



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 March 31, 2018. (Table 1)

Table 1. Food & Waterborne Diseases
Philippines, 2018* vs 2017

FOOD/WATER-BORNE DISEASES	2018			2017	% Difference *2018 vs 2017
	Cases	Deaths	CFR (%)	Cases	
Acute Bloody Diarrhea	4,357	6	0.14	5,481	↓ -21
Confirmed Cholera	3	0	0.00	14	↓ -79
Confirmed Rotavirus	180	0	0.00	640	↓ -72
Hepatitis A	53	0	0.00	142	↓ -63
Typhoid Fever	4,136	7	0.17	5,889	↓ -30

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 Disease endemic in the area: A person aged 5 years or more with acute watery diarrhea with or without vomiting, OR 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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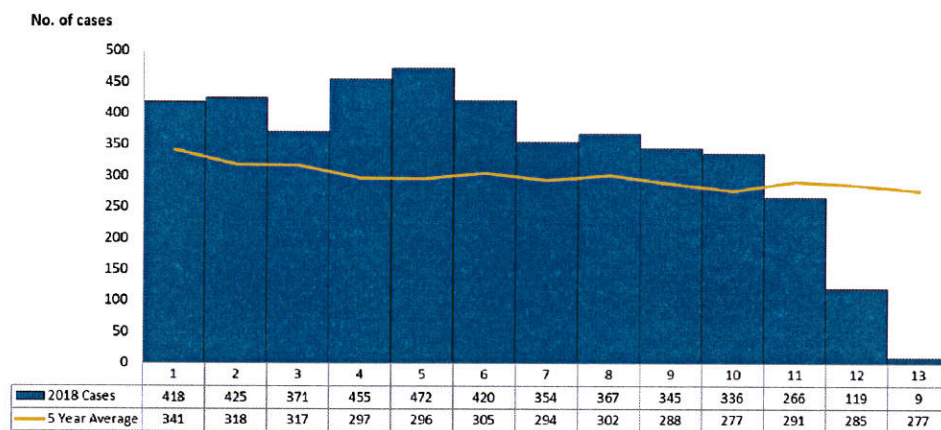


I. Acute Bloody Diarrhea (ABD)

Trend in the Philippines

A total of 4,357 acute bloody diarrhea cases were reported nationwide from January 1 to March 31, 2018. The distribution of cases for 2018 compared to the 5-year average of cases from 2013-2017 is shown below (Fig.1).

Figure 1. Acute Bloody Diarrhea Cases by Morbidity Week (N=4,357)
Philippines, January to March 2018 vs 5 Year Average Data



*same time period

Geographical Distribution

There was a 21% decrease of reported ABD cases from 5,481 cases in 2017 to 4,357 cases in 2018. Most of the reported cases were from the following regions: Region VII (1,757, 40%), Region IX (692, 16%), Region X (458, 11%), CARAGA (411, 9%), and CAR (315, 7%) (Table 2).

Table 2. Acute Bloody Diarrhea Cases & Deaths
Philippines, 2017 vs 2018*

Region	2017		2018*		Percent Change
	Cases	Deaths	Cases	Deaths	
Philippines	5,481	27	4,357	6	↓-21
I	12	0	7	0	↓-42
II	296	0	77	0	↓-74
III	88	0	127	0	↑ 44
IV-A	129	2	194	0	↑ 50
MIMAROPA	41	0	21	0	↓-49
V	39	0	10	0	↓-74
VI	27	0	11	0	↓-59
VII	2226	20	1757	6	↓-21
VIII	240	1	113	0	↓-53
IX	418	2	692	0	↑ 66
X	301	0	458	0	↑ 52
XI	108	2	41	0	↓-62
XII	73	0	61	0	↓-16
ARMM	37	0	48	0	↑ 30
CAR	442	0	315	0	↓-29
CARAGA	963	0	411	0	↓-57
NCR	41	0	14	0	↓-66

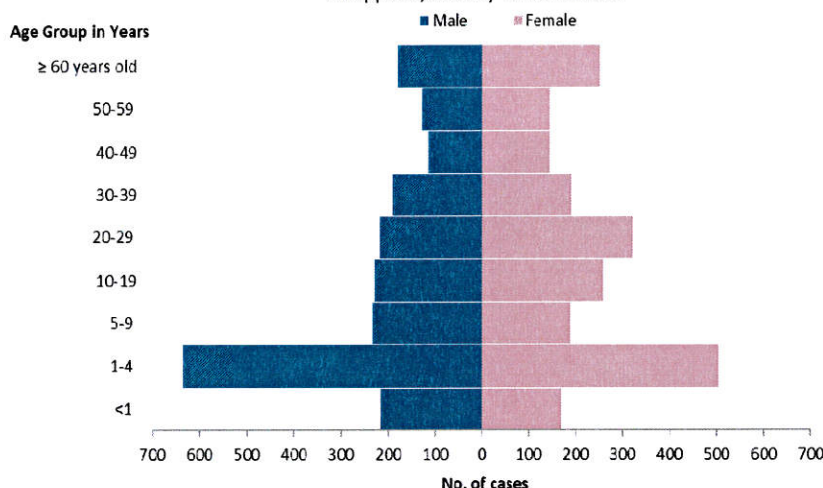
*From the period of January 1 to March 31, 2018



Profile of Cases

There was an equal distribution of males and females among reported ABD cases. Age of cases ranged from less than 1 month to 94 years old (median age of 14 years). The most affected age group were from 1 year to 4 years (1,144, 26%) (Fig.2).

