



## 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 12,993 acute bloody diarrhea cases were reported nationwide from January 1 to September 2, 2017. This is 23.96% higher compared to the same time period last year (10,482) (Table 1). There were 45 reported deaths (CFR=0.35%) (Table 2).

#### Geographical Distribution

Most of the reported cases were from the following regions: Region VII (37%), CARAGA (19%), CAR (9%), Region X (7%), and Region IX (6%) (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 male (50.02%). The most affected age group were from 1 year to 4 years (25%) (Fig.3).

#### Laboratory Results

A total of 7,734 (60%) samples were referred for testing. Of these, 6,772 (88%) were laboratory confirmed with different organisms. The top organisms identified were *entamoeba histolytica* (87%), *escherichia coli* (3%) and *trophozoites* (3%).

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

Region	Cases			Deaths		
	2017	2016	% Change	2017	CFR (%)	2016
I	78	52	↑ 50.00	0	0.00	0
II	734	947	↓ -22.49	0	0.00	0
III	249	153	↑ 62.75	0	0.00	0
IV-A	505	170	↑ 197.06	2	0.40	1
MIMAROPA	87	87	0.00	0	0.00	0
V	58	14	↑ 314.29	0	0.00	0
VI	71	121	↓ -41.32	0	0.00	0
VII	4810	4304	↑ 11.76	35	0.73	33
VIII	409	311	↑ 31.51	1	0.24	0
IX	821	650	↑ 26.31	3	0.37	1
X	868	511	↑ 69.86	0	0.00	0
XI	221	121	↑ 82.64	2	0.90	3
XII	190	336	↓ -43.45	0	0.00	0
ARMM	104	110	↓ -5.45	1	0.96	1
CAR	1230	1303	↓ -5.60	1	0.08	0
CRG	2472	980	↑ 152.24	0	0.00	0
NCR	86	312	↓ -72.44	0	0.00	0
Philippines	12993	10482	↑ 23.96	45	0.35	39

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	12,993	45	0.35	10,482	↑	23.96
Confirmed Cholera	118	1	0.85	71	↑	66.20
Confirmed Rotavirus	1,045	1	0.10	1,192	↓	-12.33
Hepatitis A	325	1	0.31	521	↓	-37.62
Typhoid	14,557	24	0.16	22,892	↓	-36.41

Fig. 1 Acute Bloody Diarrhea Cases by Morbidity Week  
Philippines, January 1-September 2, 2017  
2016 vs 2017\*

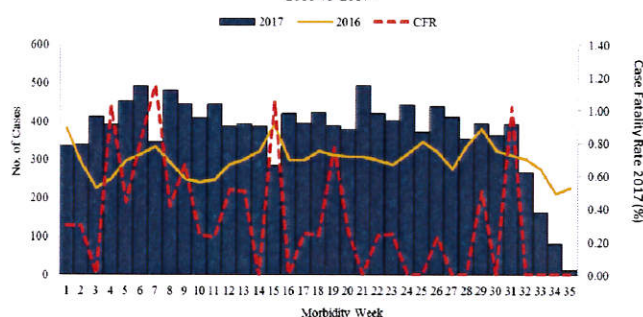


Fig. 2 Acute Bloody Diarrhea Cases by Region and Outcome (N=12,993)  
Philippines, January 1- September 2, 2017

