported by the continued presence of measles

epidemics in 3-4 year cycles.

The recommended vaccine schedule calls for 3 doses of DPT and polio vaccines beginning at 2 months of age, with intervals of 1-2 months between doses, and measles vaccination to begin at 9 months of age, thus requiring four contacts with the health service to complete the immunization schedule. As there was no national shortage of any of the vaccines in 1980 nor 1981, the lower coverages seen with measles vaccine may be explained by a natural attrition that occurs with each further contact necessary to achieve a target.

Vaccines are purchased through the PAHO revolving fund.

Outreach to capture "delinquent" children is limited due to limited resources available.

4. Control of Diarrheal Diseases Program

Diarrheal diseases are a major cause of morbidity and mortality in the less than 5-year old population. In 1980, a national program to reduce the impact due to diarrheal diseases was instituted. This program at present places an emphasis on the reduction of mortality through the usage of oral rehydration salts (ORS) in the management of acute diarrhea and an educational component to prevent future episodes of diarrhea and maintain nutritional status of children through proper feeding practices during acute diarrheal episodes.

In 1981, a program director attended a PAHO sponsored national program manager's training course in Georgetown, Guyana. The designated

program director is a nursing matron in charge of in service training programs. As of August 1982, an ORS unit has been established at Belize City Hospital and 6 of the 7 district hospital nursing staffs have attended training seminars.

Early successes of this program were apparent during field visits at which time all staff interviewed mentioned that pediatric ward occupancies have decreased markedly since the introduction of the ORS for treatment.

Table 19 shows the number of children with diarrheal disease episodes treated monthly by the oral rehydration unit. Belize City Hospital as compared with the number of children admitted for diarrheal episodes and the number of deaths due to diarrhea (N.B. children admitted and deaths include children not treated by the ORS unit) comparing the periods January - July in both years shows a significant decrease in the number of deaths ($\chi^2 = 5.3499$, $P = .02$). Using the 1981 statistics for proportion of deaths, by July of 1982, 5 deaths were expected while none occurred. Country-wide, the number of deaths from diarrheal diseases in the less than 1-year old age group has decreased from 45 in 1979, to 28 in 1980 (the first year of implementation of ORS), to 24 in 1981 (1982 mortality figures were not available).

While program performance data on number of children treated with ORS were not available, reviews of clinic records in all health centers visited revealed that ORS was used in treating all cases of gastroenteritis seen during the months of July and August.

5. Family Planning

At the present point in time there is no family planning program in Belize. The only family planning activities at present involves educational programs on child spacing as part of the nutrition program.

Of anecdotal interest, the Belize Primary Health Care Program Proposal was under consideration for funding by the UNFPA, but funding was denied when the family planning component was dropped by the government.

6. Dental Health Program

At the present point in time the only preventive dental health activities include educational programs aimed at improving personal dental hygiene. There is no fluoridation of water supplies in the country. The only dental services regularly available in the government dental clinics are extractions. In 1981, over 7,000 extractions were performed in the Belize City Hospital Dental Clinics, with estimates country wide running above 14,000.

Table 1 Demographic characteristics, Belize, 1970-1981

Year	Population	Births/1000 population Natality	Births/1000 population 15-44 yrs Fertility	Rate/1000 population Mortality	Rate/1000 live births		Rate of natural increase per 1000 population
					Infant Mortality	Neonatal	
1970	119,934	37.1	191.6	6.8	N/A	N/A	30.3
1971	123,536	40.9	211.3	6.2	60	31	34.7
1972	127,137	38.6	199.3	6.5	N/A	N/A	32.1
1973	128,298	39.1	201.4	6.1	N/A	N/A	33.0
1974	126,712	39.3	202.6	5.3	N/A	N/A	34.0
1975	128,739	40.4	209.3	5.6	50	10	34.8
1976	130,928	41.6	215.7	6.2	45.9	N/A	35.4
1977	133,285	41.8	215.6	6.3	N/A	N/A	35.5
1978	135,684	39.7	204.0	6.4	34	12.5	33.3
1979	138,000	40.0	206.3	4.9	30	9.7	35.1
1980	145,353	38.6	218.0	5.6	38	9.8	33.0
1981	147,000	41.0	213.6	4.7	27	13.6	36.3

