



## 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. Exposure to a variety of pathogens in water and food causes diarrheal disease. The mode of transmission is fecal-oral route.

### I. Acute Bloody Diarrhea

#### Trend in the Philippines

A total of 16,245 acute bloody diarrhea cases were reported nationwide from January 1 to November 4, 2017. This is 29.69% higher compared to the same time period last year (12,526) (Table 1). There were 47 reported deaths (CFR=0.29%) (Table 2).

#### Geographical Distribution

Most of the reported cases were from the following regions: Region VII (35.29%), CARAGA (17.53%), CAR (8.77%), Region IX (8.40%), and Region X (7.25%) (Fig.2 and Table 2).

#### Profile of Cases

Ages of cases ranged from less than 1 month to 99 years old (median= 15 years). Majority of cases were female (50.19%). The most affected age group were from 1 year to 4 years (25%) (Fig.3).

#### Laboratory Results

A total of 9,900 (61%) samples were referred for testing. Of these, 8,668 (88%) were laboratory confirmed with different organisms. The most identified organism was *entamoeba histolytica* (87%).

Table 2. Acute Bloody Diarrhea Cases & Deaths  
Philippines, 2017\* vs 2016

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR (%)	2016	CFR (%)
I	94	73	↑ 28.77	0	0.00	1	1.37
II	1130	1074	↑ 5.21	1	0.09	0	0.00
III	303	198	↑ 53.03	0	0.00	0	0.00
IV-A	636	228	↑ 178.95	2	0.31	1	0.44
MIMAROPA	94	105	↓ -10.48	0	0.00	0	0.00
V	63	21	↑ 200.00	0	0.00	0	0.00
VI	130	150	↓ -13.33	0	0.00	0	0.00
VII	5733	5022	↑ 14.16	35	0.61	37	0.74
VIII	467	340	↑ 37.35	1	0.21	0	0.00
IX	1364	789	↑ 72.88	3	0.22	1	0.13
X	1177	601	↑ 95.84	1	0.08	2	0.33
XI	286	194	↑ 47.42	2	0.70	3	1.55
XII	240	394	↓ -39.09	0	0.00	1	0.25
ARMM	150	121	↑ 23.97	1	0.67	1	0.83
CAR	1424	1585	↓ -10.16	1	0.07	0	0.00
CRG	2848	1304	↑ 118.40	0	0.00	0	0.00
NCR	106	327	↓ -67.58	0	0.00	0	0.00
Philippines	16,245	12,526	↑ 29.69	47	0.29	47	0.38

Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. A PDF file of this report is available at [www.doh.gov.ph/statistics](http://www.doh.gov.ph/statistics).

Table 1. Food & Waterborne Diseases  
Philippines, 2017\* vs 2016

FOOD/WATER-BORNE DISEASES	2017			2016	% Difference *2017 vs 2016
	Cases	Deaths	CFR (%)	Cases	
Acute Bloody Diarrhea	16,245	47	0.29	12,526	↑ 29.69
Confirmed Cholera	123	1	0.81	119	↑ 3.36
Confirmed Rotavirus	1,204	1	0.08	1,345	↓ -10.48
Hepatitis A	391	1	0.26	625	↓ -37.44
Typhoid	19,702	33	0.17	28,249	↓ -30.26

Fig. 1 Acute Bloody Diarrhea Cases by Morbidity Week  
Philippines, January 1-November 4, 2017  
2016 vs 2017\*

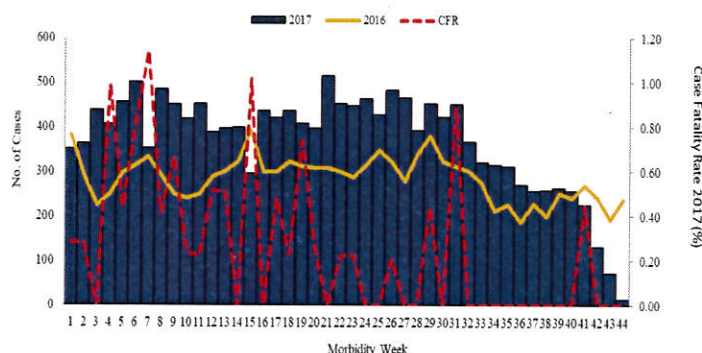


Fig. 2 Acute Bloody Diarrhea Cases by Region and Outcome (N=16,245)  
Philippines, January 1-November 4, 2017

