



Food and Waterborne Diseases

Food and waterborne illnesses are conditions caused by eating or drinking food or water that is contaminated by microorganisms or the toxins they produce. It typically causes gastrointestinal symptoms such as abdominal pain, nausea, vomiting, and diarrhea. The mode of transmission is fecal-oral route. This summary report presents routinely collected FWBD data for the period of January 1 to April 27, 2019 (Table 1).

**Table 1. Food & Waterborne Diseases
Philippines, 2019* vs 2018**

FOOD/WATER-BORNE DISEASES	2019			2018	% Difference *2019 vs 2018
	Cases	Deaths	CFR (%)	Cases	
Acute Bloody Diarrhea	4,606	5	0.11	6,946	↓34
Confirmed Cholera	4	0	0.00	4	0
Confirmed Rotavirus	260	2	0.77	334	↓22
Hepatitis A	56	1	1.79	91	↓38
Typhoid Fever	6,923	14	0.20	6,638	↑4

PIDSR Case Definition for Food and Waterborne Diseases

Acute Bloody Diarrhea (ABD)	
Reported Case	<ul style="list-style-type: none"> A person with acute diarrhea with visible blood in the stool.
Cholera	
Suspected Case	<ul style="list-style-type: none"> Disease unknown in the area: A person aged 5 years or more with severe dehydration or who died from acute watery diarrhea, OR
	<ul style="list-style-type: none"> Disease endemic in the area: A person aged 5 years or more with acute watery diarrhea with or without vomiting, OR
	<ul style="list-style-type: none"> In an area where there is a cholera epidemic: A person with acute watery diarrhea, with or without vomiting.
Confirmed Case	<ul style="list-style-type: none"> A suspected case that is laboratory-confirmed. Isolation of <i>Vibrio cholerae</i> 01 or 0139 from stools in any patient with diarrhea.
Rotavirus	
Suspected Case	<ul style="list-style-type: none"> A child <5 years of age who undergoes treatment (means that the child received intravenous rehydration therapy while undergoing observation at the Emergency Room OR was admitted in a hospital ward) for acute diarrhea (passage of 3 or more watery stools within a 24-hour period for < 14 days) in a participating hospital.
Confirmed Case	<ul style="list-style-type: none"> A suspected case that has been laboratory-confirmed as Rotavirus.
Hepatitis A	
Suspected Case	<ul style="list-style-type: none"> A person with acute illness characterized by acute jaundice, dark urine, loss of appetite, body weakness, extreme fatigue and right upper quadrant tenderness.
Confirmed Case	<ul style="list-style-type: none"> A suspected case that is laboratory confirmed (positive for IgM anti-HAV).
Typhoid Fever	
Suspected Case	<ul style="list-style-type: none"> A person with an illness characterized by insidious onset of sustained fever, headache, malaise, anorexia, relative bradycardia, constipation or diarrhea, and non-productive cough.
Probable Case	<ul style="list-style-type: none"> A suspected case that is epidemiologically linked to a confirmed case in an outbreak.
Confirmed Case	<ul style="list-style-type: none"> A suspected or probable case that is laboratory confirmed. (Isolation of <i>Salmonella enterica</i> from blood, stool, or other clinical specimen)

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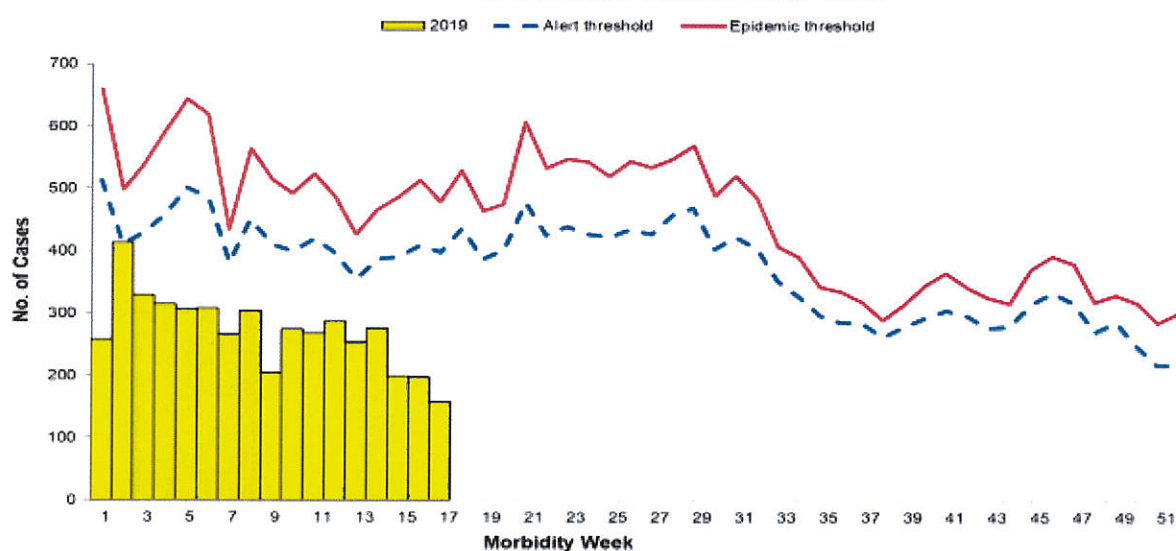


I. Acute Bloody Diarrhea (ABD)

Trend in the Philippines

A total of 4,606 acute bloody diarrhea cases were reported nationwide from January 1 to April 27, 2019. The distribution of cases for 2019 compared to epidemic and alert thresholds is shown below (Figure 1).

Figure 1. Reported Acute Bloody Diarrhea Cases by Morbidity Week as of January 1- April 27, 2019 (N=4,606)



Geographical Distribution

There was a 34% decrease of reported ABD cases from 6,946 cases in 2018 to 4,606 cases in 2019 for the same period (January 1 – April 27, 2019). Most of the reported cases were from the following regions: Region VII (1,546 or 34%), Region IX (699 or 15%), CARAGA (665 or 14%), and CAR (415 or 9%) (Table 2).

