



## 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 5,338 acute bloody diarrhea cases were reported nationwide from January 1 to May 6, 2017. This is 0.11% lower compared to the same time period last year (5,344) (Table 1). There were 27 reported deaths (CFR=0.51%) (Table 2).

#### Geographical Distribution

Most of the reported cases were from the following regions: Region VII (46.55%), CARAGA (9.40%), CAR (9.24%), Region X (6.89%), and Region IX (6.29 %) (Fig.2 and Table 2).

#### Profile of Cases

Ages of cases ranged from less than 1 month to 98 years old (median= 13 years). Majority of cases were male (50.51%). The most affected age group were from 1 year to 4 years (27%) (Fig.3).

#### Further Analysis

A total of 2,899 (54%) samples were referred for testing. Of these, 2,515 (87%) were laboratory confirmed with different organisms. The top organisms identified were *entamoeba histolytica* (88%), *trophozoites* (4%), and *escherichia coli* (2%).

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

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR (%)	2016	CFR (%)
I	15	21	↓-28.57	0	0.00	0	0.00
II	226	496	↓-54.44	0	0.00	0	0.00
III	98	100	↓-2.00	0	0.00	0	0.00
IV-A	150	78	↑92.31	2	1.33	1	1.28
MIMAROPA	40	39	↑2.56	0	0.00	0	0.00
V	34	7	↑385.71	0	0.00	0	0.00
VI	31	35	↓-11.43	0	0.00	0	0.00
VII	2485	2159	↑15.10	20	0.80	26	1.20
VIII	253	178	↑42.13	1	0.40	0	0.00
IX	336	310	↑8.39	2	0.60	1	0.32
X	368	245	↑50.20	0	0.00	0	0.00
XI	123	68	↑80.88	2	1.63	2	2.94
XII	94	193	↓-51.30	0	0.00	0	0.00
ARMM	41	44	↓-6.82	0	0.00	0	0.00
CAR	493	710	↓-30.56	0	0.00	0	0.00
CARAGA	502	528	↓-4.92	0	0.00	0	0.00
NCR	49	133	↓-63.16	0	0.00	0	0.00
Philippines	5338	5344	↓-0.11	27	0.51	30	0.56

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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	5,338	27	0.51	5,344		↓-0.11
Confirmed Cholera	13	0	0.00	18		↓-27.78
Confirmed Rotavirus	709	0	0.00	681		↑4.11
Hepatitis A	159	0	0.00	314		↓-49.36
Typhoid	6,256	7	0.11	10,279		↓-39.14

Fig. 1 Acute Bloody Diarrhea Cases by Morbidity Week  
Philippines, as of May 6, 2017  
2016 vs 2017\*

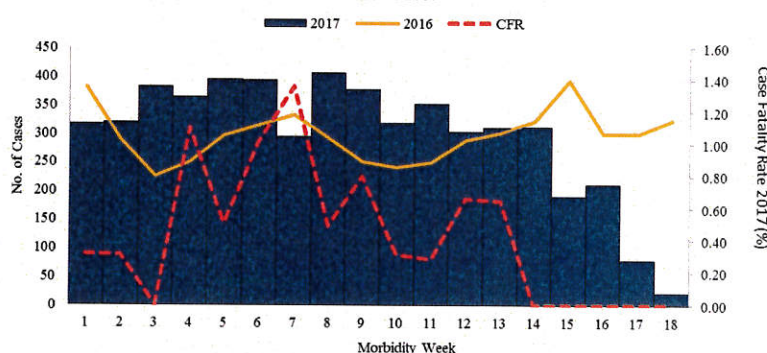


Fig. 2 Acute Bloody Diarrhea Cases by Region and Outcome (N=5,338)  
Philippines, as of May 6, 2017