Figure 2. Acute Bloody Diarrhea Cases by Age Group and Sex (N=4,357)
Philippines, January to March 2018



Laboratory Results

A total of 2,445 (56%) samples were collected for laboratory testing (Fig. 3). Of these, 1,947 (80%) were tested positive with different organisms (Fig. 3). The frequently identified organism was *Entamoeba histolytica* (89%) (Table 3).

Figure 3. ABD Cases by Laboratory Status (N=4,357)
Philippines, January to March 2018

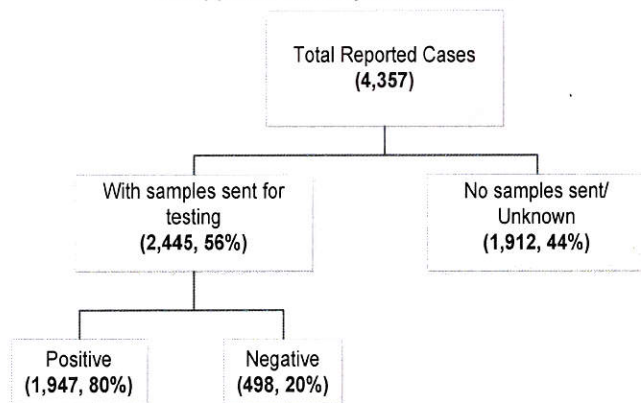


Table 3. Top 5 Organisms in ABD Cases*
Philippines, January to March 2018

Organism	Cases
<i>Entamoeba histolytica</i>	1729
<i>Trophozoites</i>	82
<i>Escherichia coli</i>	68
<i>Amoeba</i>	20
<i>Shigella</i>	5

*multiple results

Profile of Deaths

There were six (6) deaths (CFR=0.14%) out of the 4,357 reported ABD cases. Age of deaths ranged from 1 to 64 years old (median age of 29 years). Age group of these deaths were: 1 to 4 years (2, 33%), 5 to 9 years (2, 33%), 50 to 59 years (1, 17%) and 60 years and above (1, 17%).

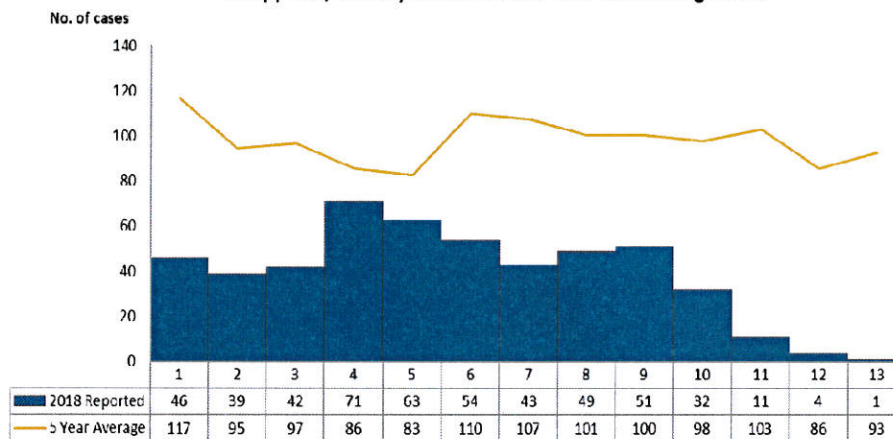


II. Cholera

Trend in the Philippines

A total of 506 reported cholera cases were reported nationwide from January 1 to March 31, 2018. The distribution of cases for 2018 compared to the 5-year average of cases from 2013-2017 is shown below (Fig.4).

Figure 4. Reported Cholera Cases by Morbidity Week (N=506)
Philippines, January to March 2018 vs 5 Year Average Data



*same time period

Geographical Distribution

There was a 50% decrease of reported cholera cases from 1,009 cases in 2017 to 506 cases in 2018. Most of the reported cases were from the following regions: CARAGA (219, 43%), Region V (210, 42%), Region X (57, 11%) and Region XI (14, 3%). One confirmed cholera case was reported each from regions of VI, VII and XI (Table 4).

Table 4. Reported Cholera Cases & Deaths by Region
Philippines, 2017 vs 2018*

Region	2017		2018*		Percent Change
	Cases	Deaths	Cases	Deaths	
Philippines	1,009	11	506	3	↓-50
I	1	0	0	0	↓-100
II	0	0	0	0	--
III	0	0	0	0	--
IV-A	38	0	3	0	↓-92
MIMAROPA	7	4	0	0	↓-100
V	304	3	210	3	↓-31
VI	1	0	1	0	→ 0
VII	250	1	1	0	↓-100
VIII	10	1	0	0	↓-100
IX	0	0	0	0	--
X	151	2	57	0	↓-62
XI	2	0	14	0	↑600
XII	3	0	0	0	↓-100
ARMM	0	0	1	0	--
CAR	0	0	0	0	--
CARAGA	241	0	219	0	↓-9
NCR	1	0	0	0	↓-100