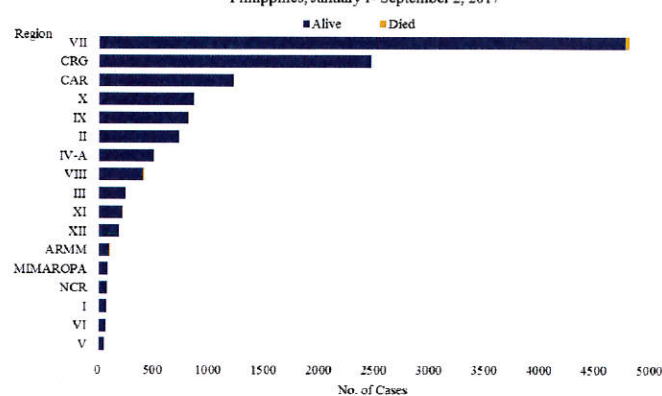
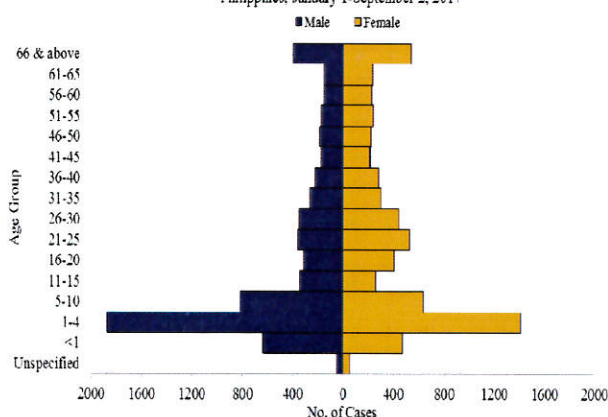


Fig. 3 Acute Bloody Diarrhea Cases by Age Group and Sex (N=12,993)  
Philippines, January 1-September 2, 2017





## II. Cholera

### Trend in the Philippines

A total of 2,829 reported cholera cases nationwide from January 1 to September 2, 2017. Among which, 18 deaths were reported (CFR=0.64%). Of the reported cases, 118 (4.2%) cases were laboratory confirmed cholera, with 1 (CFR=0.85%) confirmed death (Table 1).

### Geographical Distribution

Confirmed cases were from the following regions: Region VII (43%), Region IVA (21%), Region X (16%), Region V (9%), Region VI (6%), Region XI (3%), and Region IX (1%) (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 (60%). The most affected age group were from 5 to 10 years (29%) (Fig.6).

### Laboratory Results

A total of 275 (10%) samples were referred for testing. Of these, 118 (43%) were laboratory confirmed for *vibrio cholerae*. The organisms identified among confirmed cases were *vibrio cholerae* (46%), *vibrio cholerae* ogawa biotype *el tor* (40%), *vibrio cholerae* ogawa (12%), *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	12	↓1200.00	0	0.00	0	0.00
II	0	0	⇒ 0.00	0	0.00	0	0.00
III	0	0	⇒ 0.00	0	0.00	0	0.00
IV-A	25	14	↑78.57	0	0.00	0	0.00
MIMAROPA	0	0	⇒ 0.00	0	0.00	0	0.00
V	11	12	↓8.33	0	0.00	0	0.00
VI	7	0	↑700.00	0	0.00	0	0.00
VII	51	0	↑5100.00	1	1.96	0	0.00
VIII	0	25	↓2500.00	0	0.00	0	0.00
IX	1	0	↑100.00	0	0.00	0	0.00
X	19	0	↑1900.00	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	0	0	⇒ 0.00	0	0.00	0	0.00
NCR	0	0	⇒ 0.00	0	0.00	0	0.00
Philippines	118	71	↑66.20	1	0.85	0	0.00

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).

Fig. 4 Cholera Cases by Morbidity Week and Case Classification  
Philippines, January 1-September 2, 2017  
2016 vs 2017\*

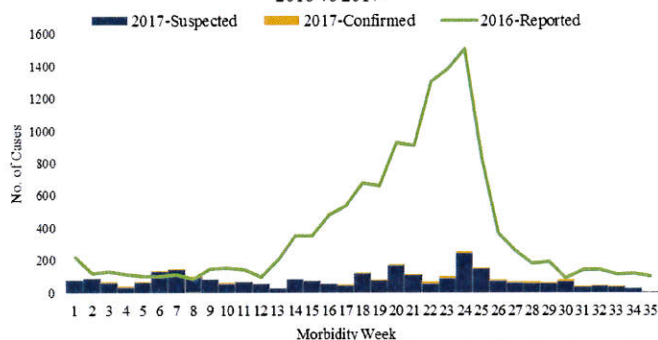


Fig. 5 Cholera Cases by Region and Case Classification (N=2,829)  
Philippines, January 1-September 2, 2017