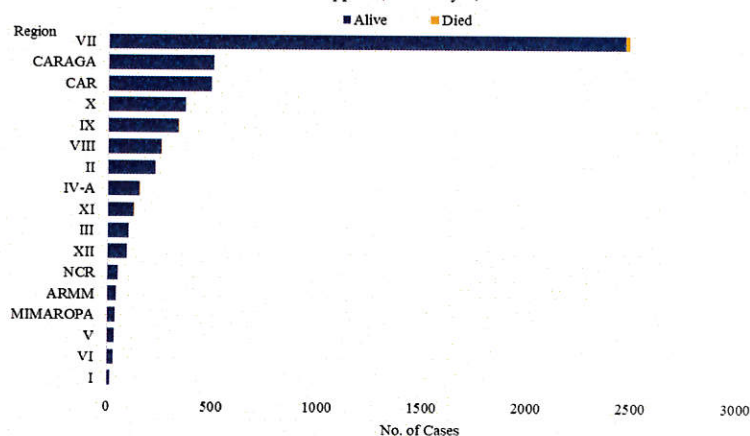
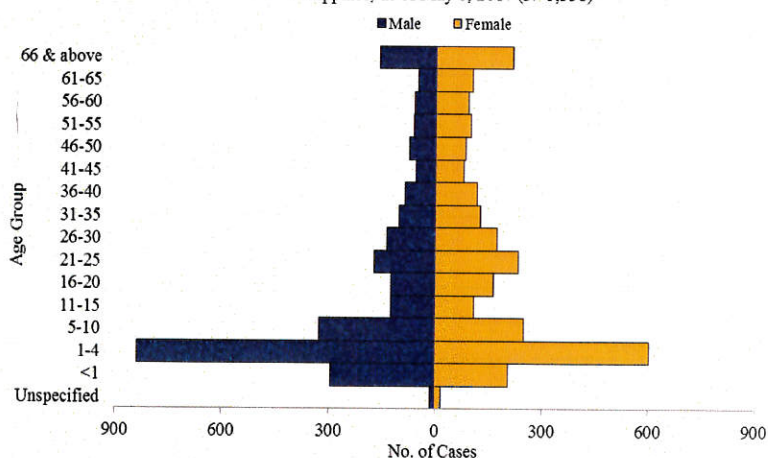


Fig. 3 Acute Bloody Diarrhea Cases by Age Group and Sex  
Philippines, as of May 6, 2017 (N=5,338)







## II. Cholera

### Trend in the Philippines

A total of 1,053 reported cholera cases nationwide from January 1 to May 6, 2017. Among which, 9 deaths were reported (CFR=0.85%). Of the reported cases, 13 (1.23%) cases were laboratory confirmed cholera, no deaths reported (Table 1).

### Geographical Distribution

Confirmed cases were from the following regions: Region V (77%), Region XI (15%), and Region VI (8%) (Fig.5 and Table 4).

### Profile of Cases

Ages of confirmed cases ranged from 1 year to 47 years old (median= 3 years). Majority of the confirmed cases were male (61.5%). The most affected age group were from 1 year to 4 years (62%) (Fig.6).

### Further Analysis

A total of 45 (4%) samples were referred for testing. Of these, 13 (29%) were laboratory confirmed for *vibrio cholerae*. The organisms identified among confirmed cases were *vibrio cholerae* (77%), *vibrio cholerae* *ogawa* biotype *el tor* (15%), and *vibrio cholerae* *ogawa* (8%) (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	0	0.00	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	0	10	↓1000.00	0	0.00	0	0.00
MIMAROPA	0	0	0.00	0	0.00	0	0.00
V	0	1	↓100.00	0	0.00	0	0.00
VI	1	0	↑100.00	0	0.00	0	0.00
VII	10	0	↑1000.00	0	0.00	0	0.00
VIII	0	7	↓700.00	0	0.00	0	0.00
IX	0	0	0.00	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	0	0	0.00	0	0.00	0	0.00
ARMM	0	0	0.00	0	0.00	0	0.00
CAR	0	0	0.00	0	0.00	0	0.00
CARAGA	0	0	0.00	0	0.00	0	0.00
NCR	0	0	0.00	0	0.00	0	0.00
Philippines	13	18	↓27.78	0	0.00	0	0.00

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Fig. 4 Cholera Cases by Morbidity Week and Case Classification  
Philippines, as of May 6, 2017  
2016 vs 2017\*