*From the period of January 1 to March 31, 2018

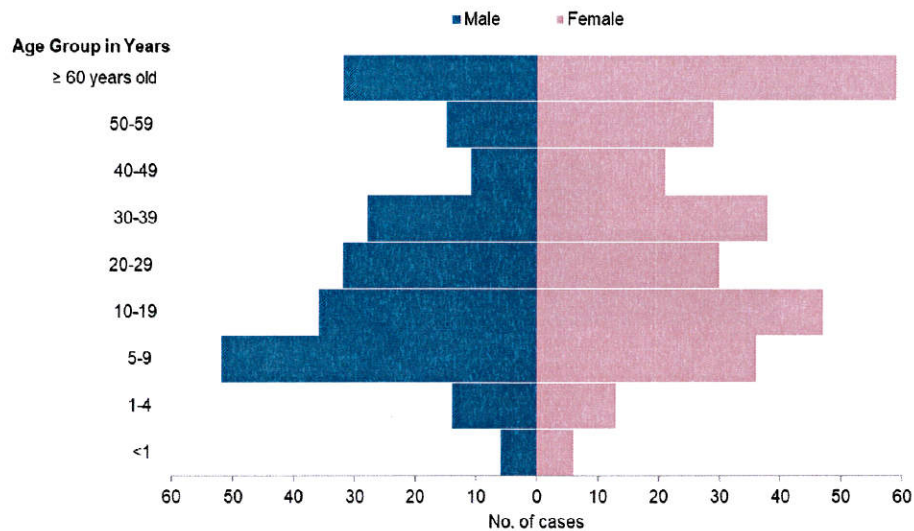
*Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2017 data reflects partial data only of all regions. A PDF file of this report is available at www.doh.gov.ph/statistics.



Profile of Cases

Majority of the suspect cases were female (280, 55%). Age of suspect cases ranged from 1 month to 95 years old (median age of 26 years). The most affected age group was from 10 to 20 years (92, 18%) (Fig. 5). Confirmed cases ranged from 16 to 73 years old (median age of 17 years). Two of the 3 confirmed cases were female (67%). The most affected age group among confirmed cases were from 10 to 20 years (2, 67%).

Figure 5. Reported Cholera Cases by Age Group, and Sex (N=506)
Philippines, January to March 2018



Laboratory Results

A total of 154 (30%) samples were referred for testing (Fig. 6). Of these, 151 (98%) were negative and 3 (2%) were laboratory confirmed for *Vibrio cholerae* (one *V. cholerae*, one *V. cholera* Ogawa, one *V. cholera* 0139). (Table 5)

Figure 6. Reported Cholera Cases by Laboratory Status (N=506)
Philippines, January to March 2018

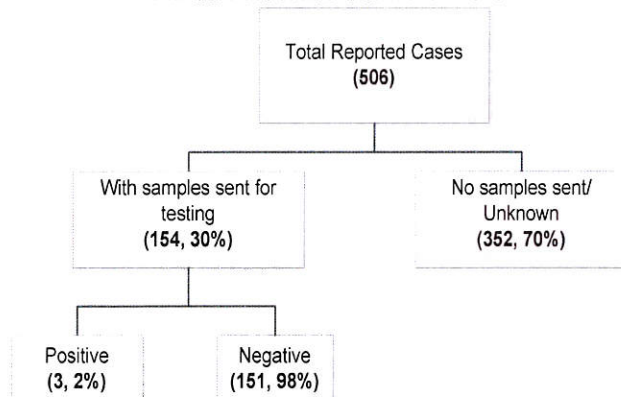


Table 5. Organisms in Cholera cases (n=3)
Philippines, January to March 2018

Organism	Cases	%
<i>Vibrio Cholerae</i>	1	33
<i>Vibrio Cholerae</i> Ogawa	1	33
<i>Vibrio Cholerae</i> 0139	1	33
Total	3	100

Profile of Deaths

There were three (3) deaths (CFR=0.59%) out of the 506 reported cholera cases. Ages of deaths ranged from 8 to 58 years old (median age of 20 years). Age group of these deaths were: 5 to 9 years (1, 33%), 10 to 20 years (1, 33%) and 50 to 59 years (1, 33%). There were no reported deaths among confirmed cases.

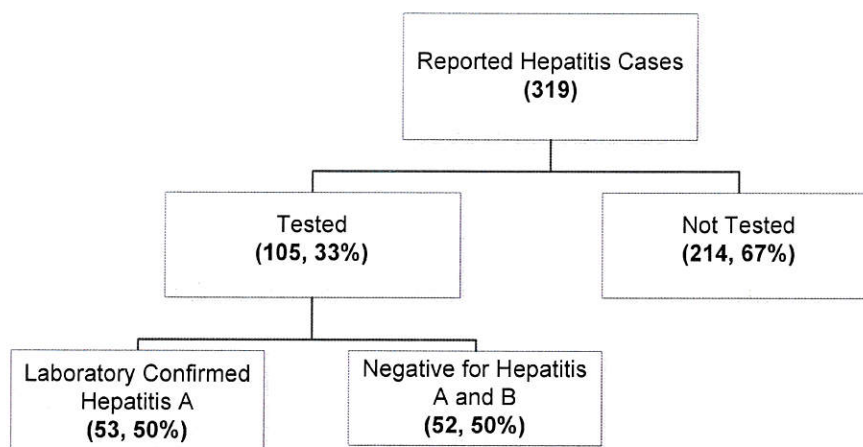


III. Hepatitis A

Case Classification

Among the 319 reported cases of Acute Viral Hepatitis in the Philippines from January to March 2018, 105 (33%) were tested for Hepatitis A IgM. Among those tested, 53 (50%) were positive for Hepatitis A (Fig. 7).