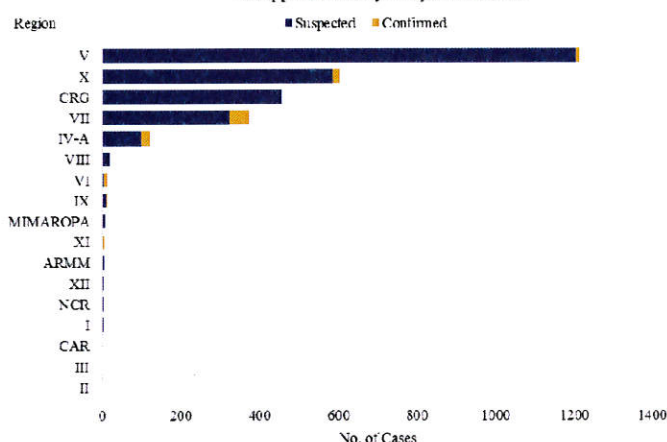


Fig. 6 Cholera Cases by Age Group, Sex and Case Classification (N=2,829)  
Philippines, January 1-September 2, 2017

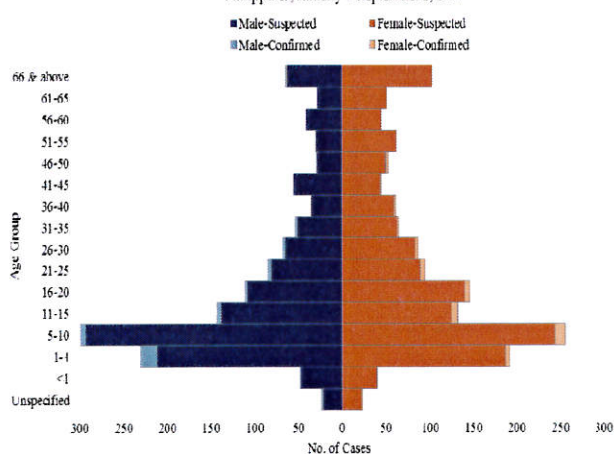


Table 3. Organisms in Cholera Cases (n=118)

Organism	Cases	%
<i>Vibrio Cholerae</i>	54	46
<i>Vibrio Cholerae</i> Ogawa Biotype El Tor	47	40
<i>Vibrio Cholerae</i> Ogawa	14	12
<i>Vibrio Cholerae</i> 0139	2	2
<i>Vibrio Cholerae</i> Non 01, Non 0139	1	1
Total	118	100





### III. Hepatitis A

#### Trend in the Philippines

A total of 325 Hepatitis A cases reported nationwide from January 1 to September 2, 2017. Among which, 1 death was reported (CFR=0.31). This is 37.62% lower compared to the same time period last year (521) (Table 1).

#### Geographical Distribution

Most of the cases were from the following regions: Region VII (27%), Region VI (14%), Region X (11%), NCR (9%) and Region IVA (6%) (Fig.8 and Table 5).

#### Profile of Cases

Ages of cases ranged from less than 1 month to 90 years old (median= 24 years). Majority of the confirmed cases were male (63%). The most affected age group were from 16 to 20 years (17%) (Fig.9).