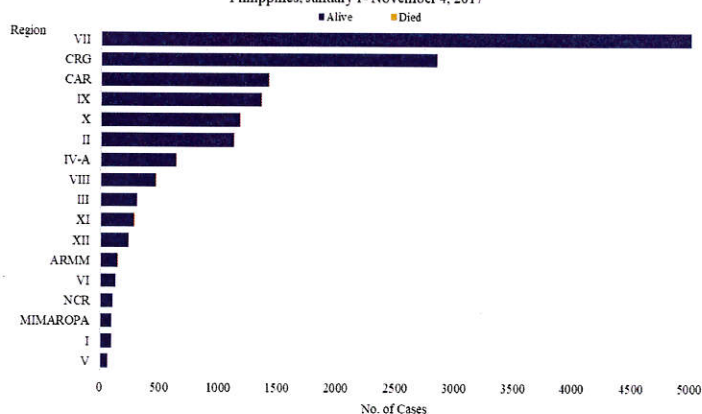
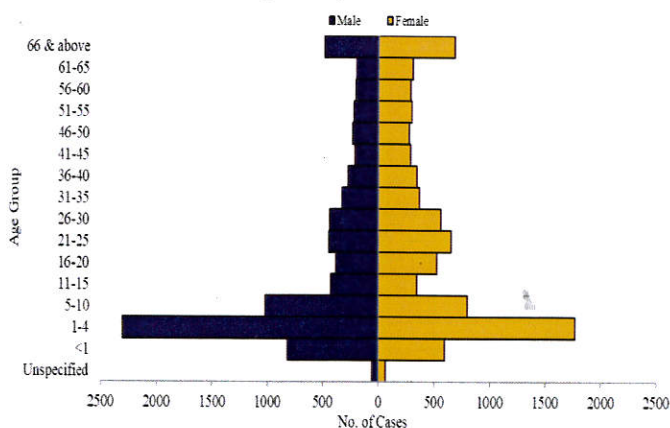


Fig. 3 Acute Bloody Diarrhea Cases by Age Group and Sex (N=16,245)  
Philippines, January 1-November 4, 2017







## II. Cholera

### Trend in the Philippines

A total of 3,263 reported cholera cases nationwide from January 1 to November 4, 2017. Among which, 24 deaths were reported (CFR=0.74%). Of the reported cases, 123 (3.77%) cases were laboratory confirmed cholera, with 1 (CFR=0.81%) confirmed death (Table 1).

### Geographical Distribution

Confirmed cases were from the following regions: Region VII (42.28%), Region IVA (20.33%), Region X (17.07%), Region V (9.76%), Region VI (5.69%), Region XI (3.25%), Region IX and CARAGA (0.81%) (Fig.5 and Table 4).

### Profile of Cases

Ages of confirmed cases ranged from 6 months to 70 years old (median= 10 years). Majority of the confirmed cases were male (61%). The most affected age group were from 5 to 10 years (28%) (Fig.6).

### Laboratory Results

A total of 342 (10%) samples were referred for testing. Of these, 123 (36%) were laboratory confirmed for *vibrio cholerae*. The organisms identified among confirmed cases were *vibrio cholerae* (45%), *vibrio cholerae* *ogawa* biotype *el tor* (41%), *vibrio cholerae* *ogawa* (11%), *vibrio cholerae* 0139 (2%), and *vibrio cholerae* non 01, non 0139 (1%) (Table 3).