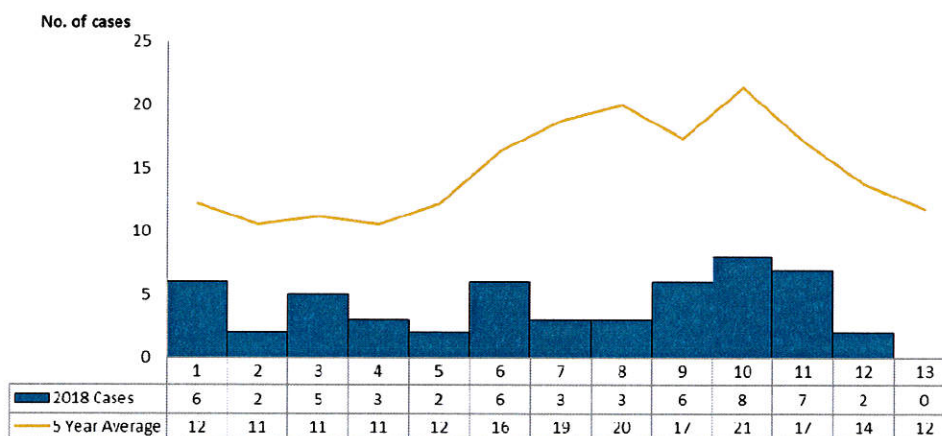
Figure 7. Reported Hepatitis Cases by Case Classification (N=319)
Philippines, January to March 2018



Trend in the Philippines

A total of 53 confirmed Hepatitis A cases were reported nationwide from January 1 to March 31, 2018. The distribution of cases for 2018 compared to the 5-year average of cases from 2013-2017 is shown below (Fig. 8).

Figure 8. Hepatitis A Cases by Morbidity Week (n=53)
Philippines, January to March 2018 vs 5 Year Average Data



*same time period

Geographical Distribution

There was a 63% decrease of confirmed Hepatitis A cases from 142 cases in 2017 to 53 cases in 2018. Most of the confirmed cases were from the following regions: Region VII (23, 43%), Region X (7, 13%), and Regions VI and NCR (5, 9%) each (Table 6). There were no reported deaths among confirmed cases.



**Table 6. Hepatitis A Cases & Deaths by Region
 Philippines, 2017 vs 2018***

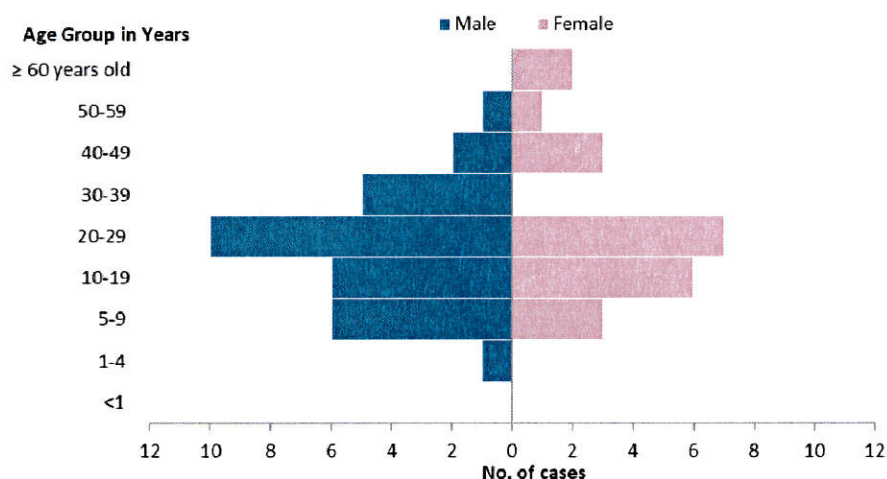
Region	2017		2018*		Percent Change
	Cases	Deaths	Cases	Deaths	
Philippines	142	0	53	0	↓-63
I	7	0	0	0	↓-100
II	1	0	0	0	↓-100
III	7	0	1	0	↓-86
IV-A	7	0	3	0	↓-57
MIMAROPA	0	0	0	0	--
V	5	0	2	0	↓-60
VI	21	0	5	0	↓-76
VII	25	0	23	0	↓-8
VIII	3	0	0	0	↓-100
IX	9	0	3	0	↓-67
X	19	0	7	0	↓-63
XI	1	0	1	0	→0
XII	3	0	0	0	↓-100
ARMM	8	0	2	0	↓-75
CAR	3	0	1	0	↓-67
CARAGA	6	0	0	0	↓-100
NCR	17	0	5	0	↓-71

*From the period of January 1 to March 31, 2018

Profile of Cases

Majority of the confirmed cases were male (31, 58%). Age of confirmed cases ranged from 3 to 78 years old (median age of 23 years). The most affected age group were from 21 to 30 years (18, 34%) (Fig. 9).