Source - collation of data from:

1. Health profile of Belize 1982
2. Report primary health care workshop, 11-15 May 1981
3. Belize 1980 census
4. Consultant report - malaria - 21 July - 18 August 1980

Table 2 Demographic characteristics, by district, Belize, 1980

District	Population	No. of births	Birth rate per 1000 population	No. infant deaths	Infant mortality per 1000 LB's	Total deaths	Death rate per 1000 population	Deaths in population >50 yrs	Proportion of deaths in >50
Cordzal	22,902	798	34.8	34	42.6	93	4.1	33	35.5%
Orange Walk	22,870	927	40.5	34	36.7	77	3.4	20	26.0%
Belize	50,801	2112	41.6	71	33.6	398	7.8	237	59.5%
Cayo	22,837	627	27.5	17	27.1	71	3.1	30	42.3%
Stann Creek	14,181	539	38.0	23	42.7	70	4.9	30	42.9%
Toledo	11,762	600	51.0	35	58.3	111	9.4	21	18.9%
Total	145,353	5603	38.5	214	38.2	820	5.6	371	45.2%

Source: Health profile of Belize, 1982 - Ministry of Health,
Housing and Cooperatives

*Table 3 Ten leading causes of hospitalization, Belize City
Hospital, (excluding normal deliveries), 1980-1981*

Cause	1981			1980		
	Rank	No.	%	Rank	No.	%
Direct obstetric care	1	574	20.6	2	520	14.3
Other diseases of the respiratory system	2	308	11.1	6	388	10.6
Diseases of the female genital organs	3	287	10.3	10	214	3.4
Abortion	4	282	10.1	7	309	8.5
Diseases of other parts of the digestive system	5	280	10.1	4	459	12.6
Intestinal infectious diseases	6	276	9.9	1	563	15.4
Signs, symptoms and ill-defined conditions	7	255	9.2	5	419	11.5
Fractures	8	233	8.4	8	266	7.3
Disorders of eye and adnea	9	152	5.5	9	126	3.5
Diseases of the urinary system	10	133	4.8	3	473	13.0
TOTAL		2780	100.0		3647	100.1

Source: Belize Department of Medical Statistics, Statistical report for the year 1981, Ministry of Health, Housing and Cooperatives.

*Table 4 Leading diagnoses among hospital discharges,
Belize City Hospital, 1980*

<i>Diagnosis</i>	<i>% of Total*</i>
1. Normal delivery	23
2. Direct obstetrical causes	11
3. Intestinal infectious diseases	8
4. Trauma	7
5. Respiratory tract diseases	6
6. Urinary tract disease	6
7. Digestive tract disease	6
8. Ill defined conditions	6
9. Hypertensive disease	2
10. Skin disease	2
11. Diseases of blood	2
12. Eye disease	2
13. Diseases of female genitalia	2
14. Endocrine, metabolic, immunity	1
15. Adverse drug effect	1
16. Other causes	15

*N = 7393

Source: Health profile Belize, 1982, Ministry of Health,
Housing and Cooperatives

*Table 5 Leading causes of hospital admissions by hospital/district,
Belize, 1981 (excluding direct obstetrical causes)*

<i>Hospital</i>	<i>Cause</i>	<i>No. of Admissions</i>	<i>% of total Admissions</i>
<u>Belmopan</u>	1. Malaria	95	6.5
N* = 1462	2. Intestinal infectious diseases	65	4.4
	3. Signs, symptoms and ill defined conditions	56	3.8
<u>Corozal</u>	1. Ill defined conditions	58	4.9
N = 1184	2. Gastroenteritis	36	3.0
	3. Other injuries, early complication of trauma	36	3.0
<u>Stann Creek</u>	1. Intestinal infectious diseases	111	5.9
N = 1872	2. Signs, symptoms and ill defined conditions	108	5.8
	3. Other diseases of the respiratory system	63	3.4
<u>Orange Walk</u>	1. Signs, symptoms and ill defined conditions	86	4.2
N = 2052	2. Intestinal infectious diseases	56	2.7
	3. Diseases of other parts of the digestive system	21	1.0
<u>Toledo Punta Gorda</u>	1. Congestive heart failure	N/A	
N = 1085	2. Intestinal infectious diseases	N/A	
	3. Other diseases of the respiratory tract	N/A	
<u>Cayo - San Ignacio</u>	1. Signs, symptoms and ill defined conditions	247	19.9
N = 1244	2. Intestinal infectious diseases	59	4.7
	3. Mental disorder	18	1.4
N = total admissions			