#### Laboratory Results

A total of 325 (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	5	↑180.00	0	0.00	0	0.00
II	1	5	↓80.00	0	0.00	0	0.00
III	12	15	↓20.00	1	8.33	0	0.00
IV-A	21	42	↓50.00	0	0.00	0	0.00
MIMAROPA	1	24	↓95.83	0	0.00	0	0.00
V	9	10	↓10.00	0	0.00	0	0.00
VI	44	61	↓27.87	0	0.00	0	0.00
VII	89	151	↓41.06	0	0.00	1	0.66
VIII	4	10	↓60.00	0	0.00	0	0.00
IX	18	49	↓63.27	0	0.00	0	0.00
X	35	40	↓12.50	0	0.00	0	0.00
XI	3	8	↓62.50	0	0.00	0	0.00
XII	11	18	↓38.89	0	0.00	0	0.00
ARMM	13	24	↓45.83	0	0.00	0	0.00
CAR	8	6	↑33.33	0	0.00	0	0.00
CRG	12	9	↑33.33	0	0.00	0	0.00
NCR	30	44	↓31.82	0	0.00	1	2.27
Philippines	325	521	↓37.62	1	0.31	2	0.38

Fig. 7 Hepatitis A Cases by Morbidity Week  
Philippines, January 1-September 2, 2017  
2016 vs 2017\*

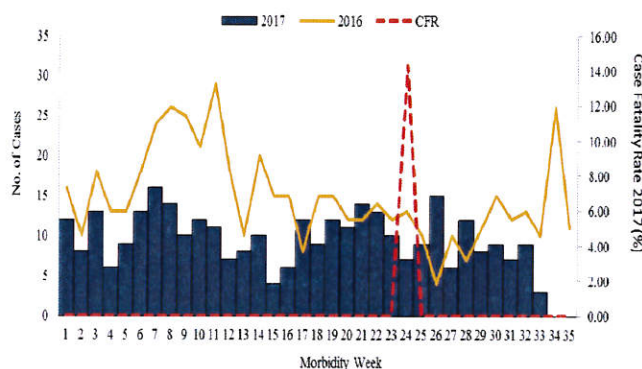


Fig. 8 Hepatitis A Cases by Region (N=325)  
Philippines, January 1-September 2, 2017

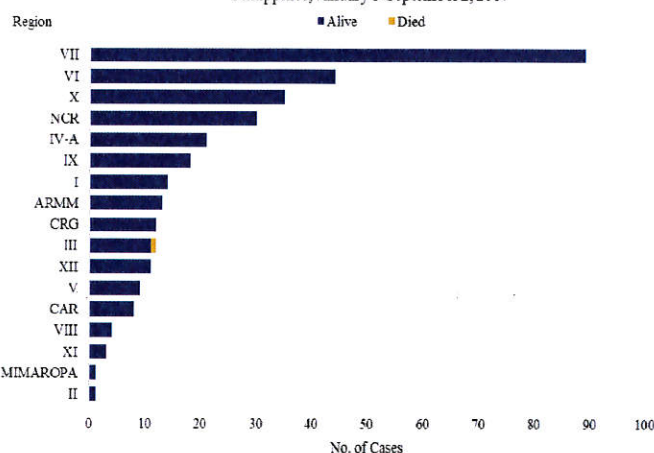
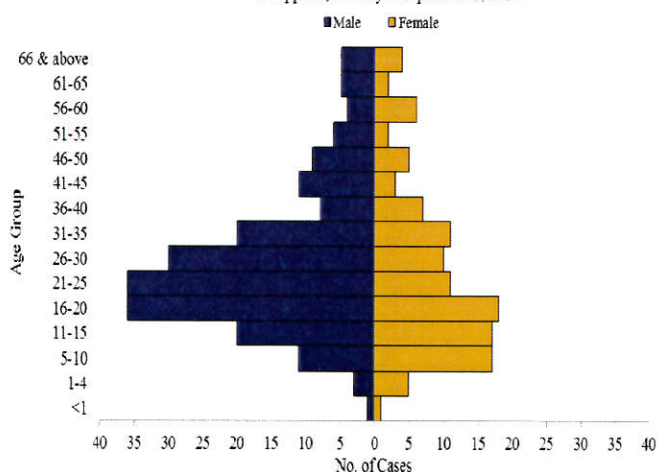


Fig. 9 Hepatitis A Cases by Age Group and Sex (N=325)  
Philippines, January 1-September 2, 2017





#### IV. Rotavirus

##### Trend in the Philippines

A total of 2,750 reported rotavirus cases nationwide from January 1 to September 2, 2017. Among which, 20 deaths were reported (CFR=0.73%). Of the reported cases, 1,045 (38%) cases were laboratory confirmed rotavirus with 1 case death reported. This is 12.3% lower compared to the same time period last year (1,192) (Table 6).