**Table 2. Acute Bloody Diarrhea Cases & Deaths (N=4,606)
 Philippines, 2019* vs 2018****

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	4,606	5	6,946	8	↓34
I	14	0	24	0	↓42
II	271	0	276	0	↓2
III	107	0	215	0	↓50
IV-A	144	0	278	0	↓48
MiMaRoPa	15	0	43	0	↓65
V	33	0	15	0	↑120
VI	11	0	16	0	↓31
VII	1,546	1	2,488	7	↓38
VIII	126	0	175	0	↓28
IX	699	2	1,091	0	↓36
X	306	1	617	0	↓50
XI	46	0	62	0	↓26
XII	80	0	85	0	↓6
ARMM	109	0	70	0	↑56
CAR	415	1	538	0	↓23
Caraga	665	0	932	1	↓29
NCR	19	0	21	0	↓10

*From the period of January 1 to April 27, 2019

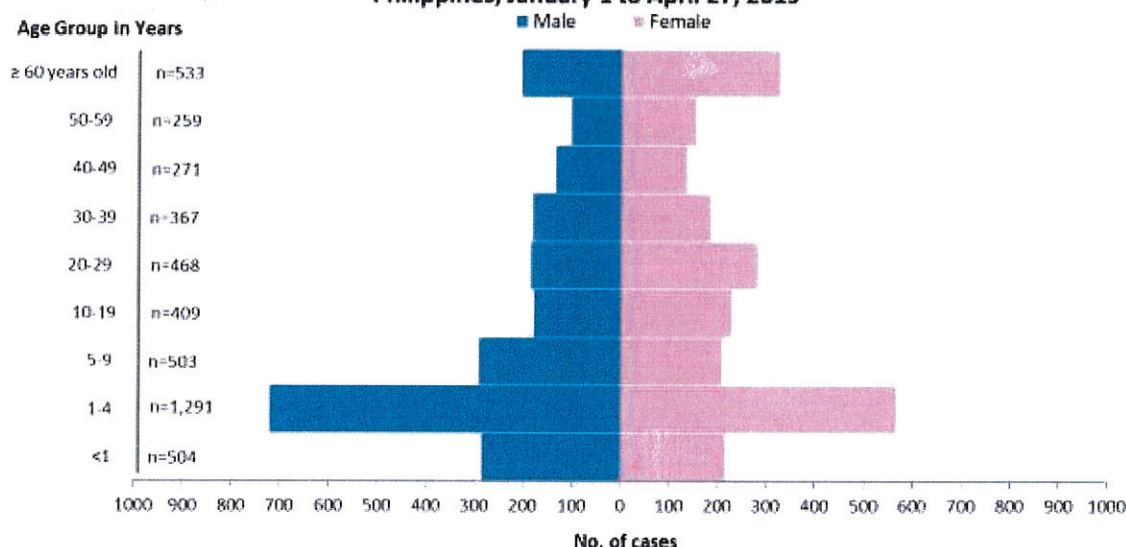
**From the period of January 1 to April 27, 2018



Profile of Cases

Almost equal distribution of reported ABD cases in males (2,284 or 50%) and females (2,322 or 50%) was noted. Age of cases ranged from less than 1 month to 102 years old (median age of 10 years). The most affected age group was 1 year to 4 years (1,291 or 28%) (Figure 2).

Figure 2. Acute Bloody Diarrhea Cases by Age Group and Sex (N=4,606)
Philippines, January 1 to April 27, 2019



Laboratory Results

A total of 3,187 (69%) samples were collected for laboratory testing (Figure 3). Of these, 2,701 (85%) yielded positive for different organisms. The frequently identified organism was *Entamoeba histolytica* (2,314 or 86%) (Table 3).

Figure 3. ABD Cases by Laboratory Result (N=4,606)
Philippines, January 1 – April 27, 2019

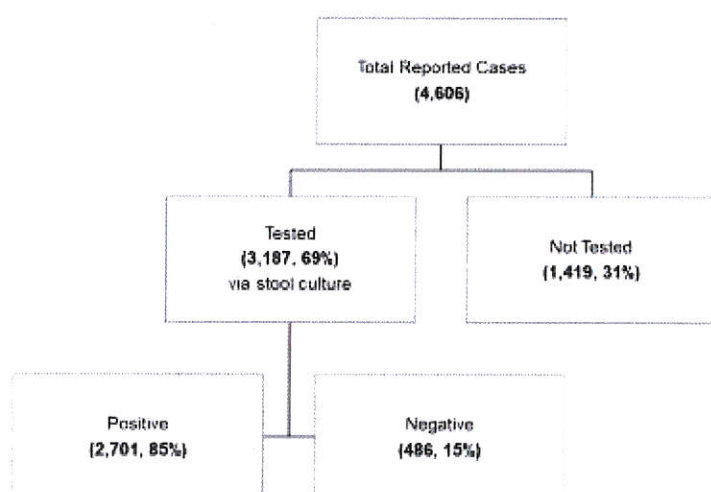


Table 3. Top 3 Organisms in ABD Cases
Philippines, January 1 – April 27, 2019

Organism	Cases
<i>Entamoeba histolytica</i>	2,314
<i>Shigella</i>	183
<i>Escherichia Coli</i>	64

Profile of Deaths

Five deaths (CFR=0.11%) out of the 4,606 reported acute bloody diarrhea cases were reported from Regions VII, IX, X and CAR. Age range from 3 years to 76 years old (median: 29 years).

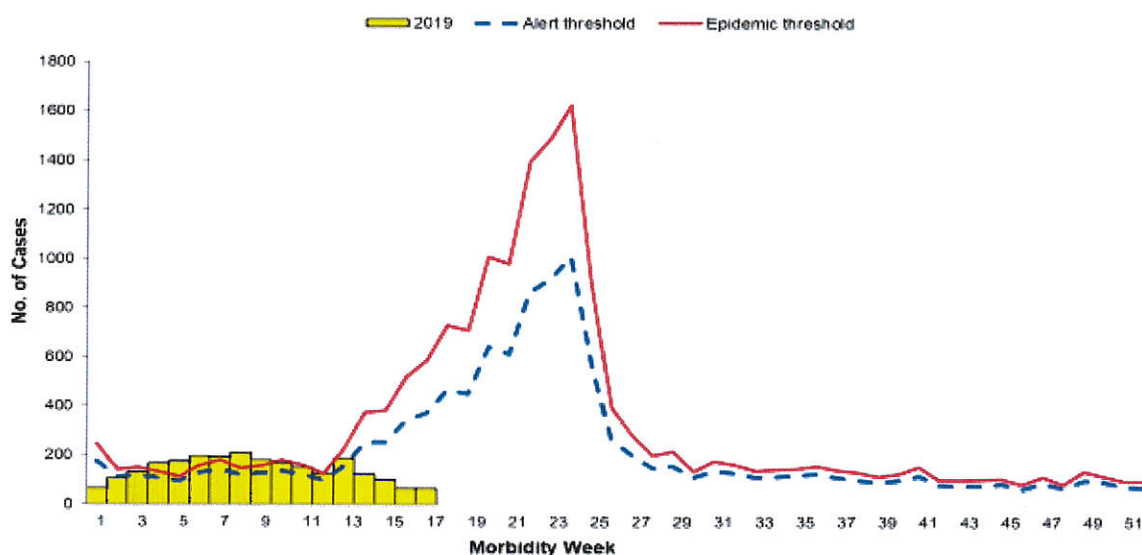


II. Cholera

Trend in the Philippines

A total of 2,365 reported cholera cases were reported nationwide from January 1 to April 27, 2019. The distribution of cases for 2019 compared to epidemic and alert thresholds is shown below (Figure 4).