Table 4. Confirmed Cholera Cases & Deaths by Region  
Philippines, 2017\* vs 2016

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR (%)	2016	CFR (%)
I	0	16	↓ -1600.00	0	0.00	0	0.00
II	0	0	→ 0.00	0	0.00	0	0.00
III	0	11	↓ -1100.00	0	0.00	0	0.00
IV-A	25	21	↑ 19.05	0	0.00	0	0.00
MIMAROPA	0	0	→ 0.00	0	0.00	0	0.00
V	12	12	→ 0.00	0	0.00	0	0.00
VI	7	16	↓ -56.25	0	0.00	0	0.00
VII	52	0	↑ 5200.00	1	1.92	0	0.00
VIII	0	26	↓ -2600.00	0	0.00	0	0.00
IX	1	0	↑ 100.00	0	0.00	0	0.00
X	21	8	↑ 162.50	0	0.00	0	0.00
XI	4	2	↑ 100.00	0	0.00	0	0.00
XII	0	0	→ 0.00	0	0.00	0	0.00
ARMM	0	4	↓ -400.00	0	0.00	0	0.00
CAR	0	2	↓ -200.00	0	0.00	0	0.00
CRG	1	1	→ 0.00	0	0.00	0	0.00
NCR	0	0	→ 0.00	0	0.00	0	0.00
Philippines	123	119	↑ 3.36	1	0.81	0	0.00

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Fig. 4 Cholera Cases by Morbidity Week and Case Classification  
Philippines, January 1-November 4, 2017  
2016 vs 2017\*

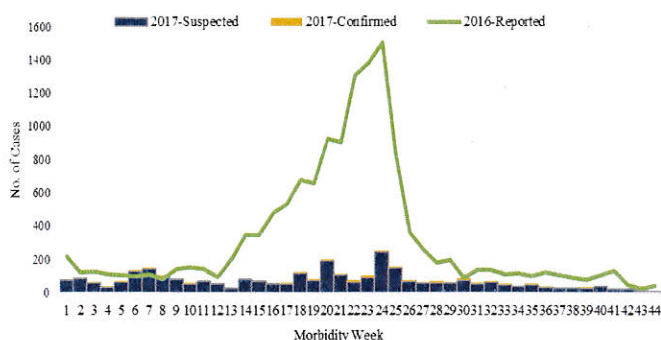


Fig. 5 Cholera Cases by Region and Case Classification (N=3,263)  
Philippines, January 1-November 4, 2017

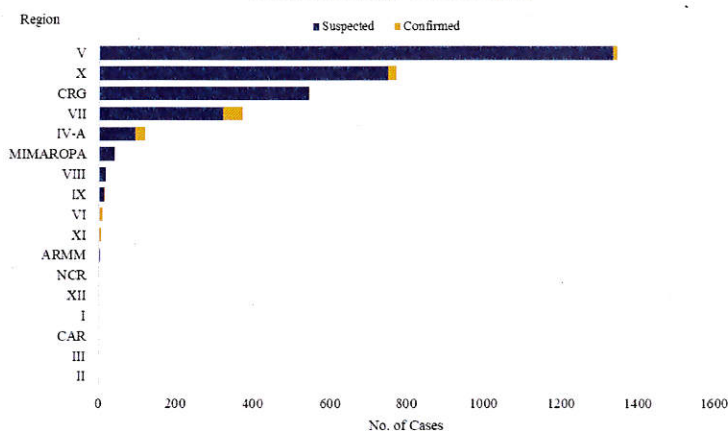


Fig. 6 Cholera Cases by Age Group, Sex and Case Classification (N=3,263)  
Philippines, January 1-November 4, 2017