##### Geographical Distribution

Confirmed cases were mostly from the following regions: Region I (31.87%), Region VI (22.01%), CARAGA (12.06%), ARMM (8.13%), and Region XII (7.37%) (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 (35.50%) (Fig. 12).

##### Further Analysis

A total of 2,001 (73%) samples were tested. Of these, 1,045 (52%) were laboratory confirmed for rotavirus and 956 (48%) 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	333	267	↑ 24.72	0	0.00	2	0.75
II	0	0	→ 0.00	0	0.00	0	0.00
III	1	1	→ 0.00	0	0.00	0	0.00
IV-A	4	4	→ 0.00	0	0.00	0	0.00
MMAROPA	62	17	↑ 264.71	0	0.00	0	0.00
V	50	26	↑ 92.31	0	0.00	0	0.00
VI	230	283	↓ -18.73	0	0.00	0	0.00
VII	2	0	↑ 200.00	0	0.00	0	0.00
VIII	0	13	↓ -1300.00	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	77	140	↓ -45.00	0	0.00	0	0.00
ARMM	85	186	↓ -54.30	1	1.18	0	0.00
CAR	0	0	→ 0.00	0	0.00	0	0.00
CARAGA	126	87	↑ 44.83	0	0.00	0	0.00
NCR	73	99	↓ -26.26	0	0.00	0	0.00
Philippines	1045	1192	↓ -12.33	1	0.10	2	0.17

Fig. 10 Confirmed Rotavirus Cases by Morbidity Week and Case Classification, Philippines, January 1- September 2, 2017  
2017\* vs 2016

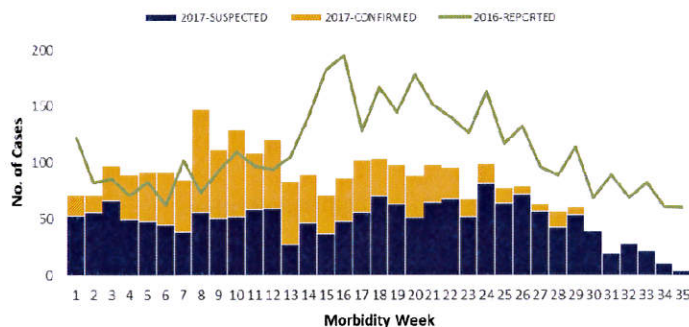


Fig. 11 Rotavirus Cases by Region and Case Classification (N=2,750)  
Philippines, January 1- September 2, 2017

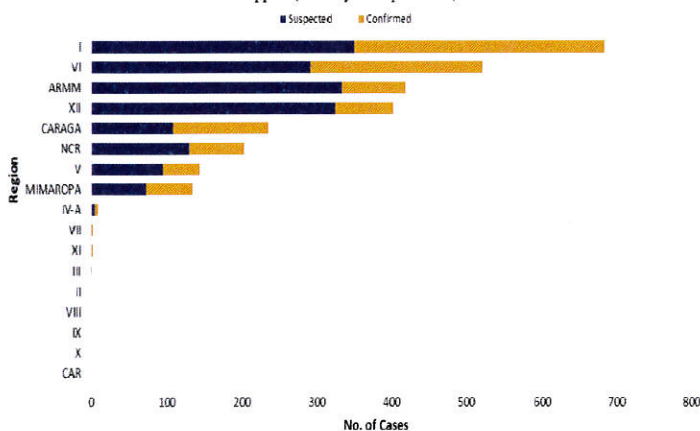
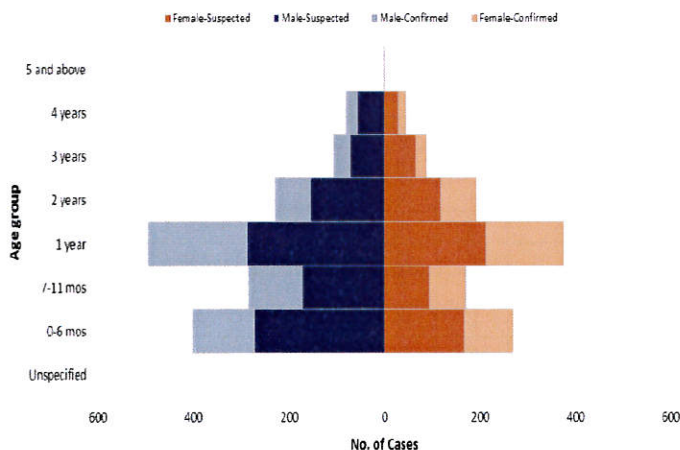