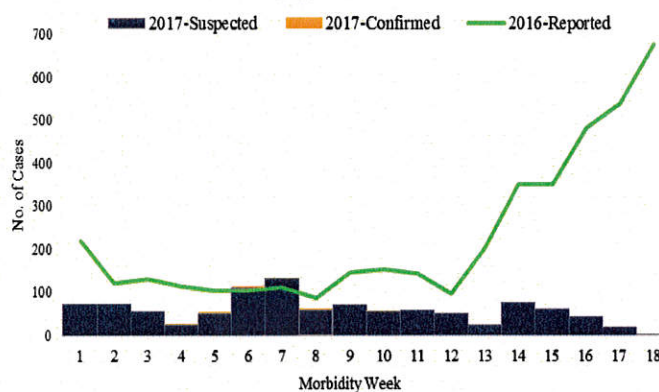


Fig. 5 Cholera Cases by Region and Case Classification (N=1,053)  
Philippines, as of May 6, 2017

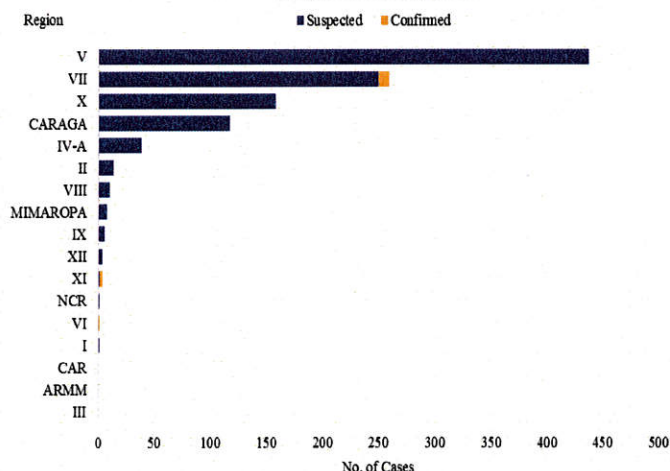


Fig. 6 Cholera Cases by Age Group, Sex and Case Classification (N=1,053)  
Philippines, as of May 6, 2017

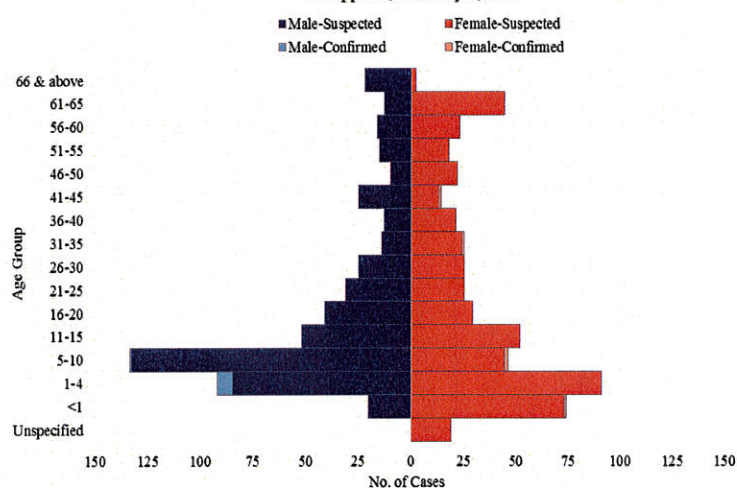


Table 3. Organisms in Cholera Cases (n=13)

Organism	Cases	%
<i>Vibrio Cholerae</i>	10	77
<i>Vibrio Cholerae</i> <i>Ogawa</i> Biotype <i>El Tor</i>	2	15
<i>Vibrio Cholerae</i> <i>Ogawa</i>	1	8
Total	13	100





### III. Hepatitis A

#### Trend in the Philippines

A total of 159 Hepatitis A cases reported nationwide from January 1 to May 6, 2017 with no reported deaths. This is 49.36% lower compared to the same time period last year (314) (Table 1).

#### Geographical Distribution

Most of the cases were from the following regions: Region VII (18.2%), Region X (13.8%), NCR and Region VI (12.6%), and Region IX and ARMM (5.7%) (Fig.8 and Table 5).

#### Profile of Cases

Ages of cases ranged from less than 1 month to 84 years old (median= 23 years). Majority of the confirmed cases were male (67%). The most affected age group were from 16 to 20 years (16%) (Fig.9).