Figure 4. Reported Cholera Cases by Morbidity Week (N=2,365)
Morbidity Weeks 1-17 (January 1- April 27, 2019) vs Epidemic and Alert Thresholds



Geographical Distribution

There was a 205% increase of reported cholera cases from 776 cases in 2018 to 2,365 cases in 2019. Regions VIII (1,726 or 73%) reported the highest number of cholera cases from January 1 – April 27, 2019 (Table 4).

Table 4. Reported Cholera Cases & Deaths by Region (N=2,365)
Philippines, 2019* vs 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	2,365	2	776	4	↑205
I	1	0	0	0	↑
II	0	0	0	0	-
III	0	0	0	0	-
IV-A	1	0	3	0	↓67
MiMaRoPa	0	0	0	0	-
V	158	2	289	4	↓45
VI	0	0	1	0	↓100
VII	0	0	2	0	↓100
VIII	1,726	0	0	0	↑
IX	0	0	0	0	-
X	9	0	106	0	↓92
XI	0	0	15	0	↓100
XII	0	0	0	0	-
ARMM	0	0	2	0	↓100
CAR	0	0	0	0	-
Caraga	468	0	358	0	↑31
NCR	2	0	0	0	↑

*From the period of January 1 to April 27, 2019

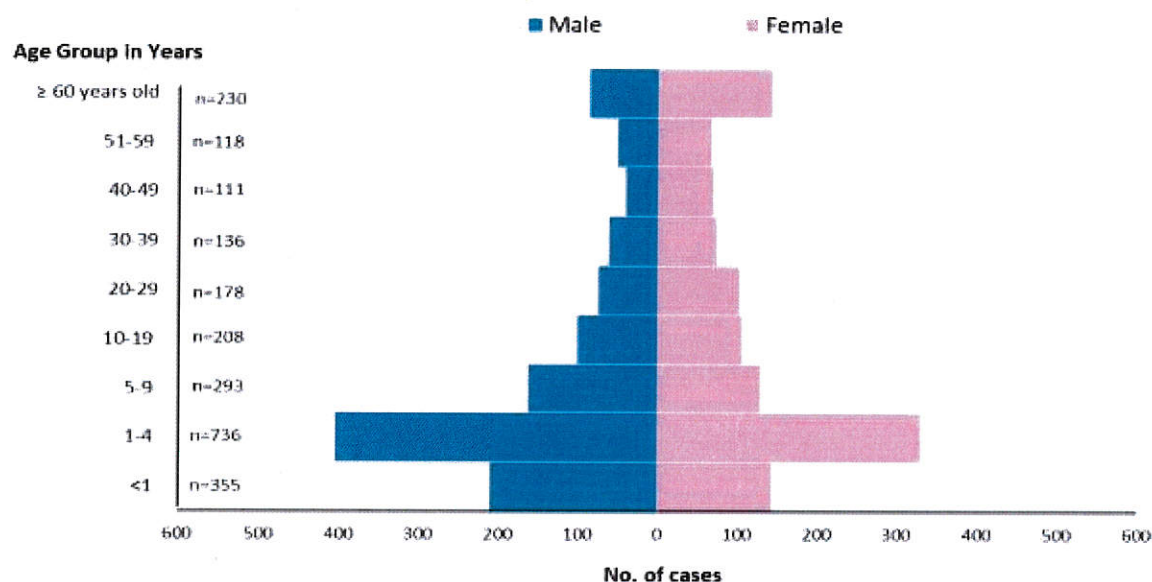
**From the period of January 1 to April 27, 2018



Profile of Cases

Almost equal distribution of reported cholera cases in males (1,194 or 50%) and females (1,171 or 50%) was noted. Age of suspect cases ranged from less than 1 month to 92 years old (median age of 6 years). The most affected age groups were 1 to 4 years (736 or 31%) followed by less than 1 year (355 or 15%) (Figure 5).

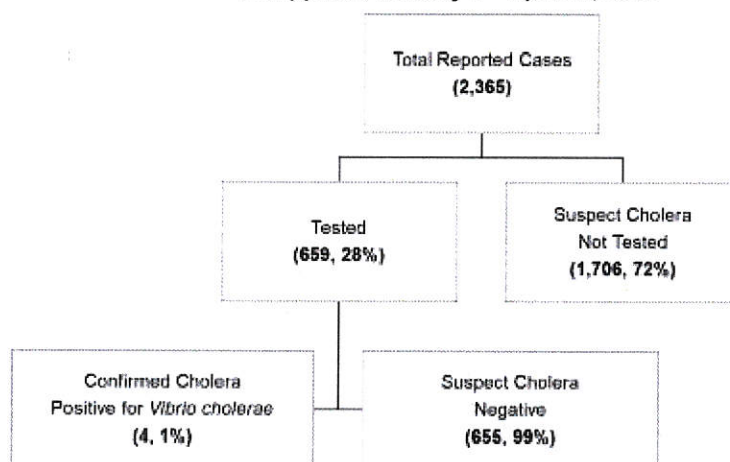
Figure 5. Reported Cholera Cases by Age Group and Sex (N=2,365)
Philippines, January 1 to April 27, 2019



Laboratory Results

A total of 659 (28%) samples were collected for laboratory testing (Figure 6). Of these, 4 (1%) yielded positive for *Vibrio cholerae*.

Figure 6. Cholera Cases by Laboratory Result (N=2,365)
Philippines, January 1 – April 27, 2019



Profile of Deaths

Two deaths (CFR=0.08%) out of the 2,365 reported cholera cases were reported from Region V (Masbate and Sorsogon). Both cases are female with the age of 24 and 56 years old.



