Department of Health
Epidemiology Bureau
Public Health Surveillance Division

Food and Waterborne Diseases
(January 1 to April 1, 2017)

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 3,548 acute bloody diarrhea cases were reported nationwide from January 1 to April 1, 2017. This is 4.34% lower compared to the same time period last year (3,709) (Table 1). There were 16 reported deaths (CFR=0.45%) (Table 2).

Geographical Distribution

Most of the reported cases were from the following regions: Region VII (47.41%), CAR (10.06%), Region X (7.19%), Region IX (6.54%), and CARAGA (6.12%) (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 female (50.1%). The most affected age group were from 1 year to 4 years (27%) (Fig.3).

Further Analysis

A total of 1,965 (55%) samples were referred for testing. Of these, 1,718 (87%) were laboratory confirmed with different organisms. The top organisms identified were *entamoeba histolytica* (89.6%), *trophozoites* (3.5%), and *escherichia coli* (2.5%).

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

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR (%)	2016	CFR (%)
I	5	19	⇩ -73.68	0	0.00	0	0.00
II	129	341	⇩ -62.17	0	0.00	0	0.00
III	64	80	⇩ -20.00	0	0.00	0	0.00
IV-A	108	53	⇧ 103.77	2	1.85	0	0.00
MIMAROPA	32	23	⇧ 39.13	0	0.00	0	0.00
V	31	6	⇧ 416.67	0	0.00	0	0.00
VI	25	25	⇨ 0.00	0	0.00	0	0.00
VII	1682	1488	⇧ 13.04	9	0.54	16	1.08
VIII	214	137	⇧ 56.20	1	0.47	0	0.00
IX	232	192	⇧ 20.83	2	0.86	1	0.52
X	255	191	⇧ 33.51	0	0.00	0	0.00
XI	105	41	⇧ 156.10	2	1.90	2	4.88
XII	39	107	⇩ -63.55	0	0.00	0	0.00
ARMM	23	19	⇧ 21.05	0	0.00	0	0.00
CAR	357	502	⇩ -28.88	0	0.00	0	0.00
CARAGA	217	394	⇩ -44.92	0	0.00	0	0.00
NCR	30	91	⇩ -67.03	0	0.00	0	0.00
Philippines	**3548**	**3709**	⇩ **-4.34**	**16**	**0.45**	**19**	**0.51**

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	3,548	16	0.45	3,709	⇩ -4.34
Confirmed Cholera	13	0	0.00	13	⇨ 0.00
Confirmed Rotavirus	260	0	0.00	372	⇩ -30.11
Hepatitis A	122	0	0.00	241	⇩ -49.38
Typhoid	4,275	6	0.14	7,585	⇩ -43.64

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

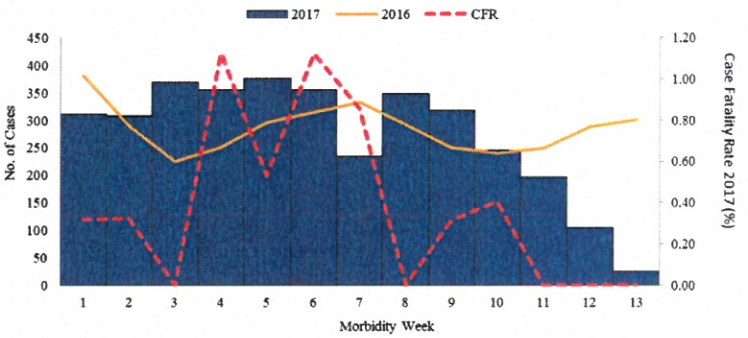


Fig. 2 Acute Bloody Diarrhea Cases by Region and Outcome (N=3,548)
Philippines, as of April 1, 2017