Fig. 12 Rotavirus Cases by Age group, Sex and Case Classification (N=2,750)  
Philippines, January 1 - September 2, 2017







## V. Typhoid

### Trend in the Philippines

A total of 14,557 reported typhoid cases were reported nationwide from January 1 to September 2, 2017 with 24 deaths (CFR=0.16%). This is 36.41% lower compared to the same time period last year (22,892) (Table 1). Of the reported cases, 237 (1.63%) cases were confirmed typhoid.

### Geographical Distribution

Most of the reported cases were from the following regions: Region X (20.95%), XII (10.26%), CAR (9.84%), Region VI (9.18%), and Region IVA (7.42%). However, the top 5 regions with confirmed typhoid case were the following: Region VIII (42.19%), Region VII (10.55%), Region X (9.70%), Region IVA (6.33%) and Region IX (5.49%) (Fig.14 and Table 7).

### Profile of Cases

Ages of cases ranged from less than 1 month to 106 years old (median= 17 years). Majority of cases were male (52.42%). The most affected age group were from 5 to 10 years old (19.67%) (Fig.15).

### Further Analysis

A total of 11,781 (81%) samples were referred for testing. Of these, 10,146 (86%) were positive for tubex, typhi dot, widal and RDT, 237 (2%) were tested with positive culture for salmonella typhi, and 1,398 (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	846	1,463	↓ -42.17	0	0.00	0	0.00
II	375	517	↓ -27.47	1	0.27	1	0.19
III	431	980	↓ -56.02	0	0.00	0	0.00
IV-A	1,080	1,516	↓ -28.76	0	0.00	1	0.07
MIMAROPA	227	695	↓ -67.34	1	0.44	2	0.29
V	283	243	↑ 16.46	1	0.35	3	1.23
VI	1,336	2,214	↓ -39.66	4	0.30	5	0.23
VII	949	904	↑ 4.98	6	0.63	7	0.77
VIII	338	455	↓ -25.71	2	0.59	0	0.00
IX	886	1,350	↓ -34.37	3	0.34	5	0.37
X	3,049	4,039	↓ -24.51	0	0.00	1	0.02
XI	169	184	↓ -8.15	0	0.00	0	0.00
XII	1,494	3,155	↓ -52.65	1	0.07	1	0.03
ARMM	693	1,081	↓ -35.89	5	0.72	2	0.19
CAR	1,432	3,152	↓ -54.57	0	0.00	2	0.06
CARAGA	686	669	↑ 2.54	0	0.00	0	0.00
NCR	283	275	↑ 2.91	0	0.00	3	1.09
Philippines	14557	22892	↓ -36.41	24	0.16	33	0.14

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).