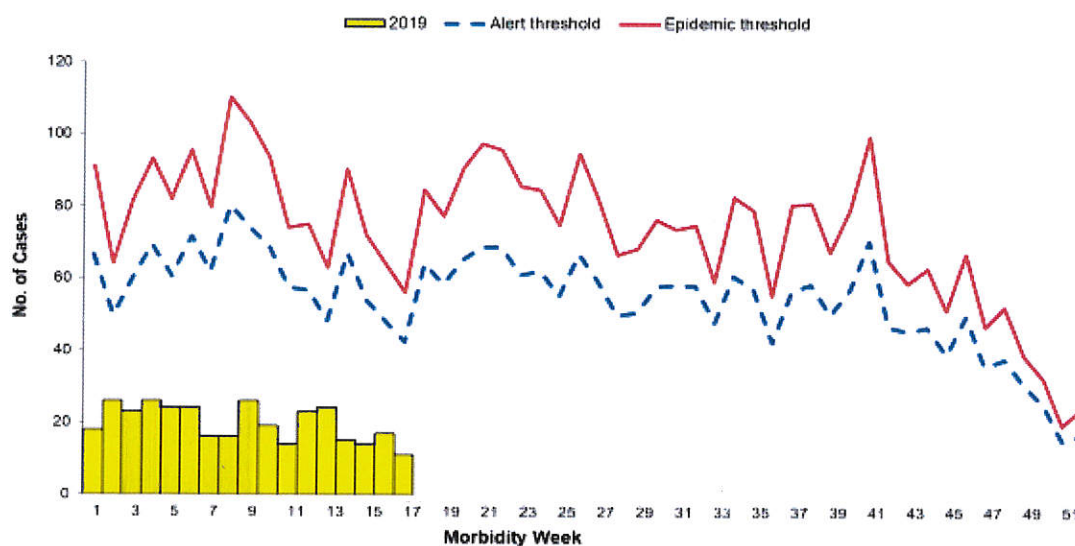
III. Hepatitis A

A. Reported Cases

Trend in the Philippines

A total of 336 reported acute viral hepatitis cases were reported nationwide from January 1 to April 27, 2019. The distribution of cases for 2019 compared to epidemic and alert thresholds is shown below (Figure 7).

Figure 7. Reported Acute Viral Hepatitis Cases by Morbidity Week (N=336)
Morbidity Weeks 1-17 (January 1- April 27, 2019) vs Epidemic and Alert Thresholds



Geographical Distribution

There was a 36% decrease of reported acute viral hepatitis cases from 522 cases in 2018 to 336 cases in 2019. Most of the reported cases were from the following regions: Region IX (60 or 18%), Region VI (49 or 15%) and Region X (48 or 14%) (Table 6).

Table 6. Reported Acute Viral Hepatitis Cases & Deaths by Region (N=336)
Philippines, 2019* vs 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	336	3	522	4	↓36
I	6	0	16	1	↓63
II	15	0	5	0	↑200
III	8	0	25	0	↓68
IV-A	36	1	45	0	↓20
MiMaRoPa	5	0	15	0	↓67
V	4	0	18	1	↓78
VI	49	0	61	0	↓20
VII	29	2	115	2	↓75
VIII	2	0	4	0	↓50
IX	60	0	17	0	↑253
X	48	0	82	0	↓41
XI	9	0	4	0	↑125
XII	6	0	9	0	↓33
ARMM	13	0	10	0	↑30
CAR	0	0	6	0	↓100
Caraga	8	0	33	0	↓76
NCR	38	0	57	0	↓33

*From the period of January 1 to April 27, 2019

**From the period of January 1 to April 27, 2018

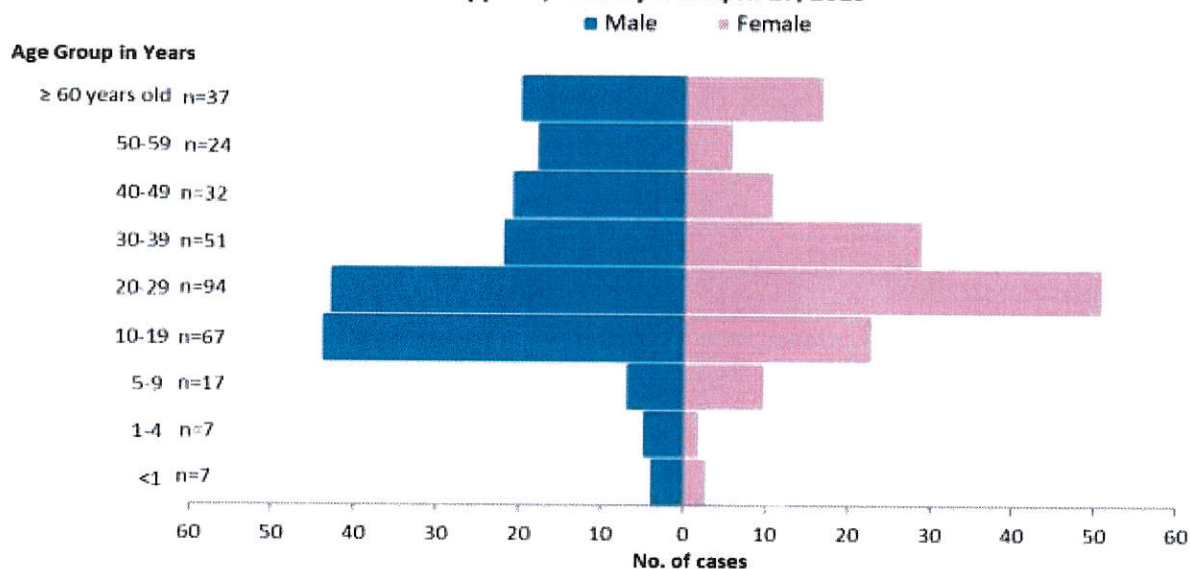


Profile of Cases

Age Group and Sex

Majority of the reported cases were male (184 or 55%). Age of cases ranged from less than 1 month to 92 years old (median age of 27 years). Most of the cases were 20 to 29 years old (94 or 28%) (Figure 8).