**Figure 9. Hepatitis A Cases by Age Group and Sex (n=53)
 Philippines, January to March 2018**





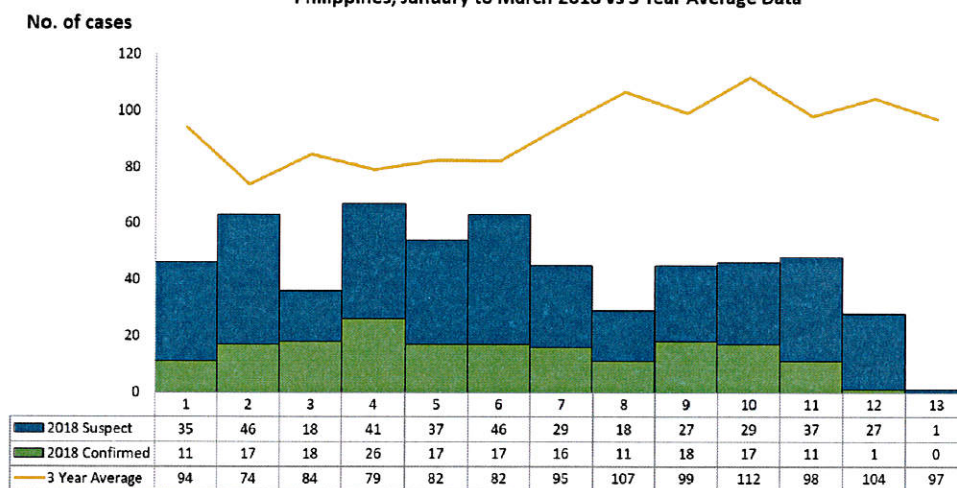
IV. Rotavirus

A. Reported Cases

Trend in the Philippines

A total of 571 reported rotavirus cases were reported nationwide from January 1 to March 31, 2018. The distribution of cases for 2018 compared to the 5-year average of cases from 2015-2017 is shown below (Fig. 10).

Figure 10. Rotavirus Cases by Morbidity Week and Case Classification (N=571)
Philippines, January to March 2018 vs 3 Year Average Data



*same time period

Geographical Distribution

There was a 59% decrease of reported Rotavirus cases from 1,393 cases in 2017 to 571 cases in 2018. Most of the reported cases were from the following regions: Region I (144, 25%), Region XII (121, 21%), Region V (72, 13%), ARMM and NCR (68, 12%) each (Table 7).

Table 7. Reported Rotavirus Cases & Deaths by Region
Philippines, 2017 vs 2018*

Region	2017		2018*		Percent Change
	Cases	Deaths	Cases	Deaths	
Philippines	1,393	11	571	1	↓-59
I	417	3	144	1	↓-65
II	0	0	1	0	--
III	1	0	0	0	↓-100
IV-A	9	0	4	0	↓-56
MIMAROPA	80	1	23	0	↓-71
V	40	0	72	0	↑ 80
VI	187	3	52	0	↓-72
VII	1	0	0	0	↓-100
VIII	0	0	0	0	--
IX	0	0	0	0	--
X	0	0	1	0	--
XI	0	0	0	0	--
XII	191	1	121	0	↓-37
ARMM	207	3	68	0	↓-67
CAR	0	0	0	0	--
CARAGA	123	0	17	0	↓-86
NCR	137	0	68	0	↓-50

*From the period of January 1 to March 31, 2018

*Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2017 data reflects partial data only of all regions. A PDF file of this report is available at www.doh.gov.ph/statistics.

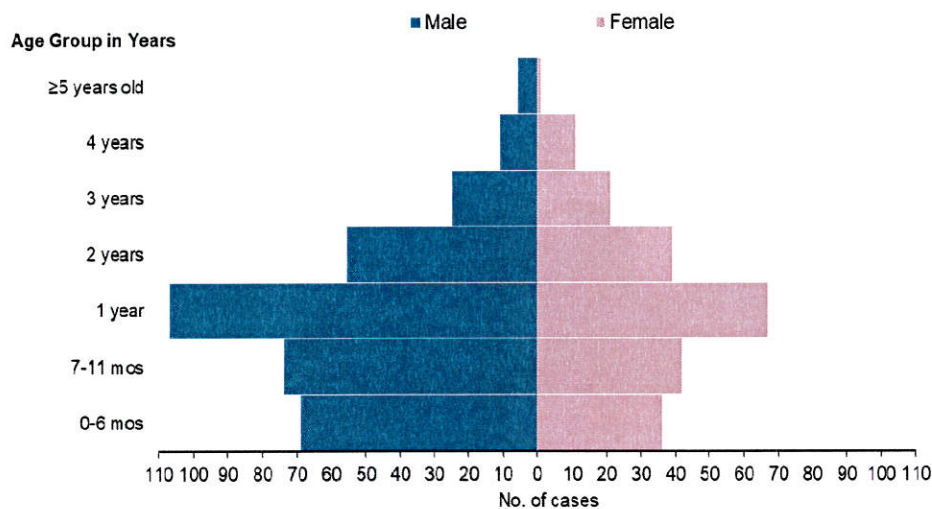


Profile of Cases

Age Group and Sex

Majority of the reported cases were female (352, 62%). Age of cases ranged from less than 1 month to 11 years old (median age of 1 year). Most of the cases were 1 year old (174, 30%) (Fig. 11).