#### Further Analysis

A total of 159 (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	7	3	↑133.33	0	0.00	0	0.00
II	0	2	↓200.00	0	0.00	0	0.00
III	8	8	→0.00	0	0.00	0	0.00
IV-A	8	18	↓55.56	0	0.00	0	0.00
MIMAROPA	0	12	↓1200.00	0	0.00	0	0.00
V	7	4	↑75.00	0	0.00	0	0.00
VI	20	40	↓50.00	0	0.00	0	0.00
VII	29	103	↓71.84	0	0.00	1	0.97
VIII	3	9	↓66.67	0	0.00	0	0.00
IX	9	28	↓67.86	0	0.00	0	0.00
X	22	21	↑4.76	0	0.00	0	0.00
XI	1	7	↓85.71	0	0.00	0	0.00
XII	6	11	↓45.45	0	0.00	0	0.00
ARMM	9	12	↓25.00	0	0.00	0	0.00
CAR	3	3	→0.00	0	0.00	0	0.00
CARAGA	7	6	↑16.67	0	0.00	0	0.00
NCR	20	27	↓25.93	0	0.00	1	3.70
Philippines	159	314	↓49.36	0	0.00	2	0.64

Fig. 7 Hepatitis A Cases by Morbidity Week  
Philippines, as of May 6, 2017  
2016 vs 2017\*

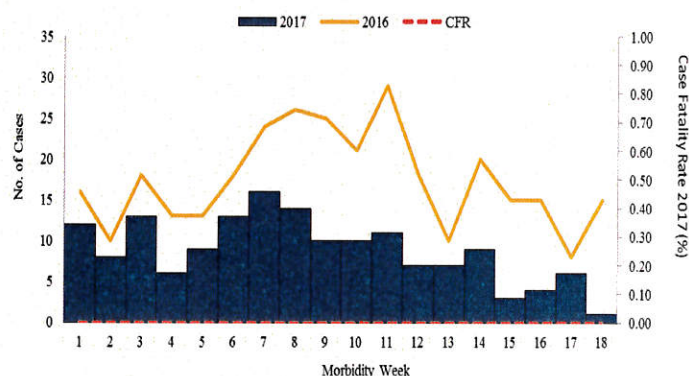


Fig. 8 Hepatitis A Cases by Region (N=159)  
Philippines, as of May 6, 2017

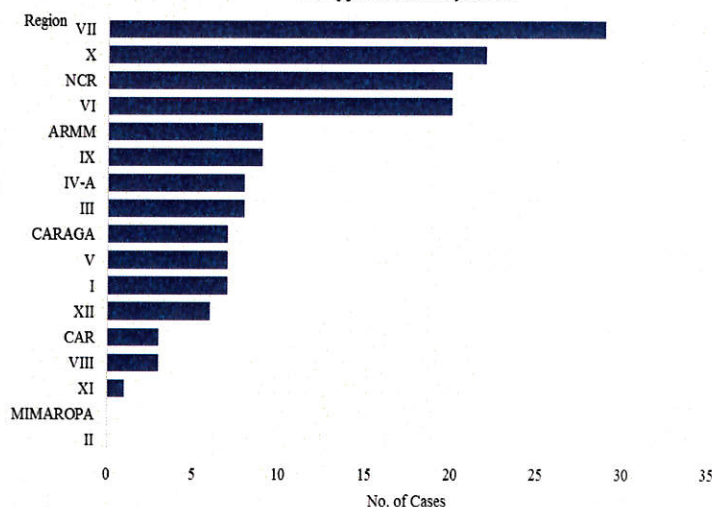
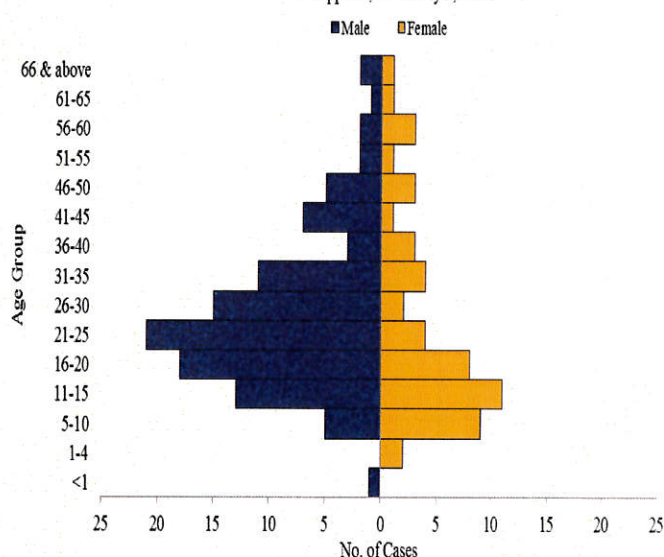