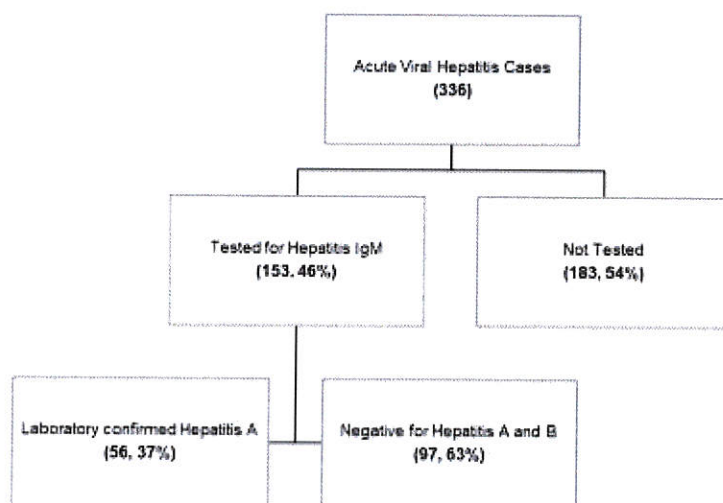
Figure 8. Acute Viral Hepatitis Cases by Age Group and Sex (N=336)
Philippines, January 1 to April 27, 2019



Laboratory Status

A total of 153 (46%) reported cases were tested for Hepatitis A IgM. Among those tested, 56 (37%) were positive for Hepatitis A (Figure 9).

Figure 9. Acute Viral Hepatitis Cases by Case Classification (N=336)
Philippines, January 1 – April 27, 2019



Profile of Deaths

Three deaths (CFR=0.89%) out of the 336 reported acute viral hepatitis cases were reported from Regions IV-A (1 case in Cavite) and Region VII (2 cases in Cebu).



B. Confirmed Cases

Geographical Distribution

There was a 38% decrease of confirmed Hepatitis A cases from 91 cases in 2018 to 56 cases in 2019 for the same period (January 1 – April 27, 2019). Region X reported the highest number of Hepatitis A cases (14 or 25%) followed by Region VII (13 or 23%) and Region IX (12 or 21%) as shown below (Table 7).

Table 7. Confirmed Hepatitis A Cases & Deaths by Region (n=56)
Philippines, 2019* vs 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	56	1	91	0	↓38
I	1	0	0	0	↑
II	0	0	2	0	↓100
III	1	0	1	0	0
IV-A	5	0	8	0	↓38
MiMaRoPa	0	0	0	0	0
V	1	0	3	0	↓67
VI	5	0	10	0	↓50
VII	13	1	39	0	↓67
VIII	0	0	0	0	0
IX	12	0	5	0	↑140
X	14	0	7	0	↑100
XI	0	0	1	0	↓100
XII	1	0	0	0	↑
ARMM	1	0	4	0	↓75
CAR	0	0	1	0	↓100
Caraga	1	0	3	0	↓67
NCR	1	0	7	0	↓86

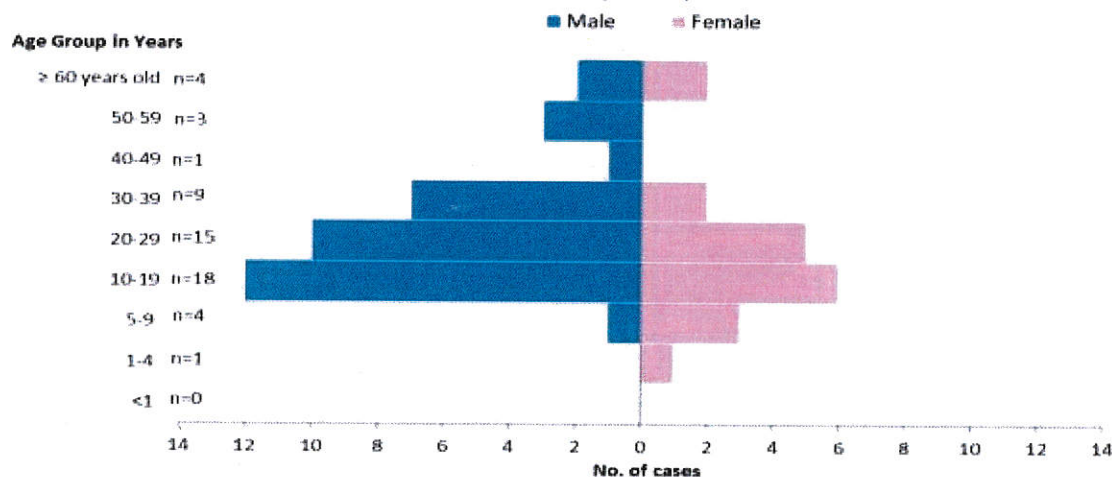
*From the period of January 1 to April 27, 2019

**From the period of January 1 to April 27, 2018

Profile of Cases

Majority of the cases were male (37 or 66%). Age of cases ranged from 4 to 80 years old (median age of 23 years). The most affected age group was 10 to 19 years (18 or 32%) (Figure 10).

Figure 10. Hepatitis A Cases by Age Group and Sex (n=56)
Philippines, January 1 to April 27, 2019



Profile of Deaths

One death (CFR=1.79%) out of the 56 confirmed hepatitis A cases. The case is 70 years old, male from Region VII (Cebu).



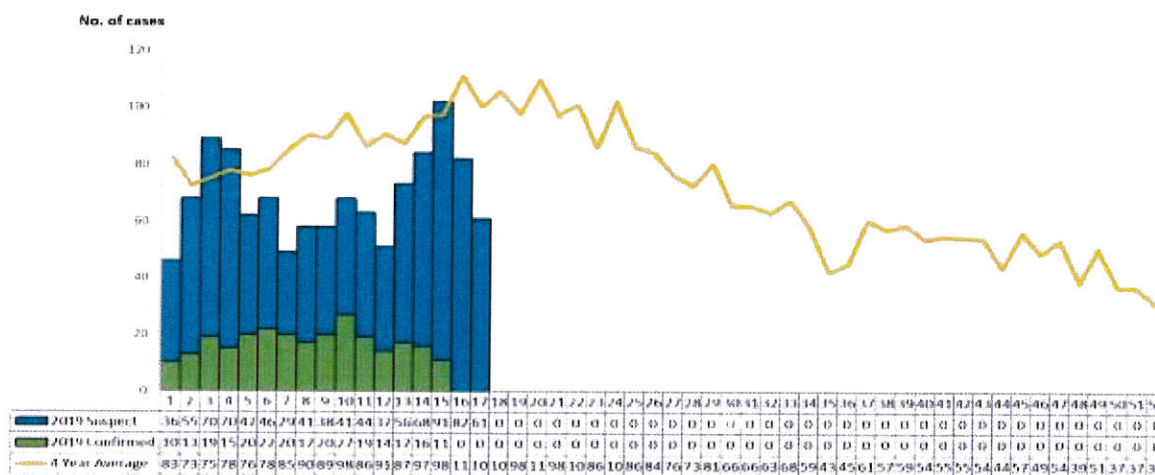
IV. Rotavirus

A. Reported Cases

Trend in the Philippines

A total of 1,167 reported rotavirus cases were reported nationwide from January 1 to April 27, 2019. The distribution of cases for 2019 compared to the 4-year average of cases from 2015-2018 is shown below (Figure 11).