Source: Belize Department of Medical Statistics, Statistical report for the year 1981, Ministry of Health, Housing and Cooperatives

*Table 6 Leading causes of outpatient visits,
Belize City outpatient clinics, 1980*

<i>Cause of Visit</i>	<i>% of Total Visits*</i>
1. Respiratory disease	26
2. Trauma	12
3. Ill defined conditions	8
4. Intestinal infectious diseases	7
5. Other infectious diseases	7
6. Skin disease	6
7. Musculoskeletal disease	4
8. Digestive system disease	3
9. Hypertensive disease	3
10. Urinary tract disease	3
11. Mental disorders	3
12. Ear disease	2
13. Other causes	13

*N = 57,786

Source: Health profile Belize, 1982, Ministry of
Health, Housing and Cooperatives

*Table 7 Ten leading causes of death, all ages,
Belize, 1981*

<i>Rank</i>	<i>Cause of Death</i>	<i>No. of Deaths</i>	<i>% of Total Deaths*</i>	<i>Rate/10,000 Population</i>
1	Diseases of the circulatory system	219	31.7	14.9
2.	Certain conditions originating in the perinatal period	70	10.1	4.8
3.	Pneumonia and influenza	64	9.3	4.4
4.	Malignant neoplasms	55	8.0	3.7
5.	Intestinal infectious diseases	41	5.9	2.8
6.	Bronchitis, emphysema, asthma	35	5.1	2.4
7.	Septicemia	28	4.1	1.9
8.	Accidents and trauma	24	3.5	1.6
9.	Diabetes mellitis	19	2.7	1.3
10.	Chronic liver disease and cirrhosis	13	1.9	0.9

*Total deaths = 691

Source: Health profile, Belize, 1982, Ministry of Health
Housing and Cooperatives

*Table 8 Reported causes of early childhood mortality
by age groups, Belize, 1981*

<i>Reported Cause of Death</i>	<i>Age Group</i>					
	<i>0-28 days</i>		<i>1-11 months</i>		<i>1-4 years</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
1. Signs, symptoms & ill defined conditions	1	1.2	5	6.3	4	9.3
2. Accidents (including burns & intra-cranial injuries)	0	0	0	0	4	9.3
3. Bronchitis, emphysema, asthma	4	4.7	13	16.5	4	9.3
4. Ulcers - duodonal & gastric	0	0	1	1.3	1	2.3
5. Congenital anomalies	2	2.4	5	6.3	3	7.0
6. Conditions arising in the perinatal period	60	70.6	10	12.7	0	0
7. Ischemic heart disease	2	2.4	0	0	0	0
8. Deficiencies in pulmonary circulation & other heart disorders	1	1.2	2	2.5	0	0
9. Cerebrovascular accidents	0	0	0	0	0	0
10. Meningitis	0	0	0	0	1	2.3
11. Acute myocardial infarction	1	1.2	0	0	0	0
12. Pneumonia	7	8.2	9	11.4	9	20.9
13. Influenza	0	0	3	3.8	0	0
14. Diabetes Mellitis	0	0	4	5.1	0	0
15. Anemia	0	0	3	3.8	0	0
16. Diseases of the central nervous system	0	0	0	0	1	2.3
17. Intestinal infectious diseases	6	7.1	18	22.8	8	18.6
18. Septicemia	1	1.2	6	7.6	4	9.3
19. Measles	0	0	0	0	2	4.7
Sub-total infectious diseases	14	16.5	36	45.6	22	51.2
TOTAL	85	100.2	79	100.1	43	100