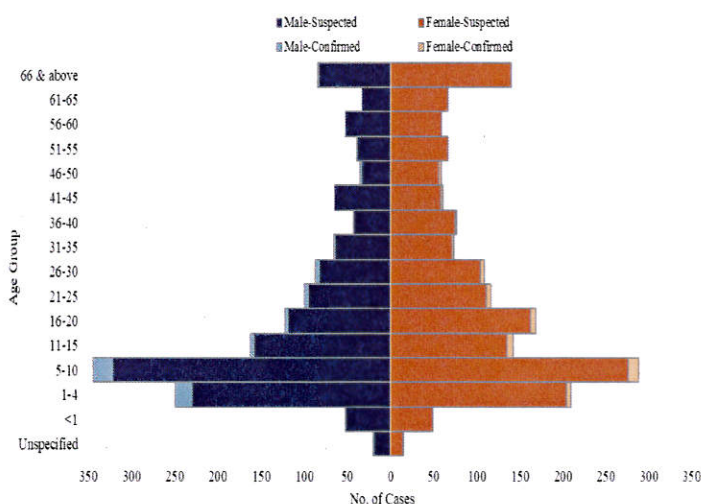


Table 3. Organisms in Cholera Cases (n=123)

Organism	Cases	%
<i>Vibrio Cholerae</i>	55	45
<i>Vibrio Cholerae</i> <i>Ogawa</i> Biotype <i>El Tor</i>	50	41
<i>Vibrio Cholerae</i> <i>Ogawa</i>	14	11
<i>Vibrio Cholerae</i> 0139	3	2
<i>Vibrio Cholerae</i> Non 01, Non 0139	1	1
Total	123	100





### III. Hepatitis A

#### Trend in the Philippines

A total of 391 Hepatitis A cases reported nationwide from January 1 to November 4, 2017. Among which, 1 death was reported (CFR=0.26%). This is 37.44% lower compared to the same time period last year (625) (Table 1).

#### Geographical Distribution

Most of the cases were from the following regions: Region VII (25.58%), Region VI (14.32%), Region X (12.28%), NCR (9.72%) and Region IVA (6.14%) (Fig.8 and Table 5).

#### Profile of Cases

Ages of cases ranged from less than 1 month to 90 years old (median= 25 years). Majority of the confirmed cases were male (64%). The most affected age group were from 16 to 20 years (17%) (Fig.9).

#### Laboratory Results

A total of 391 (100%) samples were reactive for IgM anti-HAV.

Table 5. Hepatitis A Cases & Deaths by Region  
Philippines, 2017\* vs 2016

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR (%)	2016	CFR (%)
I	14	8	↑ 75.00	0	0.00	0	0.00
II	3	7	↓ -57.14	0	0.00	0	0.00
III	14	18	↓ -22.22	1	7.14	0	0.00
IV-A	24	52	↓ -53.85	0	0.00	0	0.00
MIMAROPA	1	25	↓ -96.00	0	0.00	0	0.00
V	12	14	↓ -14.29	0	0.00	0	0.00
VI	56	69	↓ -18.84	0	0.00	0	0.00
VII	100	187	↓ -46.52	0	0.00	1	0.53
VIII	5	10	↓ -50.00	0	0.00	0	0.00
IX	23	52	↓ -55.77	0	0.00	0	0.00
X	48	51	↓ -5.88	0	0.00	0	0.00
XI	4	8	↓ -50.00	0	0.00	0	0.00
XII	13	22	↓ -40.91	0	0.00	0	0.00
ARMM	14	30	↓ -53.33	0	0.00	0	0.00
CAR	8	6	↑ 33.33	0	0.00	0	0.00
CRG	14	12	↑ 16.67	0	0.00	0	0.00
NCR	38	54	↓ -29.63	0	0.00	1	1.85
Philippines	391	625	↓ -37.44	1	0.26	2	0.32

Fig. 7 Hepatitis A Cases by Morbidity Week  
Philippines, January 1-November 4, 2017  
2016 vs 2017\*

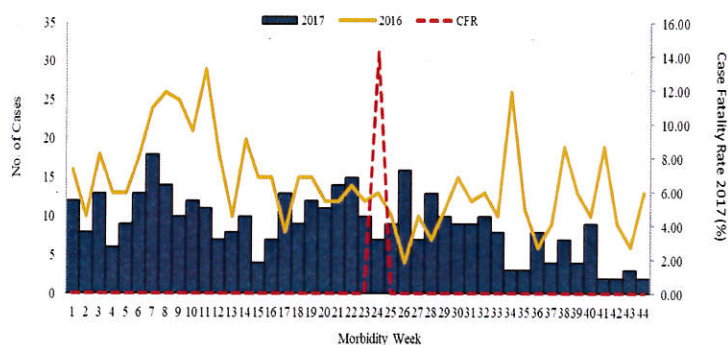


Fig. 8 Hepatitis A Cases by Region (N=391)  
Philippines, January 1-November 4, 2017