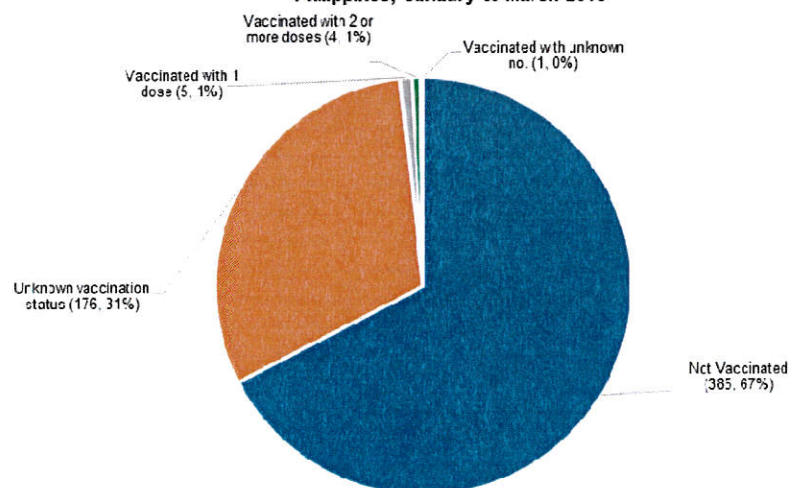
Figure 11. Reported Rotavirus Cases by Age Group and Sex (N=571)
Philippines, January to March 2018



Vaccination Status

Majority of the reported cases were not vaccinated with rotavirus (385, 67%) (Fig. 12).

Figure 12. Vaccination Status of Reported Rotavirus Cases (N=671)
Philippines, January to March 2018





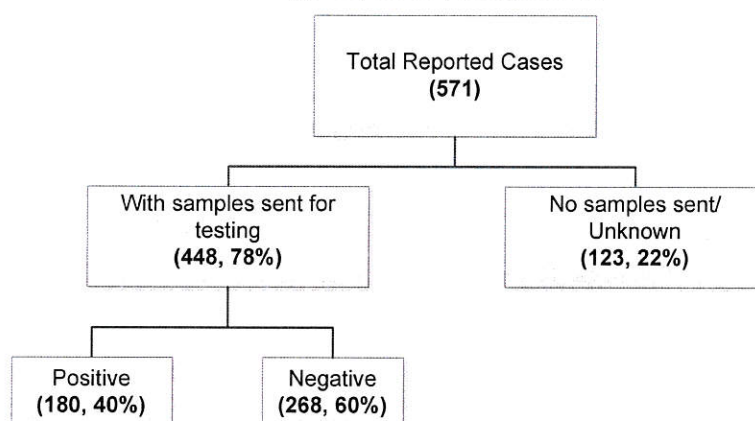
Profile of Deaths

One death (CFR=0.18%) was reported out of the 571 reported rotavirus cases. The case was a 2 year old male reported from Region I not vaccinated with Rotavirus.

Laboratory Results

A total of 448 (78%) samples were collected for laboratory testing. Of these, 180 (40%) were laboratory confirmed for rotavirus and 268 (60%) were negative (Fig. 13).

Figure 13. Reported Rotavirus Cases by Laboratory Status (N=571)
Philippines, January to March 2018



B. Confirmed Rotavirus Cases

Geographical Distribution

There was a 72% decrease of confirmed Rotavirus cases from 640 cases in 2017 to 180 cases in 2018. Most of the confirmed cases were from the following regions: Region I (41, 23%), Region XII (36, 20%), NCR (33, 18%), Region VI (22, 12%), and Region V (20, 11%) (Table 8). There were no reported deaths among confirmed cases.

Table 8. Confirmed Rotavirus Cases and Deaths by Region
Philippines, 2017 vs. 2018

Region	2017		2018*		Percent Change
	Cases	Deaths	Cases	Deaths	
Philippines	640	0	180	0	↓-72
I	268	0	41	0	↓-85
II	0	0	1	0	--
III	1	0	0	0	↓-100
IV-A	4	0	2	0	↓-50
MIMAROPA	40	0	2	0	↓-95
V	13	0	20	0	↑ 54
VI	88	0	22	0	↓-75
VII	1	0	0	0	↓-100
VIII	0	0	0	0	--
IX	0	0	0	0	--
X	0	0	0	0	--
XI	0	0	0	0	--
XII	41	0	36	0	↓-12
ARMM	45	0	18	0	↓-60
CAR	0	0	0	0	--
CARAGA	71	0	5	0	↓-93
NCR	68	0	33	0	↓-51