Source: Belize Department of Medical Statistics, Statistical
Report for the year 1981, Ministry of Health, Housing
and Cooperatives

*Table 9 Infectious disease deaths, by cause
Belize, 1978-1980*

<i>Rank</i>	<i>Cause</i>	<i>No. of Deaths</i>	<i>% of ID Deaths</i>
1	Enteritis & diarrhea	179	34.2
2	Pneumonia	176	33.6
3	Other infectious causes	97	18.5
4	Tuberculosis	26	5.0
5	Influenza	21	4.0
6	Measles	17	3.3
7	Tetanus	5	1.0
8	Pertussis	1	0.2
9	Meningococcal	1	0.2

Source: Health profile Belize, Ministry of
Health, Housing and Cooperatives

*Table 10 Reported cases of the 5 leading
communicable diseases, 1980-81*

<i>Disease</i>	<i>1980*</i>		<i>1981**</i>	
	<i>No.</i>	<i>Rate/10,000</i>	<i>No.</i>	<i>Rate/10,000</i>
Malaria	1608	110.63	2072	140.95
Gastro	888	61.09	878	59.73
Measles	609	41.76	186	12.65
Gonococcal	161	11.08	145	9.86
Influenza	3	0.21	117	7.96

* 1980 population 145,353

**1981 population 147,000

Source: Belize Department of Medical Statistics,
Statistical report for th year 1981

*Table 11 Annual incidence of diseases reported to CAREC
from Belize, 1980, 1981, thru week ending 31 Aug 1982*

	1982	1981	1980
<i>Disease</i>	<i>No. Cases</i>	<i>No. Cases</i>	<i>No. Cases</i>
Malnutrition	3	9	—
Amebiasis	16	—	1
Malaria	1651	2072	1608
Influenza	36	21	
Resp	—	—	20
TB (all forms)	36	33	21
Diphtheria	4	—	—
Pertussis	—	58	11
Tetanus (non NNT)	3	3	1
Poliomyelitis	0	—	3
Measles	4	186	607
Tetanus neonatorum	—	2	—
Typhoid fever	—	1	2
Dengue	447	9	4
Foodborne illness	1	—	—
Gastro (<5 y)	521	493	—
Rubella	6	6	—
Viral hepatitis	70	36	26
Syphillis	63	—	—
Gonococcal inf's	333	—	—
Ciguatera poisoning	2	1	—
Meningitis	—	3	—
Bacillary	—	3	3
Unspecified dysentery	35	73	
Gastro	142	165	—
Mumps	25	19	22
Chicken pox	34	41	56
Pneumonia	3	7	6

Source: Weekly reports to CAREC from the
Department of Statistics, Ministry
of Health, Housing and Cooperatives

*Table 12 Number of reported cases of communicable diseases,
Belize, 1970-1981 by disease and year*

Disease	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Malaria	33	33	80	99	96	90	204	876	1,200	1,430	1,608	2,072
Pertussis	46	213	23	12	131	128	18	52	8	2	11	55
Measles	361	48	501	166	8	429	1,341	19	230	240	541	156
Tetanus	1	6	3	4	2	2	N/A	N/A	5	4	1	3
Polio	0	0	2	1	3	0	0	0	1	3	0	0
Diphtheria	0	0	1	0	0	1	0	0	0	0	1	0
Typhoid	2	5	3	5	4	7	5	4	2	10	2	1
Tuberculosis	43	29	27	25	41	29	N/A	31	16	33	21	33
Hepatitis	19	34	50	85	60	47	16	35	37	37	25	36
Gonorrhea	241	386	349	359	249	273	N/A	177	101	140	121	145
Syphilis	42	82	331	287	165	191	N/A	138	28	47	15	29
Population at risk	119,934	123,536	127,137	128,298	126,712	128,739	130,928	133,285	135,684	138,000	145,353	147,000

Source: Health profile Belize, 1982, Ministry of Health, Housing and Cooperatives

*Table 13 Prevalence of malnutrition among Toledo children,
0-36 months of age, seen by government MCH services, 1976*