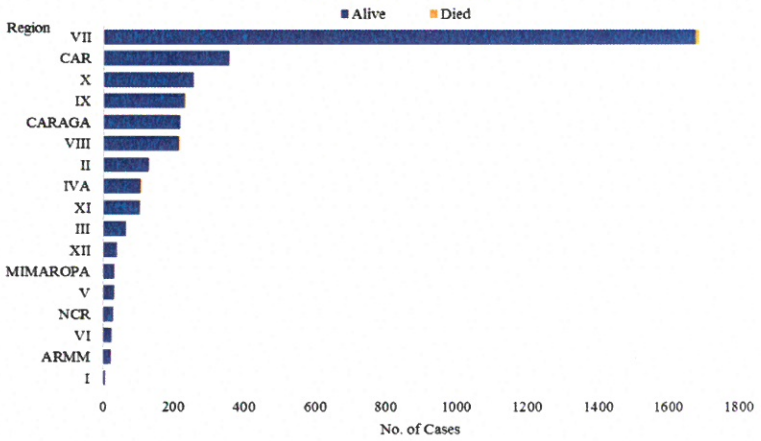
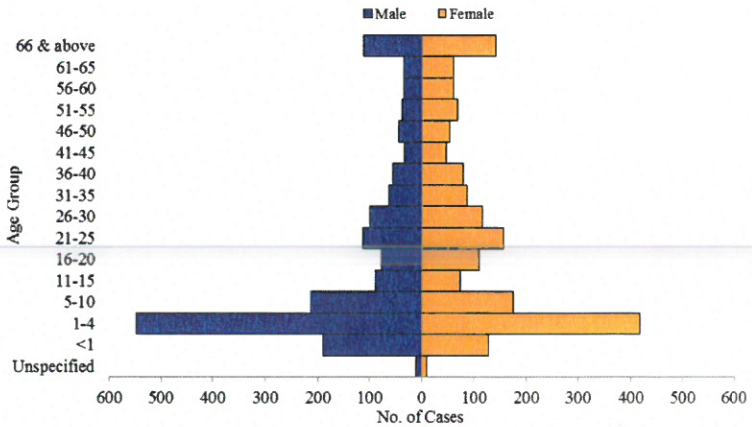


Fig. 3 Acute Bloody Diarrhea Cases by Age Group and Sex
Philippines, as of April 1, 2017 (N=3,548)



II. Cholera

Trend in the Philippines

A total of 778 reported cholera cases nationwide from January 1 to April 1, 2017. Among which, 9 deaths were reported (CFR=1.16%). Of the reported cases, 13 (1.67%) cases were laboratory confirmed cholera, no deaths reported (Table 1).

Geographical Distribution

Confirmed cases were from the following regions: Region VII (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 26 (3%) samples were referred for testing. Of these, 13 (50%) were laboratory confirmed for *vibrio cholerae*. The organisms identified among confimed 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	2	⇩-200.00	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**	**13**	**⇨ 0.00**	**0**	**0.00**	**0**	**0.00**

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

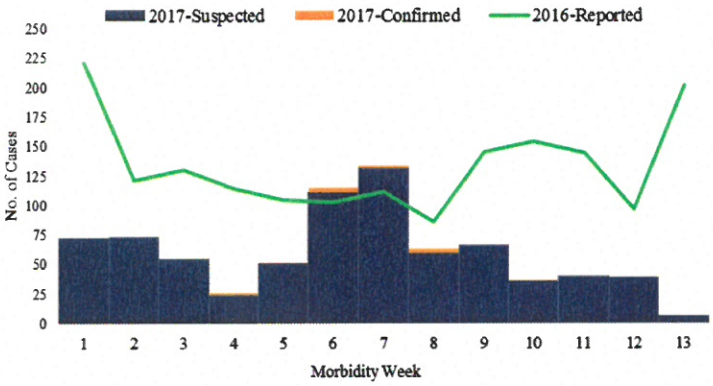


Fig. 5 Cholera Cases by Region and Case Classification (N=778)
Philippines, as of April 1, 2017