*From the period of January 1 to March 31, 2018

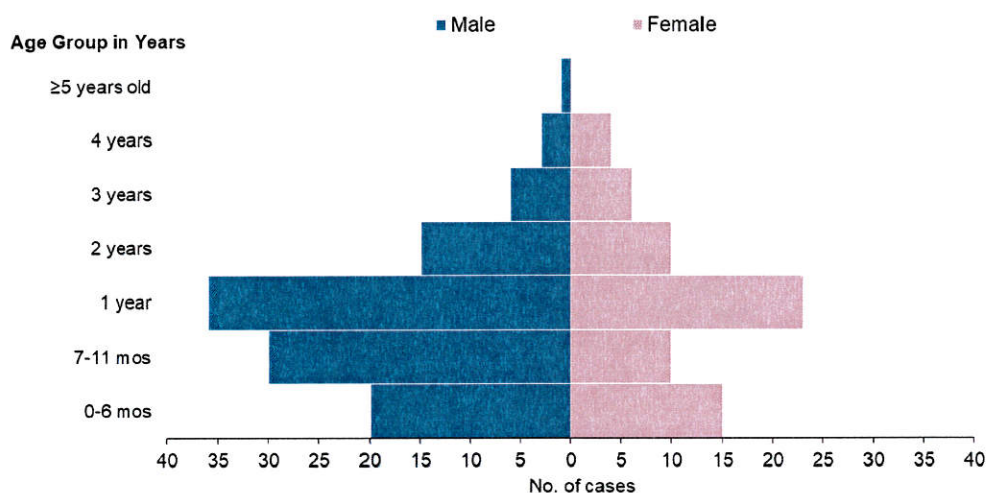


Profile of Cases

Age Group and Sex

Majority of the confirmed cases were male (112, 62%). Age of cases ranged from less than 1 month to 5 years old (median age of 1 year). Majority of the cases were 1 year old (59, 33%) (Fig. 14).

Figure 14. Confirmed Rotavirus Cases by Age Group and Sex (n=180)
Philippines, January to March 2018





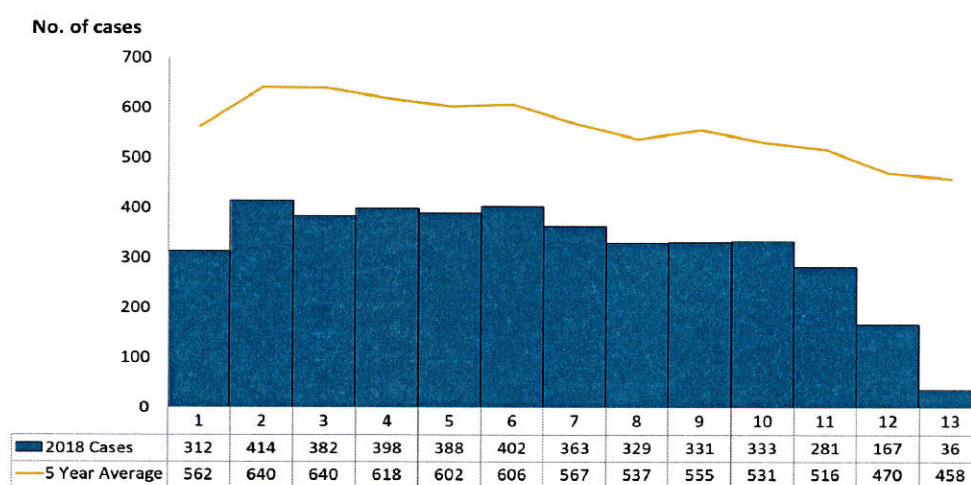
V. Typhoid Fever

A. Reported Cases

Trend in the Philippines

A total of 4,136 reported typhoid fever cases were reported nationwide from January 1 to March 31, 2018. The distribution of cases for 2018 compared to the 5-year average of cases from 2013-2017 is shown below (Fig.15).

Figure 15. Reported Typhoid Fever Cases by Morbidity Week (N=4,136)
Philippines, January to March 2018 vs 5 Year Average Data



*same time period

Geographical Distribution

There was a 30% decrease of reported typhoid fever cases from 5,889 cases in 2017 to 4,136 cases in 2018. Most of the reported cases were from the following regions: Region X (868, 21%), Region IVA (429, 10%), Region VI (407, 10%), Region XII (332, 8%), and Region IX (318, 8%) (Table 9.)

Table 9. Reported Typhoid Fever Cases & Deaths by Region
Philippines, 2017 vs 2018*

Region	2017		2018*		Percent Change
	Cases	Deaths	Cases	Deaths	
Philippines	5,889	7	4,136	7	↓-30
I	279	0	133	0	↓-52
II	165	1	67	0	↓-59
III	135	0	92	0	↓-32
IV-A	401	0	429	0	↑ 7
MIMAROPA	125	1	45	0	↓-64
V	133	1	84	1	↓-37
VI	545	0	407	2	↓-25
VII	278	2	251	2	↓-10
VIII	117	0	235	1	↑101
IX	469	1	318	0	↓-32
X	1197	0	868	0	↓-27
XI	63	0	42	0	↓-33
XII	598	1	332	0	↓-44
ARMM	376	0	284	1	↓-24
CAR	482	0	262	0	↓-46
CARAGA	389	0	191	0	↓-51
NCR	137	0	96	0	↓-30