Location	No. Children 0-36 mos.	Nutritional Status (%)			
		Normal	Gomez I	Gomez II	Gomez III
Punta Gorda	171	63	30	5	2
Big Falls	54	37	46	13	4
Silver Creek	18	28	44	28	-
Rice Station	30	43	33	20	3
Fairview	32	53	31	16	-
Dump	10	100	-	-	-
Laguna	44	50	30	18	2
TOTAL	359	54	33	11	2

Source: Analyses from clinic records of weights
at Punta Gorda Hospital for 1976 as
contained in: Consultation report,
primary health care services, Belize
profile and analysis

*Table 14 Nutritional status assessment of 0-3 year olds
in selected clinics, Belize, 1981*

<i>Age Group</i>	<i>No. of Children</i>	<i>% of Total</i>	<i>% Obese</i>	<i>% Normal</i>	<i>% Gomez I, II, III</i>
0-11 mos	3594	82	14	71	15
1-3 years	765	18	4	41	55
0-3 years	4359	100	12	66	22

*Table 15 Nutritional status of 1-3 year olds
in selected clinics, by area, 1981*

<i>Clinic</i>	<i>No. Children</i>	<i>% Gomez I,II,III</i>	<i>% Obese</i>
Corozal Town	63	65 (41)	3
Orange Walk Town	115	59 (68)	1
Maskal, Belize	44	45 (20)	0
San Ignacio, Cayo	58	50 (29)	3
Benque Viejo, Cayo	51	25 (13)	0
Dangriga, Stann Creek	25	68 (17)	0
San Pedro Colombia, Toledo	96	70 (67)	3
Punta Gorda, Toledo	106	71 (75)	1
TOTAL	558 (73%)	59% (330)	

Source: Report on the consultanship to the Ministry
of Health, Housing and Cooperatives of
Belize in the evaluation of the Belize
food and nutrition policy, 23 March -
22 April 1982

*Table 16 Prenatal clinic attendance, by gestastional date of visit and district,
and tetanus immunisation administration, Belize, 1981*

<i>District</i>	< 5 mos. <i>First Visit</i>	< 5 mos. <i>Later Visit</i>	> 5 mos. <i>First Visit</i>	> 5 mos. <i>Later Visit</i>	<i>Total Prenatal Visits</i>	<i>Tetanus Toxoid</i>	
						<i>Complete Dosage</i>	<i>Booster</i>
Belize	475	194	891	5,710	7,270	389	71
Córoza	300	120	566	2,452	3,418	299	33
Orange Walk	264	100	884	3,302	4,550	247	158
Cayo	435	277	574	3,102	4,388	210	71
Stann Creek	181	136	357	1,611	2,285	220	106
Toledo	221	186	318	1,581	2,306	197	106
TOTALS	1,876	1,013	3,590	17,738	24,217	1,562	545

Source: Health profile Belize, 1982

Table 17 Child health clinics, Belize, 1981

District	Target Population	Fixed Clinics		Mobile Clinics			
		Attendance	No. clinics Held	Attendance	No. Areas Covered	No. Areas Scheduled	% Visits Held
Belize	8,580	14,032	227	2,788	30	269	39.0
Corozal	3,868	2,223	93	2,057	20	220	31.4
Orange Walk	3,863	3,808	174	3,387	24	276	47.5
Cayo	3,857	4,904	139	3,327	35	385	36.9
Stann Creek	2,395	3,477	173	3,638	21	231	90.9
Toledo	1,987	3,922	205	4,938	34	374	54.5
TOTAL	24,550	32,366	1,011	20,135	164	1,955	49.1

Source: Health profile Belize, 1981

*Table 18 Immunization coverage of EPI target population
by place of immunization (urban vs. rural)
Belize, 1980-1981*

<i>Vaccine</i>	<i>1980</i>			<i>1981</i>		
	<i>Total</i>	<i>Urban</i>	<i>Rural</i>	<i>Total</i>	<i>Urban</i>	<i>Rural</i>
DPT	44.7	56.3	32.2	50.4	66.0	33.7
Polio	41.4	54.7	27.1	50.6	66.7	33.3
Measles	20.0	21.6	18.3	36.9	47.3	25.8
BCG	66.5	90.3	40.9	65.9	83.7	46.8