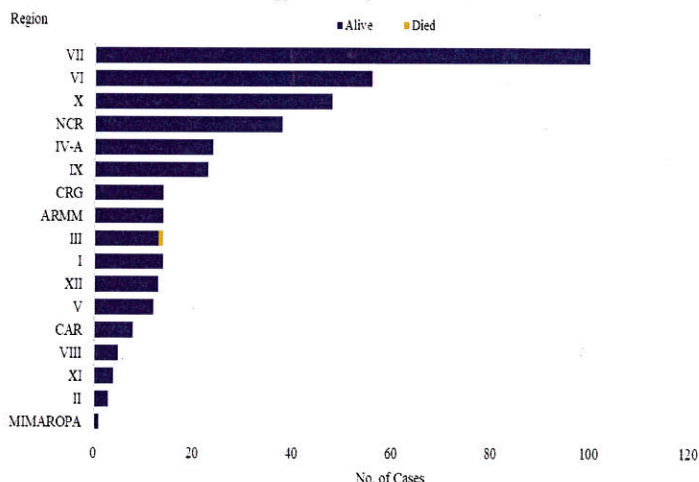
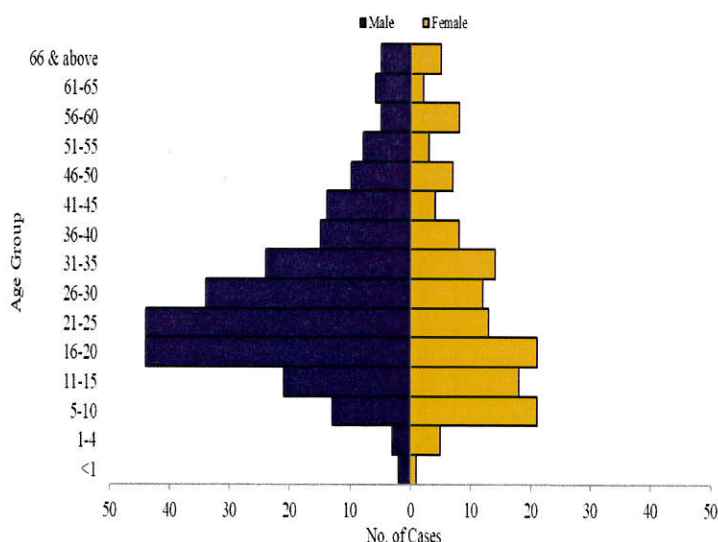


Fig. 9 Hepatitis A Cases by Age Group and Sex (N=391)  
Philippines, January 1-November 4, 2017







#### IV. Rotavirus

##### Trend in the Philippines

A total of 3,319 reported rotavirus cases nationwide from January 1 to November 4, 2017. This is 25.6% lower compared to the same time period last year (4,463). Among which, 25 deaths were reported (CFR=0.75%). Of the reported cases, 1,204 (36%) cases were laboratory confirmed rotavirus with 1 case death reported (CFR=0.08%). This is 10.5% lower compared to the same time period last year (1,345) (Table 6).

##### Geographical Distribution

Confirmed cases were mostly from the following regions: Region I (27.82%), Region VI (22.84%), Region XII (11.79%), CARAGA (11.71%), and ARMM (9.22%) (Fig.11 and Table 6).

##### Profile of Cases

Ages of confirmed cases ranged from less than 1 month to 7 years old (median= 1 year). Majority of the confirmed cases were male (57%). Most of the confirmed cases belonged to 1 year old (38.87%) (Fig. 12).