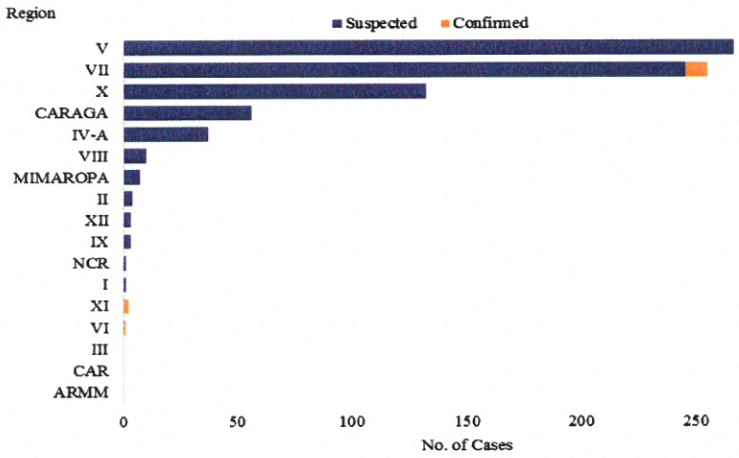


Fig. 6 Cholera Cases by Age Group, Sex and Case Classification (N=778)
Philippines, as of April 1, 2017

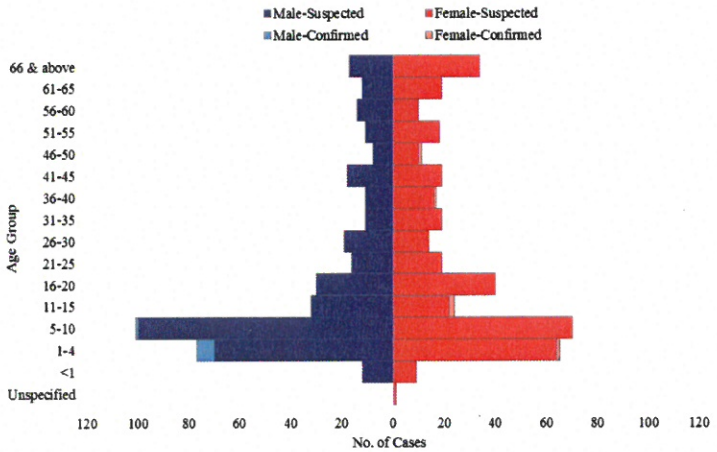


Table 3. Organisms in Cholera Cases (n=13)

Organism	Cases	%
Vibrio Cholerae	10	77
Vibrio Cholerae Ogawa Biotype El Tor	2	15
Vibrio Cholerae Ogawa	1	8
Total	**13**	**100**

III. Hepatitis A

Trend in the Philippines

A total of 122 Hepatitis A cases reported nationwide from January 1 to April 1, 2017 with no reported deaths. This is 49.38% lower compared to the same time period last year (241) (Table 1).

Geographical Distribution

Most of the cases were from the following regions: Region VII (17%), NCR and Region VI (13%), Region X (12%), and Region IX (7%) (Fig.8 and Table 5).

Profile of Cases

Ages of cases ranged from less than 1 month to 66 years old (median= 22 years). Majority of the confirmed cases were male (68%). The most affected age group were from 16 to 20 years (18%) (Fig.9).

Further Analysis

A total of 122 (100%) samples were reactive for IgM anti-HAV.

Fig. 7 Hepatitis A Cases by Morbidity Week
Philippines, as of April 1, 2017
2016 vs 2017*