*From the period of January 1 to March 31, 2018

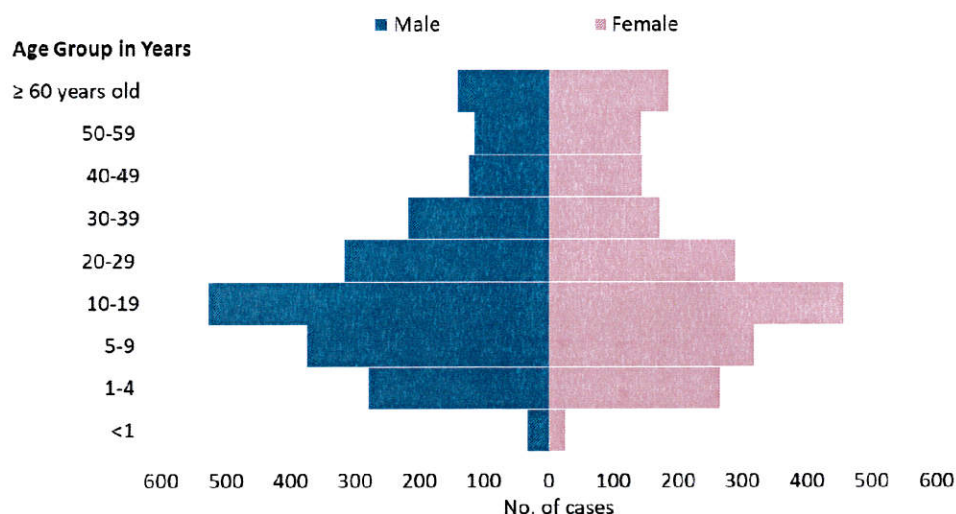
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Profile of Cases

Majority of the reported cases were male (2,136, 52%). Age of cases ranged from less than 1 month to 95 years old (median age of 17 years). The most affected age group were from 10 to 20 years old (1055, 26%) (Fig.16).

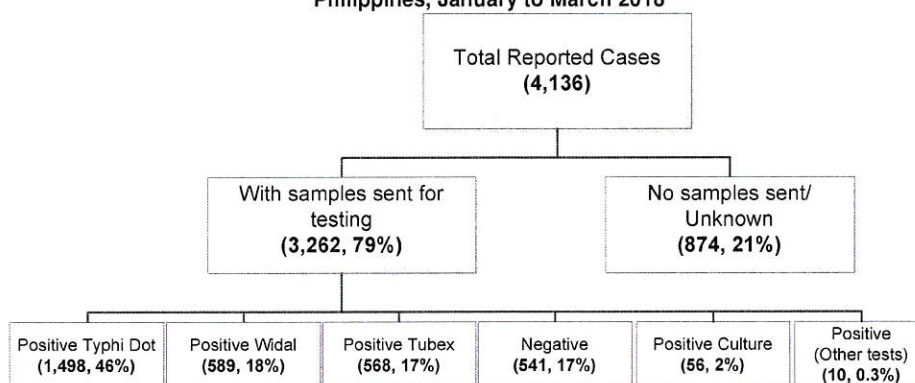
Figure 16. Reported Typhoid Fever Cases by Age Group and Sex (N=4,136)
Philippines, January to March 2018



Laboratory Results

A total of 3,262 (79%) samples were referred for testing. Laboratory status of reported typhoid fever cases is shown below (Fig. 17).

Figure 17. Reported Typhoid Fever Cases by Laboratory Status (N=4,136)
Philippines, January to March 2018



Profile of Deaths

There were seven (7) deaths (CFR=0.17%) out of the 4,136 reported typhoid fever cases. Age of deaths ranged from 2 to 83 years old (median age of 19 years). Age group of these deaths were: 10 to 20 years (3, 43%), 60 years and above (2, 29%), 1 to 4 years (1, 14%) and 31 to 40 years (1, 14%).



B. Confirmed Cases

Geographical Distribution

There was a 38% decrease of confirmed typhoid fever cases from 91 cases in 2017 to 56 cases in 2018. Most of the reported cases were from the following regions: Region VII (16, 29%), Region VIII (12, 21%), NCR (6, 11%), Region VI (5, 9%), and Region IVA (4, 7%) (Table 10.)

**Table 10. Confirmed Typhoid Fever Cases & Deaths by Region
Philippines, 2017 vs 2018***

Region	2017		2018*		Percent Change
	Cases	Deaths	Cases	Deaths	
Philippines	91	1	56	2	↓-38
I	5	0	1	0	↓-80
II	1	0	1	0	→ 0
III	1	0	2	0	↑100
IV-A	9	0	4	0	↓-56
MIMAROPA	7	0	1	0	↓-86
V	0	0	2	0	--
VI	1	0	5	0	↑400
VII	12	1	16	1	↑33
VIII	21	0	12	1	↓-43
IX	5	0	1	0	↓-80
X	11	0	1	0	↓-91
XI	4	0	0	0	↓-100
XII	1	0	1	0	→ 0
ARMM	5	0	3	0	↓-40
CAR	3	0	0	0	↓-100
CARAGA	4	0	0	0	↓-100
NCR	1	0	6	0	↑500

*From the period of January 1 to March 31, 2018

Profile of Cases

There was an equal distribution of males and females among confirmed typhoid fever cases. Age of cases ranged from 1 month to 88 years old (median age of 13 years). The most affected age group were from 10 to 20 years old (16, 29%) (Fig.18).

Profile of Deaths

There were two (2) deaths (CFR=4%) out of the 56 confirmed typhoid fever cases. Age of deaths ranged from 19 to 37 years old (median age of 28 years). Age group of these deaths were: 10 to 20 years (1, 50%) and 31 to 40 years (1, 50%).

**Figure 18. Confirmed Typhoid Fever Cases by Age Group and Sex (n=56)
Philippines, January to March 2018**