##### Further Analysis

A total of 2,473 (75%) samples were tested. Of these, 1,204 (49%) were laboratory confirmed for rotavirus and 1,269 (51%) were negative.

Table 6. Confirmed Rotavirus Cases & Deaths by Region  
Philippines, 2017\* vs 2016

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR	2016	CFR
I	335	299	↑ 12.04	0	0.00	2	0.67
II	0	0	⇒ 0.00	0	0.00	0	0.00
III	1	2	↓ -50.00	0	0.00	0	0.00
IV-A	4	4	⇒ 0.00	0	0.00	0	0.00
MIMAROPA	65	19	↑ 242.11	0	0.00	0	0.00
V	53	27	↑ 96.30	0	0.00	0	0.00
VI	275	299	↓ -8.03	0	0.00	0	0.00
VII	2	0	↑ 200.00	0	0.00	0	0.00
VIII	0	30	↓ 3000.00	0	0.00	0	0.00
IX	0	69	↓ 6900.00	0	0.00	0	0.00
X	0	0	⇒ 0.00	0	0.00	0	0.00
XI	2	0	↑ 200.00	0	0.00	0	0.00
XII	142	181	↓ -21.55	0	0.00	0	0.00
ARMM	111	206	↓ -46.12	1	0.90	1	0.49
CAR	0	0	⇒ 0.00	0	0.00	0	0.00
CARAGA	141	103	↑ 36.89	0	0.00	0	0.00
NCR	73	106	↓ -31.13	0	0.00	0	0.00
Philippines	1204	1345	↓ -10.48	1	0.08	3	0.22

Fig. 10 Rotavirus Cases by Morbidity Week and Case Classification, Philippines, January 1- November 4, 2017 2017\* vs 2016

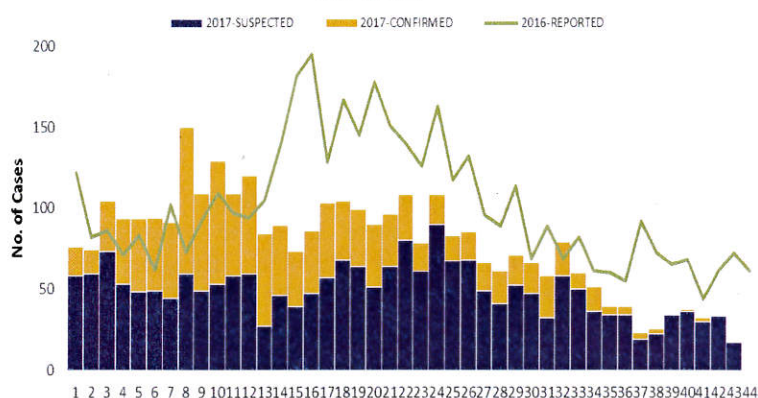


Fig. 11 Rotavirus Cases by Region and Case Classification (N=3,319) Philippines, January 1- November 4, 2017