Children < one year of age in 1980 = 5100; in 1981 = 5301

Source: Belize health profile 1982 and the
1981 EPI program report

Table 19 Number of children with diarrheal disease episodes treated by the oral rehydration unit Belize City Hospital 1981-July 1982, and the number of diarrheal disease admissions and deaths

Month	1981			1982		
	No. Treated	No. Admitted	No. Deaths	No. Treated	No. Admitted	No. Deaths
Jan	65	7	0	47	5	0
Feb	90	5	0	34	0	0
Mar	107	5	0	37	0	0
April	85	12	0	41	0	0
May	89	3	1	53	4	0
June	73	2	4	61	1	0
July	55	2	2	143	3	0
Aug	27	2	0			
Sept	33	1	1			
Oct	29	2	2			
Nov	40	0	0			
Dec	54	0	0			
TOTAL	747	41	10	416	13	

Source: National CDD program director report

Case No.

DIPHTHERIA INVESTIGATION

Name _____ Age _____ Sex _____ Occupation _____

Home Address _____ X Travel to other districts within last

School/Work Address _____ 30 days ☐ Yes ☐ No

ILLNESS DA: Physician: _____

Onset: _____ Address: _____

Reported _____ Hospital: _____

Immunization by ☐ D.P.T. History of close contact with any disease within
DOSE Date of Vaccination previous 60 days

☐ Yes ☐ No

2
3
4

CLINICAL HISTORY

* <u>LABORATORY TESTS</u>				<u>FINAL DIAGNOSES</u>
<u>SPECIMENS TESTED</u>	<u>DATE</u>	<u>LAB NO.</u>	<u>RESULT</u>	
<u>LOCAL LAB.</u>	<u>OBTAINED</u>			
				Name of Investigator _____
				Date: _____
<u>REFERRED TO</u>				
<u>CAREC</u>				

* Use back of form for additional notes.

Case No.

UNRECORDED PENDING COUNTY (CARD)

POLYMERIZATION INVESTIGATION

[illegible]

Home Address _____ * Travel to other districts within last
30 days ☐ Yes ☐ No

School/Work Address

ILLNESS

DATE _____

Physician: _____

Onset

Address: _____

Hospitalized

Phone: _____

Reported

Hospital: _____

Immunization by ☐ OPV (Sabin) ☐ Inactivated Vaccine (Salk)

DOSE | Date of Vaccination |

If oral vaccination within 30 days prior to onset:

1	
2	
3	
4	

Mfr. _____ Lot No. _____

Household or close contact with oral vaccine within previous 60 days

☒ Yes ☐ No

CLINICAL HISTORY

PRELIMINARY DIAGNOSIS

Non-paralytic polio

☐ paralytic Polio

Type ☐ Bulbar

of ☐ Spinal

Paralysis ☐ Bulb-
☐ Spinal

* LABORATORY TESTS

SPECIMENS TESTED

DATE

LAB NO.

RESULT

LOCAL LAB

OBTAINED

LAB NO.

RESULT

REFERRED TO

CAREC

FINAL DIAGNOSIS

Name of Investigator:

Date: _____

* Use back of form for additional notes

CARIBBEAN EPIDEMIOLOGY CENTRE (CAREC)
TYPHOID FEVER INVESTIGATION

NAME: _____ AGE: _____ SEX: _____ OCCUPATION: _____

HOME ADDRESS: _____

WHERE EMPLOYED: _____

<u>ILLNESS</u>	<u>DATE</u>
Date of Onset	Physician : _____
Stayed Home	Address: _____
Began Treatment	_____
Hospitalised	_____
Reported	Phone : _____

T/TAB Vaccination (Date): _____

DIAGNOSIS

Suspect

Confirmed

RESULTS AND DATES

Culture Blood _____

Stool _____

Urine _____

Widal _____

DURING FOUR WEEKS PRIOR TO ONSET OF ILLNESS

Water Source/s

Swimming _____

Milk/ Ice Cream Source/s

Food - Meals/ Snacks consumed (Other than at residence)