Fig. 13 Reported Typhoid Cases by Morbidity Week  
Philippines, January 1- September 2, 2017  
2016 vs 2017\*

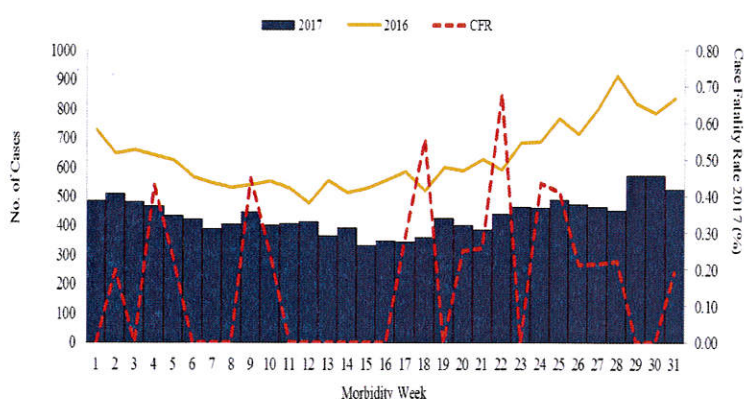


Fig. 14 Typhoid Cases by Region and Case Classification (N=14,557)  
Philippines, January 1 - September 2, 2017

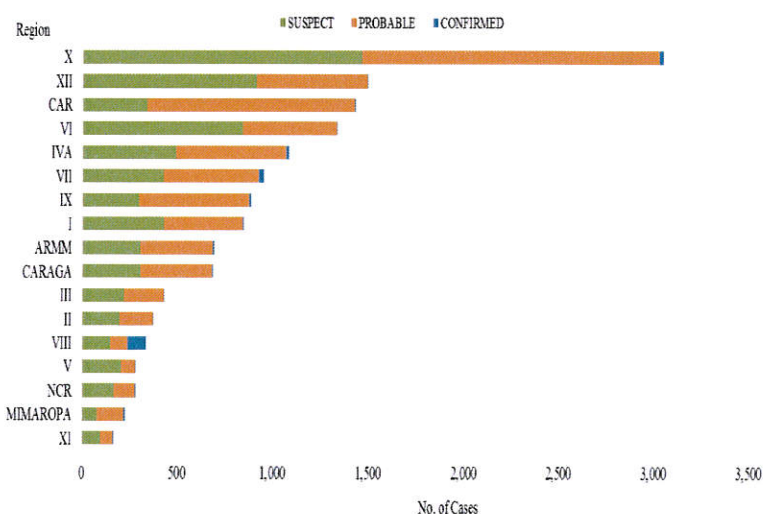
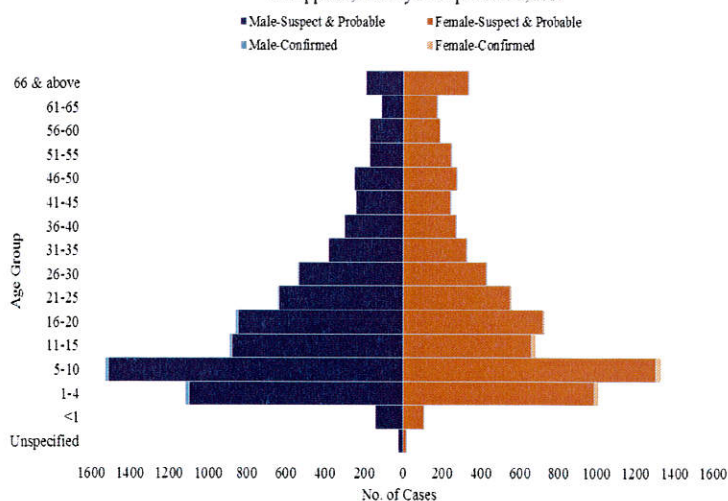


Fig. 15 Typhoid Cases by Age Group, Sex and Case Classification (N=14,557)  
Philippines, January 1 - September 2, 2017






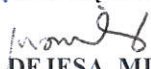
Department of Health  
Epidemiology Bureau  
Public Health Surveillance Division

**Food and Waterborne Diseases**  
(January 1 to September 2, 2017)


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