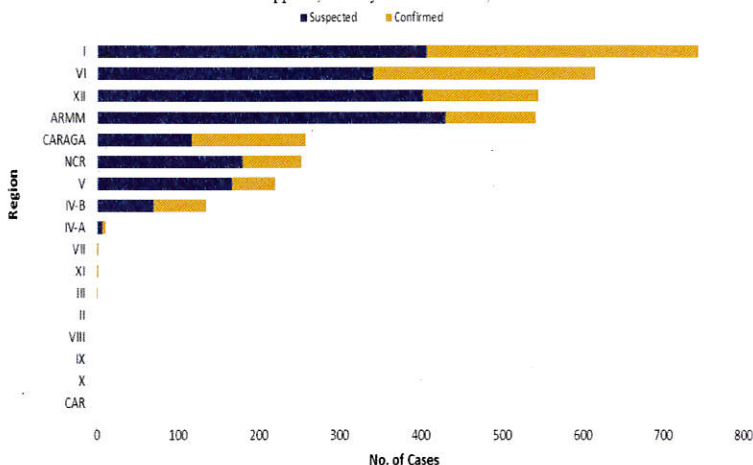
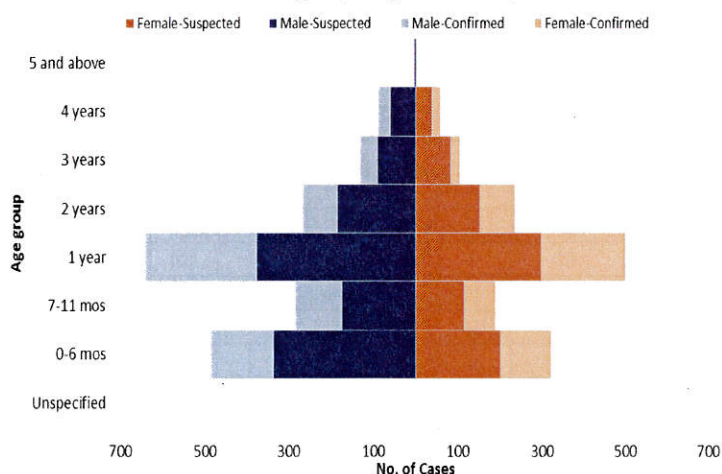


Fig. 12 Rotavirus Cases by Age group, Sex and Case Classification (N=3,319) Philippines, January 1 - November 4, 2017







## V. Typhoid

### Trend in the Philippines

A total of 19,702 reported typhoid cases were reported nationwide from January 1 to November 4, 2017 with 33 deaths (CFR=0.17%). This is 30.26% lower compared to the same time period last year (28,249) (Table 1). Of the reported cases, 318 (1.61%) cases were confirmed typhoid with 1 death (CFR=0.31%). This is 8.53% higher compared to the same time period last year (293).

### Geographical Distribution

Most of the reported cases were from the following regions: Region X (20.60%), XII (10.59%), Region VI (9.55%), CAR (8.84%), and Region IX (7.88%). However, the top 5 regions with confirmed typhoid case were the following: Region VIII (42.14%), Region VII (11.64%), Region X (9.12%), Region IVA (7.55%) and Region IX (5.03%) (Fig.14 and Table 7).

### Profile of Cases

Ages of reported cases ranged from less than 1 month to 106 years old (median= 17 years). Majority of cases were male (53%). The most affected age group were from 5 to 10 years old (19.84%) (Fig.15).

### Further Analysis

A total of 15,975 (81%) samples were referred for testing. Of these, 13,755 (86%) were positive for tubex, typhi dot, widal and RDT, 318 (2%) were tested with positive culture for salmonella typhi, and 1,902 (12%) were tested negative.

Table 7. Typhoid Cases & Deaths by Region  
Philippines, 2017\* vs 2016

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR	2016	CFR
I	1,076	1,798	↓40.16	1	0.09	0	0.00
II	641	601	↑6.66	1	0.16	1	0.17
III	592	1,230	↓51.87	0	0.00	0	0.00
IV-A	1,394	1,825	↓23.62	0	0.00	1	0.05
MIMAROPA	280	883	↓68.29	1	0.36	2	0.23
V	350	289	↑21.11	1	0.29	3	1.04
VI	1,882	2,876	↓34.56	4	0.21	8	0.28
VII	1,276	1,099	↑16.11	10	0.78	7	0.64
VIII	451	499	↓9.62	2	0.44	0	0.00
IX	1,552	1,631	↓4.84	4	0.26	8	0.49
X	4,058	5,018	↓19.13	0	0.00	1	0.02
XI	218	206	↑5.83	0	0.00	0	0.00
XII	2,087	3,761	↓44.51	1	0.05	1	0.03
ARMM	932	1,337	↓30.29	6	0.64	3	0.22
CAR	1,742	4,038	↓56.86	1	0.06	2	0.05
CARAGA	839	826	↑1.57	0	0.00	1	0.12
NCR	332	332	⇒0.00	1	0.30	3	0.90
Philippines	19,702	28,249	↓30.26	33	0.17	41	0.15