Figure 11. Rotavirus Cases by Morbidity Week and Case Classification (N=1,167)
Philippines, January 1- April 27, 2019 vs 4 Year Average Data



*same time period

Geographical Distribution

There was a 15% increase of reported Rotavirus cases from 1,014 cases in 2018 to 1,167 cases in 2019. Most of the reported cases were from the following regions: Region I (353 or 30%), Region V (272 or 23%), Region VIII (131 or 11%), ARMM (103 or 9%) and Region XII (90 or 8%) (Table 8).

Table 8. Reported Rotavirus Cases & Deaths by Region (N=1,167)
Philippines, 2019* vs 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	1,167	8	1,014	5	↑15
I***	353	3	244	1	↑45
II	0	0	0	0	-
III	1	0	2	0	↓50
IV-A	0	0	5	0	↓100
MiMaRoPa***	51	0	40	0	↑28
V***	272	1	147	0	↑85
VI***	66	0	93	0	-29
VII	1	0	0	0	↑
VIII	131	0	0	0	↑
IX	0	0	0	0	-
X	1	0	1	0	0
XI	0	0	0	0	-
XII***	90	2	193	2	↓53
ARMM	103	2	174	2	↓41
CAR	0	0	0	0	-
Caraga***	68	0	23	0	↑196
NCR***	30	0	92	0	↓67

*From the period of January 1 – April 27, 2019

**From the period of January 1 – April 27, 2018

***Region with selected rotavirus sentinel sites

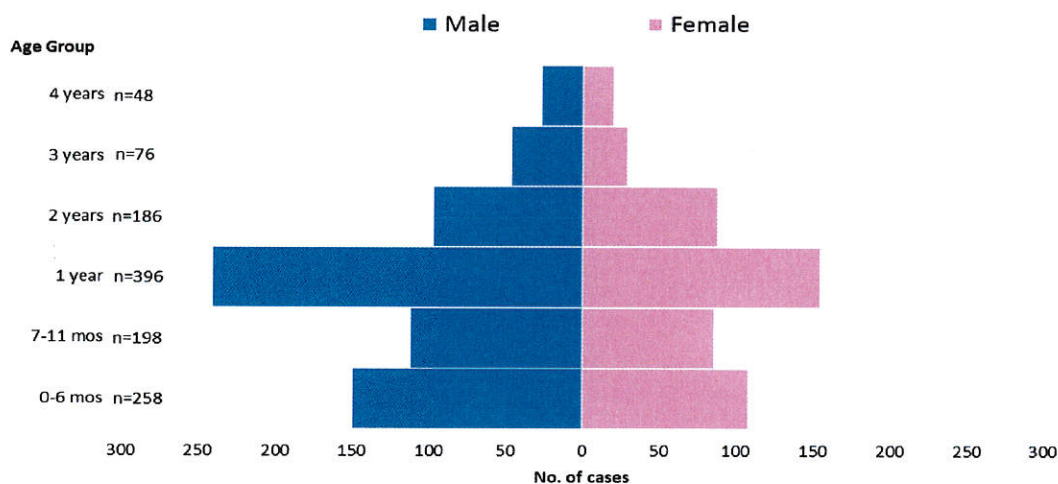


Profile of Cases

Age Group and Sex

Majority of the reported cases were male (389 or 59%). Age of cases ranged from less than 1 month to 4 years old (median age of 1 year). Most of the cases were 1 year old (229 or 35%) (Figure 12).

Figure 12. Reported Rotavirus Cases by Age Group and Sex (N=1,167)
Philippines, January 1-April 27, 2019



Note: 5 cases with unspecified age are not reflected in the graph

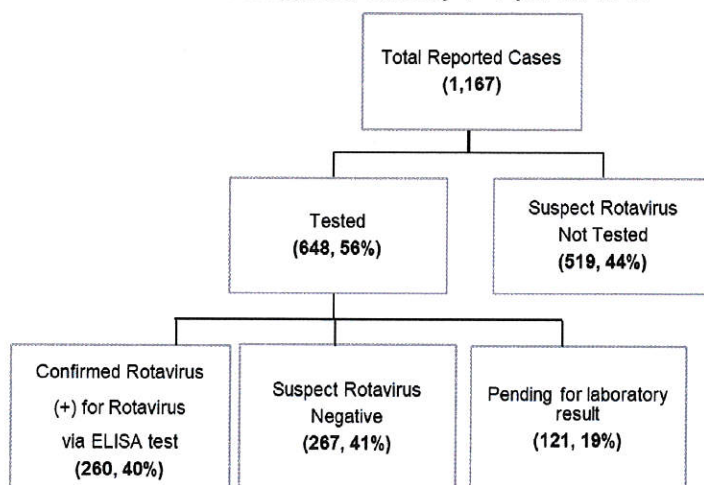
Vaccination Status

Majority of reported rotavirus cases were not vaccinated with rotavirus vaccine (1,143 or 98%). Meanwhile, there were vaccinated cases as follows: 1 dose (4 or 0.3%), 2 doses or more doses (9 or 0.8%) and vaccinated with unknown number of dose (11 or 0.9%).

Laboratory Results

A total of 648 (56%) samples were collected for laboratory testing. Of these, 260 (40%) were laboratory confirmed for rotavirus and 267 (41%) were negative (Figure 13).

Figure 13. Reported Rotavirus Cases by Laboratory Status (N=1,167)
Philippines, January 1 – April 27, 2019



Profile of Deaths

Eight deaths (CFR=1%) out of the 1,167 reported rotavirus cases were reported from Regions I (3 cases), V (1 case), XII (2 cases) and ARMM (2 cases).