Fig. 9 Hepatitis A Cases by Age Group and Sex (N=159)  
Philippines, as of May 6, 2017







#### IV. Rotavirus

##### Trend in the Philippines

A total of 1,589 reported rotavirus cases nationwide from January 1 to May 6, 2017. Among which, 9 deaths were reported (CFR=0.57%). Of the reported cases, 709 (44.62%) cases were laboratory confirmed rotavirus, no deaths reported. This is 4.1% higher compared to the same time period last year (681) (Table 6).

##### Geographical Distribution

Confirmed cases were mostly from the following regions: Region I (41.04%), Region VI (16.64%), CARAGA (10.01%), Region XII (6.91%) and ARMM (6.91%) (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 (55%). Most of the confirmed cases belonged to 1 year old (35.68%) (Fig. 12).

##### Further Analysis

A total of 1,285 (81%) samples were tested. Of these, 709 (55%) were laboratory confirmed for rotavirus, 478 (37%) were negative. There were 98 (8%) pending results.

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

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR (%)	2016	CFR (%)
I	291	172	▲ 69.19	0	0.00	1	0.58
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	2	▲ 300.00	0	0.00	0	0.00
MIMAROPA	40	1	▲ 4000.00	0	0.00	0	0.00
V	16	13	▲ 23.08	0	0.00	0	0.00
VI	118	131	▼ -9.92	0	0.00	0	0.00
VII	1	0	● 0.00	0	0.00	0	0.00
VIII	0	0	● 0.00	0	0.00	0	0.00
IX	0	31	▼ -100.00	0	0.00	0	0.00
X	0	0	● 0.00	0	0.00	0	0.00
XI	0	0	● 0.00	0	0.00	0	0.00
XII	49	89	▼ -44.94	0	0.00	0	0.00
ARMM	49	110	▼ -55.45	0	0.00	0	0.00
CAR	0	0	● 0.00	0	0.00	0	0.00
CARAGA	71	51	▲ 39.22	0	0.00	0	0.00
NCR	69	80	▼ -13.75	0	0.00	0	0.00
Philippines	709	681	▲ 4.11	0	0.00	1	0.15

Fig. 10 Confirmed Rotavirus Cases by Morbidity Week and Case Classification, Philippines, as of May 6, 2017  
2017\* vs 2016

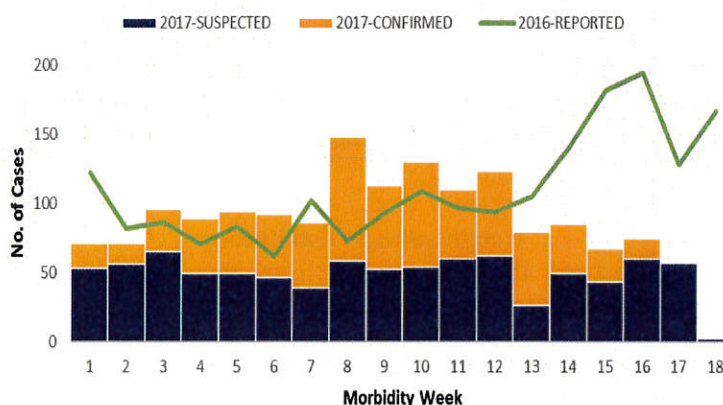


Fig. 11 Rotavirus Cases by Region and Case Classification (N=1,589) Philippines, as of May 6, 2017