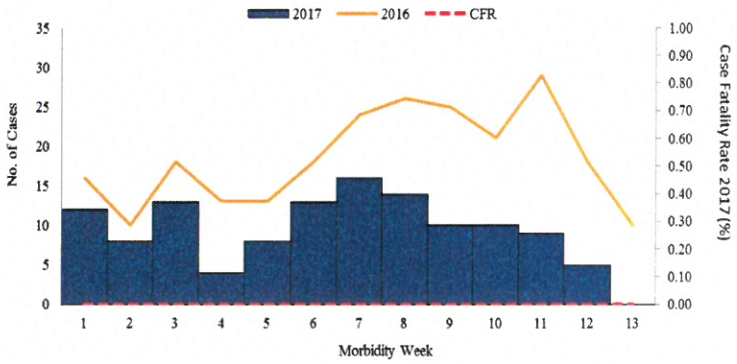


Fig. 8 Hepatitis A Cases by Region (N=122)
Philippines, as of April 1, 2017

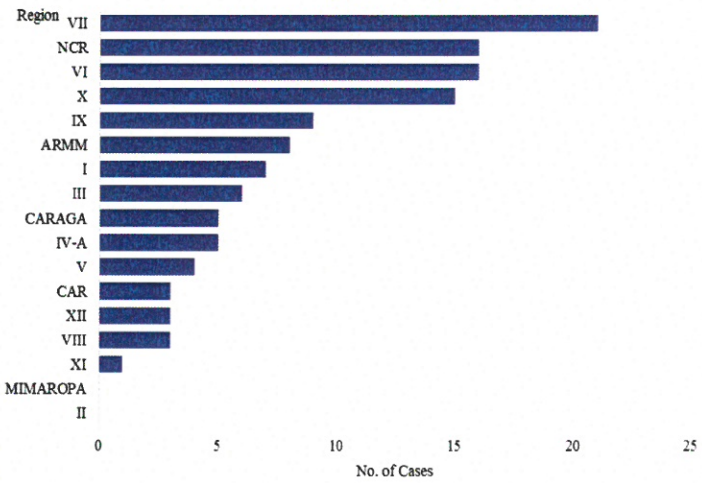
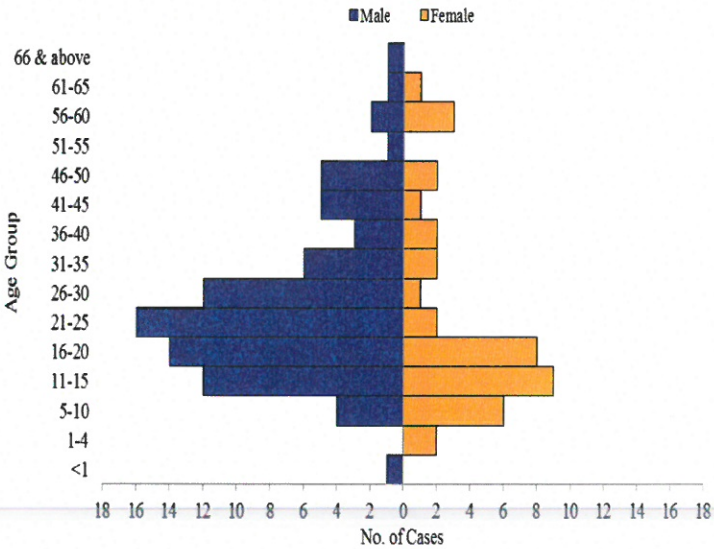


Table 5. Hepatitis A Cases & Deaths by Region
Philippines, 2017* vs 2016

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR (%)	2016	CFR (%)
I	7	2	⇧250.00	0	0.00	0	0.00
II	0	2	⇩-200.00	0	0.00	0	0.00
III	6	5	⇧ 20.00	0	0.00	0	0.00
IV-A	5	16	⇩-68.75	0	0.00	0	0.00
MIMAROPA	0	11	⇩-1100.00	0	0.00	0	0.00
V	4	2	⇧100.00	0	0.00	0	0.00
VI	16	29	⇩-44.83	0	0.00	0	0.00
VII	21	84	⇩-75.00	0	0.00	0	0.00
VIII	3	4	⇩-25.00	0	0.00	0	0.00
IX	9	23	⇩-60.87	0	0.00	0	0.00
X	15	18	⇩-16.67	0	0.00	0	0.00
XI	1	3	⇩-66.67	0	0.00	0	0.00
XII	3	8	⇩-62.50	0	0.00	0	0.00
ARMM	8	8	⇨ 0.00	0	0.00	0	0.00
CAR	3	1	⇧200.00	0	0.00	0	0.00
CARAGA	5	4	⇧ 25.00	0	0.00	0	0.00
NCR	16	21	⇩-23.81	0	0.00	1	4.76
Philippines	**122**	**241**	**⇩-49.38**	**0**	**0.00**	**1**	**0.41**