B. Confirmed Cases

Geographical Distribution

There was a 22% decrease of confirmed Rotavirus cases from 334 cases in 2018 to 260 cases in 2019. Most of the reported cases were from the following regions: Region I (172 or 66%), Region V (23 or 9%) and Region VI (22 or 8%) (Table 9).

Table 9. Confirmed Rotavirus Cases & Deaths by Region (n=260)
 Philippines, 2019* vs 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	260	2	334	0	↓22
I***	172	2	108	0	↑59
II	0	0	0	0	-
III	1	0	2	0	↓50
IV-A	0	0	3	0	↓100
MiMaRoPa***	0	0	2	0	↓100
V***	23	0	42	0	↓45
VI***	22	0	46	0	↓52
VII	1	0	0	0	↑
VIII	0	0	0	0	-
IX	0	0	0	0	-
X	1	0	0	0	↑
XI	0	0	0	0	-
XII***	7	0	44	0	↓84
ARMM	9	0	36	0	↓75
CAR	0	0	0	0	-
Caraga***	15	0	9	0	↑67
NCR***	9	0	42	0	↓79

*From the period of January 1 – April 27, 2019

**From the period of January 1 – April 27, 2018

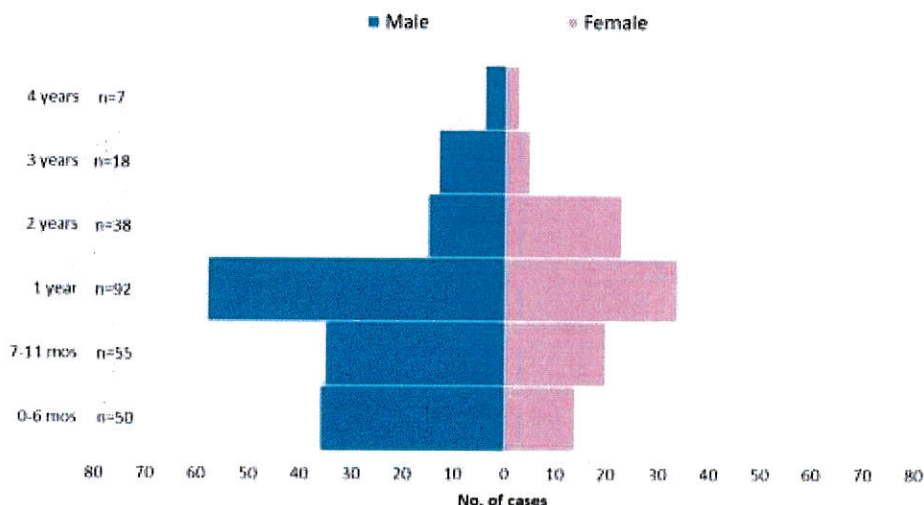
***Region with selected rotavirus sentinel sites

Profile of Cases

Age Group and Sex

Majority of the confirmed cases were male (161 or 62%). Age of cases ranged from less than 1 month to 4 years old (median age of 1 year). Most of the cases were 1 year old (92 or 35%) (Figure 14).

Figure 14. Confirmed Rotavirus Cases by Age group, Sex and Case Classification (n=260)
 Philippines, January 1-April 27, 2019





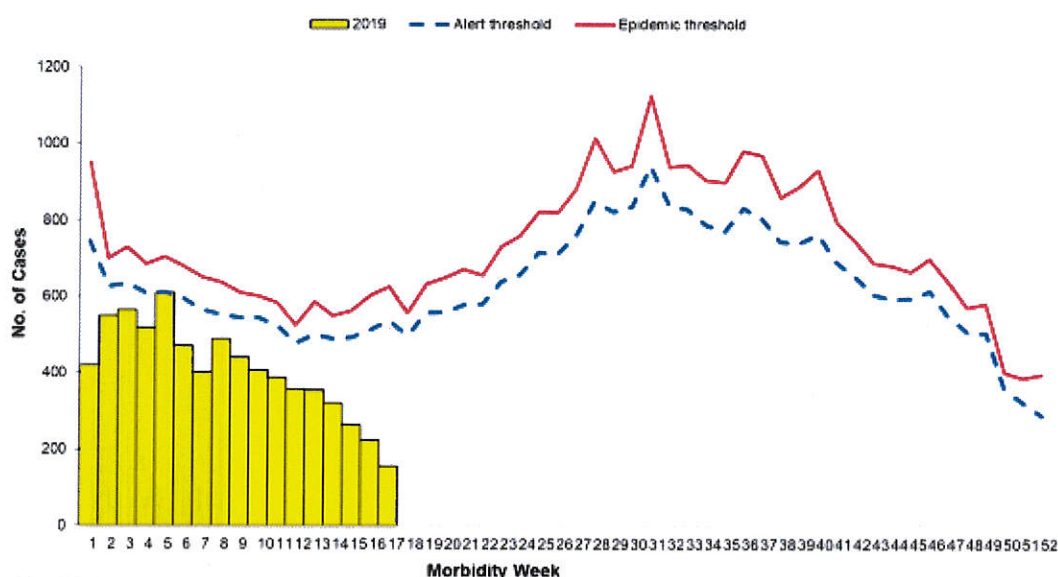
V. Typhoid Fever

A. Reported Cases

Trend in the Philippines

A total of 6,923 reported typhoid fever cases were reported nationwide from January 1 to April 27, 2019. The distribution of cases for 2019 compared to epidemic and alert thresholds is shown below (Figure 15).

Figure 15. Reported Typhoid Cases by Morbidity Week as of January 1-April 27, 2019 (N=6,923)



Geographical Distribution

There was a 4% increase of reported typhoid fever cases from 6,638 cases in 2018 to 6,923 cases in 2019. Most of the reported cases were from the following regions: Region X (1,102 or 16%), Region XII (881 or 13%), CAR (812 or 12%), Region VI (799 or 12%) and Region IV-A (516 or 7%) (Table 10).