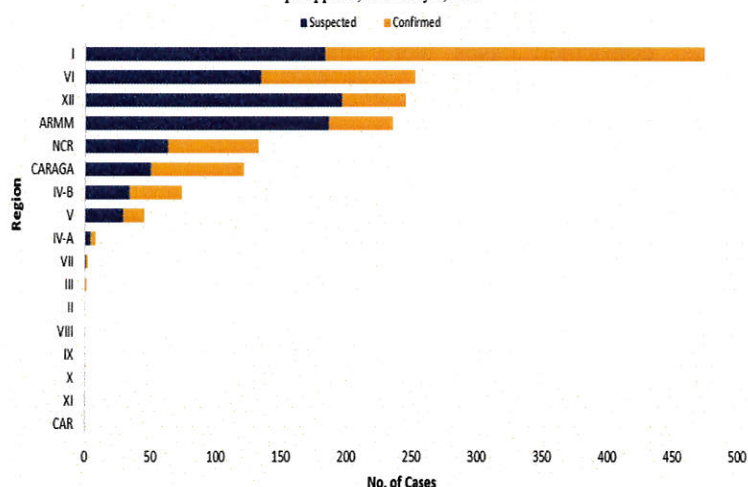
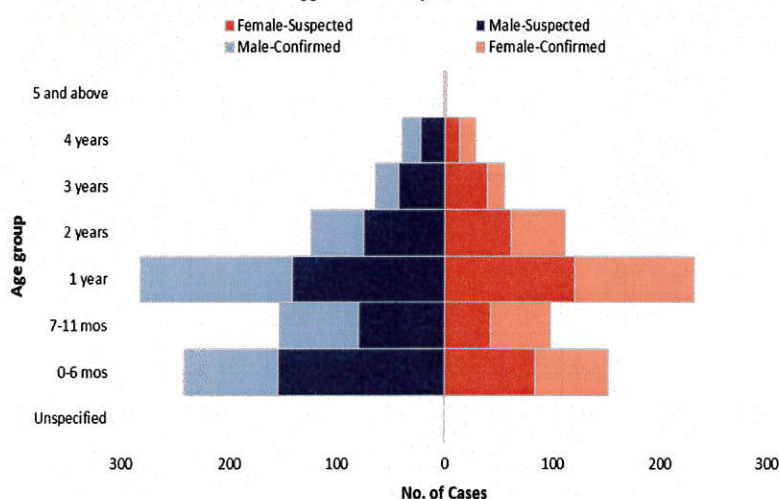


Fig. 12 Rotavirus Cases by Age group, Sex and Case Classification (N=1,589) Philippines, as of May 6, 2017







## V. Typhoid

### Trend in the Philippines

A total of 6,256 reported typhoid cases were reported nationwide from January 1 to May 6, 2017 with 7 deaths (CFR=0.11%). This is 39.14% lower compared to the same time period last year (10,279) (Table 1). Of the reported cases, 96 (1.53%) cases were confirmed typhoid.

### Geographical Distribution

Most of the reported cases were from the following regions: Region X (20.91%), XII (10.21%), Region VI (9.37%), CAR (8.02%), and Region IVA (7.02%). However, the top 5 regions with confirmed typhoid case were the following: NCR (15.63%), Region VII (13.54%), Region IVA and Region X (12.50), and Region VIII (11.46%) (Fig.14 and Table 7).

### Profile of Cases

Ages of cases ranged from less than 1 month to 97 years old (median= 17 years). Majority of cases were male (51.98%). The most affected age group were from 5 to 10 years old (18.46%) (Fig.15).

### Further Analysis

A total of 5,058 (81%) samples were referred for testing. Of these, 4,393 (87%) were positive for tubex, typhi dot, widal and RDT, 96 (2%) were tested with positive culture for salmonella typhi, and 570 (11%) 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	325	598	↓ -45.65	0	0.00	0	0.00
II	167	279	↓ -40.14	1	0.60	0	0.00
III	142	441	↓ -67.80	0	0.00	0	0.00
IV-A	439	852	↓ -48.47	0	0.00	1	0.12
MIMAROPA	132	207	↓ -36.23	1	0.76	0	0.00
V	135	142	↓ -4.93	1	0.74	0	0.00
VI	586	886	↓ -33.86	0	0.00	1	0.11
VII	338	390	↓ -13.33	2	0.59	3	0.77
VIII	114	283	↓ -59.72	0	0.00	0	0.00
IX	421	653	↓ -35.53	1	0.24	1	0.15
X	1,308	1,977	↓ -33.84	0	0.00	1	0.05
XI	77	112	↓ -31.25	0	0.00	0	0.00
XII	639	1,329	↓ -51.92	1	0.16	0	0.00
ARMM	396	463	↓ -14.47	0	0.00	1	0.22
CAR	502	1,181	↓ -57.49	0	0.00	1	0.08
CARAGA	366	342	↑ 7.02	0	0.00	0	0.00
NCR	169	144	↑ 17.36	0	0.00	0	0.00
Philippines	6256	10279	↓ -39.14	7	0.11	9	0.09