Sewage Disposal:

Additional Informations /Action taken:

EVALUATION OF A MALARIA CASE

Country: _____ State: _____ Investigation No. _____
 NATIONAL MALARIA ERADICATION SERVICE Munic: _____
 HISTORY OF THE CASE PART A Date: _____

Name of Patient: _____		EVALUATION OF THE CASE PART B, Date: _____			
Years Age: Months	Stage of	Date	Case No.		
Name of the Head of the Family	Primary		Related Case:		
Present residence: Since what time	attack				
Other residences during past 2 years	Release				
Locality from until	Where infected				
	Locality (ies)				
Occupation:	Munic:				
Place of work:	State:				
Slide taken by	Country				
Date:	(1) Proved (2) Presumptive (3) Possible				
Category					
Locality:					
Reason for taking slide:	Classified by:		Classification of case		
Date of laboratory examination	Examined by:				
Species of plasmodia and density of parasites	Reviewed by:				
Symptoms of this attack	Category:				
Dates of onset	Drugs taken	Doses	Date taken	Response to treatment	
Fever:					
Chills:					
Other:					
Other attacks and/or Slides taken					
Date Locality Date Locality Result					

Movement of the patient (places where he slept away from home and dates) and habits of sleeping (outdoors)

Contact with malaria case (known and suspected cases of malaria), dates of contact and addresses of the same, and dates of illness of contacts, if known,

Blood transfusion

Observations: (if necessary, use the back of this sheet,)
 (but note here such use)

Type of house:

Last date of spraying

Presence or absence of anophelines, breeding places etc.

Name in Capitals and signature of Investigator

GASTROENTERITIS OR FOODBORNE ILLNESS

CASE HISTORY FORM

NAME _____	Age _____	Sex _____	Ethnic Group _____
Address _____	Occupation _____	Place of Employment _____	
Phone _____	Other Information _____		

Signs and Symptoms (check appropriate items)			
<u>Intoxications</u>	<u>Enteric Infections</u>	<u>Neurological</u>	
Burning Sensation (mouth) _____	Abdominal Cramps _____	Headache _____	Numbness _____
Metallic Taste _____	Diarrhea _____	Chills _____	Dizziness _____
Excessive Salivation _____	Bloody _____	Myalgia _____	Double Vision _____
Nausea _____	Mucus _____	Edema _____	Blurred Vision _____
Vomiting _____	Watery _____	Jaundice _____	Dysphagia _____
Flushing _____	No./day _____	Anorexia _____	Dysphoria _____
Itching _____	Fever _____	Rash _____	Delirium _____
Prostration _____	*F _____	Weakness _____	Paralysis _____
Cyanosis _____	Duration _____	Dehydration _____	Coma _____

Other symptoms _____	Duration _____	Severity _____	Fatal _____
Physician Consulted _____	Address _____		
Hospital (name) _____	Address _____		

Specimens Obtained _____	Date of Collection _____	Laboratory Results _____
_____	_____	_____
_____	_____	_____
_____	_____	_____

REMARKS AND DIAGNOSIS _____

Ill _____ Well _____

Food history for previous 72 hours or other specified times:

Day of Illness		Day Before Illness		Two Days Before Illness	
Breakfast:	Date	Breakfast:	Date	Breakfast:	Date
Place	Hour	Place	Hour	Place	Hour
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Lunch:	Hour	Lunch:	Hour	Lunch:	Hour
Place	_____	Place	_____	Place	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Supper:	Hour	Supper:	Hour	Supper:	Hour
Place	_____	Place	_____	Place	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Snacks (item, time, and place)

History of eating suspect food _____ Source _____ Address _____

Common event and names and addresses of others at event: _____

Recent travel (locations)

Contacts with known cases before illness _____

Contacts after illness _____

Pets _____ Housing condition _____ Crowding _____ Water supply _____

Excreta disposal _____ Shellfish _____ Milk supply _____

REMARKS

INVESTIGATOR

DATE