Table 10. Reported Typhoid Fever Cases & Deaths by Region (N=6,923) Philippines, 2019* vs 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	6,923	14	6,638	13	↑4
I	189	0	234	0	↓19
II	303	1	139	0	↑118
III	197	0	154	0	↑28
IV-A	516	1	636	0	↓19
MiMaRoPa	136	0	84	0	↑62
V	82	0	122	2	↓33
VI	799	2	675	2	↑18
VII	483	2	353	2	↑37
VIII	173	1	354	1	↓51
IX	397	2	480	1	↓17
X	1,102	0	1,262	0	↓13
XI	73	0	65	0	↑12
XII	881	1	597	2	↑48
ARMM	487	4	582	1	↓16
CAR	812	0	402	0	↑102
Caraga	136	0	344	0	↓60
NCR	157	0	155	2	↑1

*From the period of January 1 – April 27, 2019

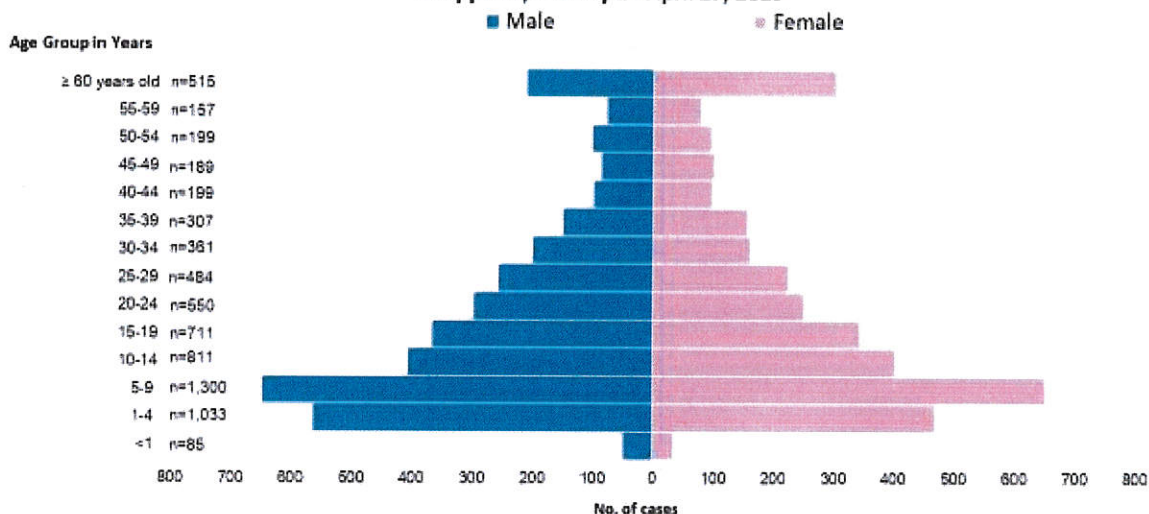
**From the period of January 1 – April 27, 2018



Profile of Cases

Majority of the reported cases were male (3,534 or 51%). Age of cases ranged from less than 1 month to 98 years old (median age of 16 years). The most affected age group was 5 to 9 years old (1,300 or 19%) (Figure 16).

Figure 16. Reported Typhoid Fever Cases by Age Group and Sex (N=6,923)
Philippines, January 1 - April 27, 2019

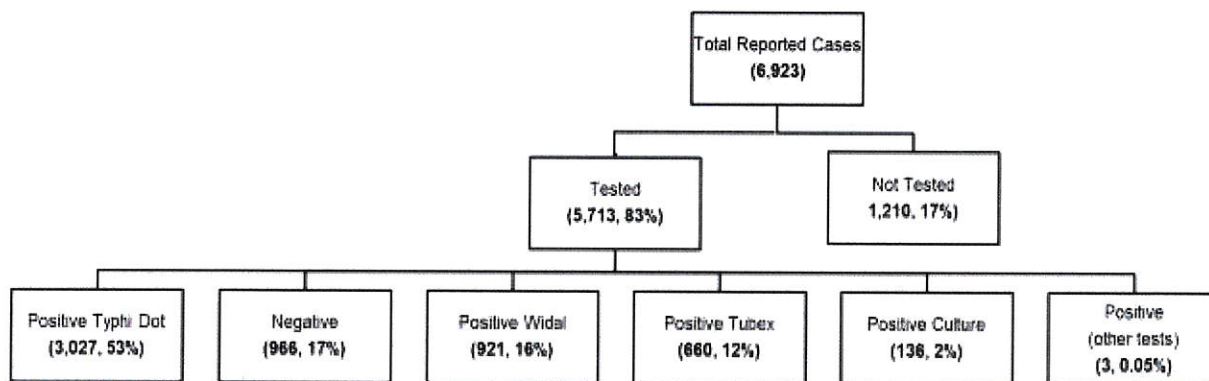


Note: 22 cases with unspecified age are not reflected in the graph

Laboratory Results

A total of 5,713 (83%) specimens were referred for testing. Laboratory status of reported typhoid fever cases is shown below (Figure 17).

Figure 17. Reported Typhoid Fever Cases by Laboratory Status (N=6,923)
Philippines, January 1 – April 27, 2019



Profile of Deaths

Fourteen deaths (CFR=0.2%) out of the 6,923 reported typhoid fever cases were reported from Regions II, IV-A, VI, VII, VIII, IX, XII and ARMM. Age range from 7 days to 73 years old (median: 40 years).



B. Confirmed Cases
Geographical Distribution

There was a 60% increase of confirmed typhoid fever cases from 85 cases in 2018 to 136 cases in 2019. Most of the reported cases were from the following regions: Region VIII (27 or 20%), Region IX (27 or 20%), Region II (19 or 14%), Region VII (18, 13%) and ARMM (13 or 10%) (Table 11).

Table 11. Confirmed Typhoid Fever Cases & Deaths by Region (n=136)
Philippines, 2019* vs 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	136	0	85	3	↑60
I	0	0	5	0	↓100
II	19	0	1	0	↑1,800
III	0	0	2	0	↓100
IV-A	3	0	4	0	↓25
MiMaRoPa	2	0	3	0	↓33
V	0	0	2	0	↓100
VI	5	0	6	0	↓17
VII	18	0	20	1	↓10
VIII	27	0	20	1	↑35
IX	27	0	1	0	↑2,600
X	2	0	3	0	↓33
XI	1	0	2	0	↓50
XII	12	0	1	0	↑1,100
ARMM	13	0	5	0	↑160
CAR	2	0	0	0	↑
Caraga	1	0	0	0	↑
NCR	4	0	10	1	↓60

*From the period of January 1 – April 27, 2019

**From the period of January 1 – April 27, 2018

Profile of Cases

Age Group and Sex

Majority of the confirmed cases were female (74 or 54%). Age of cases ranged from 7 months to 85 years old (median age of 16 years). Most affected age group is 15 to 19 years old (24 or 18%) (Figure 18).

Figure 18. Confirmed Typhoid Fever Cases by Age Group and Sex (N=136)
Philippines, January 1 - April 27, 2019