Fig. 13 Reported Typhoid Cases by Morbidity Week  
Philippines, as of May 6, 2017  
2016 vs 2017\*

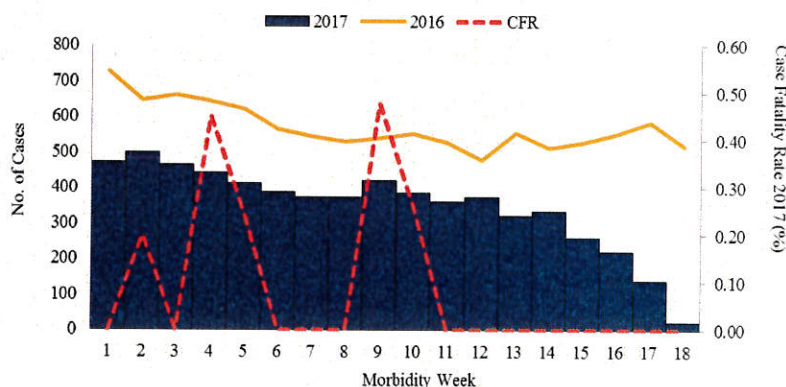


Fig. 14 Typhoid Cases by Region and Case Classification  
Philippines, as of May 6, 2017 (N=6,256)

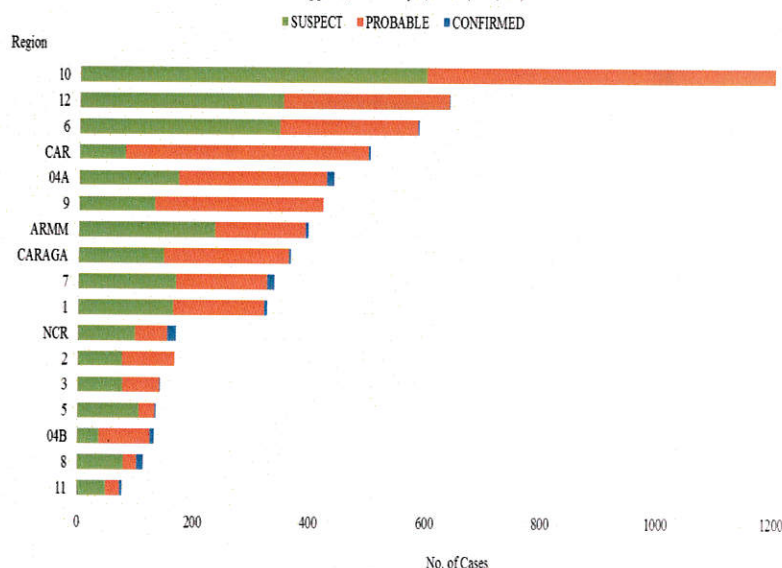
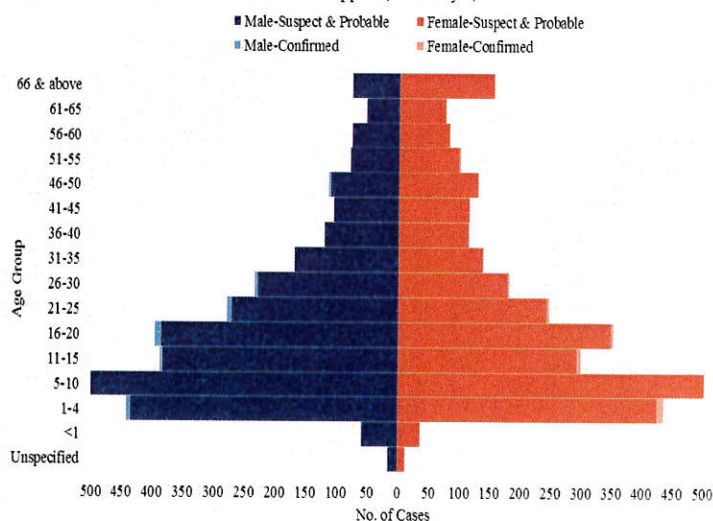


Fig. 15 Typhoid Cases by Age Group, Sex and Case Classification (N=6,256)  
Philippines, as of May 6, 2017







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