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Fig. 13 Reported Typhoid Cases by Morbidity Week  
Philippines, January 1- November 4, 2017  
2016 vs 2017\*

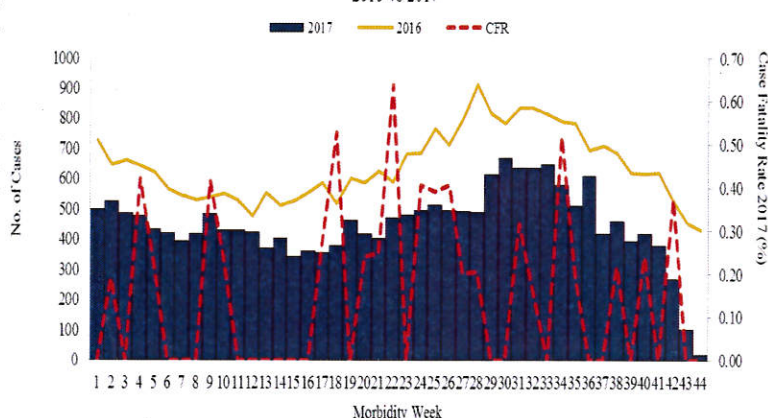


Fig. 14 Typhoid Cases by Region and Case Classification (N=19,702)  
Philippines, January 1 - November 4, 2017

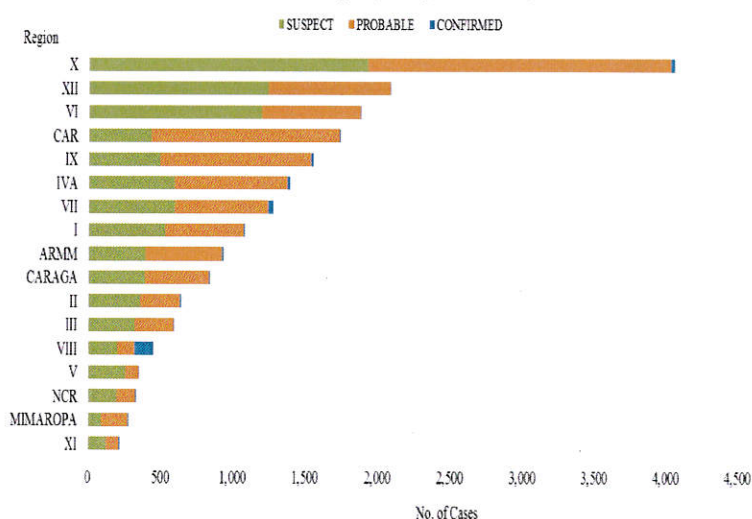
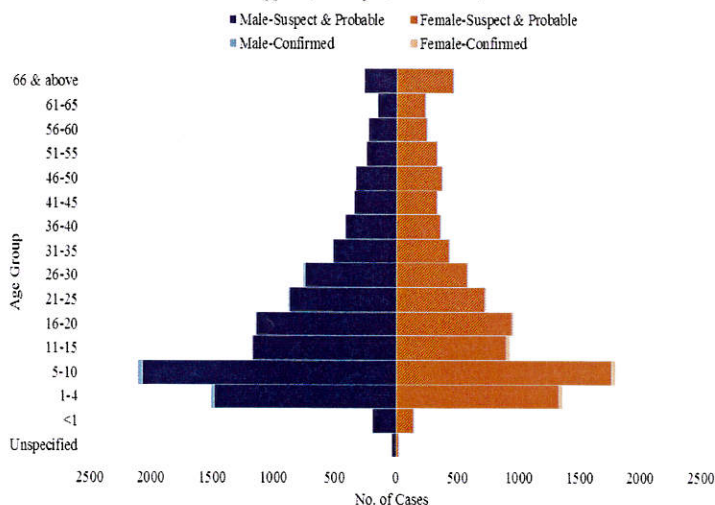



Fig. 15 Typhoid Cases by Age Group, Sex and Case Classification (N=19,702)  
Philippines, January 1 - November 4, 2017







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