Fig. 9 Hepatitis A Cases by Age Group and Sex (N=122)
Philippines, as of April 1, 2017



IV. Rotavirus

Trend in the Philippines

A total of 1,028 reported rotavirus cases nationwide from January 1 to April 1, 2017. Among which, 5 deaths were reported (CFR=0.49%). Of the reported cases, 260 (25.29%) cases were laboratory confirmed rotavirus, no deaths reported. This is 30.11% lower compared to the same time period last year (372) (Table 6).

Geographical Distribution

Confirmed cases were mostly from the following regions: Region I (38.46%), NCR (21.92%), Region VI (20.38%), CARAGA (8.85%) and Region XII (3.85%) (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 (60.4%). Most of the confirmed cases belonged to 1 year old (36.54%) (Fig. 12).

Further Analysis

A total of 467 (45%) samples were tested. Of these, 260 (56%) were laboratory confirmed for *rotavirus* while 207 (44%) 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	100	70	⇧ 42.86	0	0.00	0	0.00
II	0	0	⇨ 0.00	0	0.00	0	0.00
III	0	1	⇩ -100.00	0	0.00	0	0.00
IV-A	3	0	⇧ 300.00	0	0.00	0	0.00
MIMAROPA	1	0	⇧ 100.00	0	0.00	0	0.00
V	7	2	⇧ 250.00	0	0.00	0	0.00
VI	53	61	⇩ -13.11	0	0.00	0	0.00
VII	0	0	⇨ 0.00	0	0.00	0	0.00
VIII	0	0	⇨ 0.00	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	0	0	⇨ 0.00	0	0.00	0	0.00
XII	10	62	⇩ -83.87	0	0.00	0	0.00
ARMM	6	78	⇩ -92.31	0	0.00	0	0.00
CAR	0	0	⇨ 0.00	0	0.00	0	0.00
CARAGA	23	40	⇩ -42.50	0	0.00	0	0.00
NCR	57	58	⇩ -1.72	0	0.00	0	0.00
Philippines	260	372	⇩ -30.11	0	0.00	0	0.00

Fig. 10 Confirmed Rotavirus Cases by Morbidity Week and Case Classification, Philippines, as of April 1, 2017
2016 vs 2017*

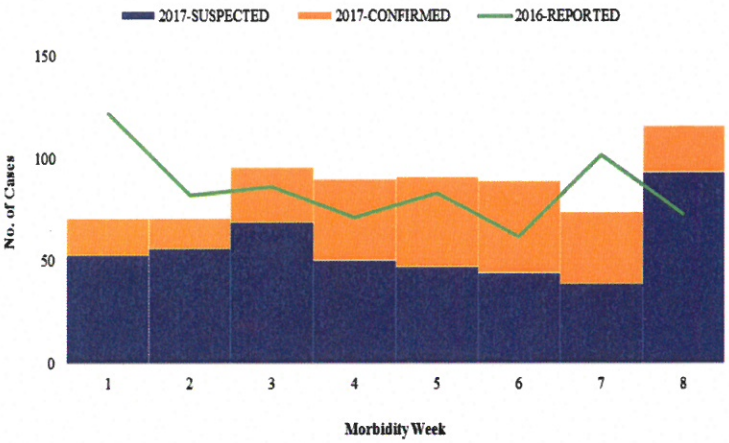


Fig. 11 Rotavirus Cases by Region and Case Classification (N=1,028)
Philippines, as of April 1, 2017

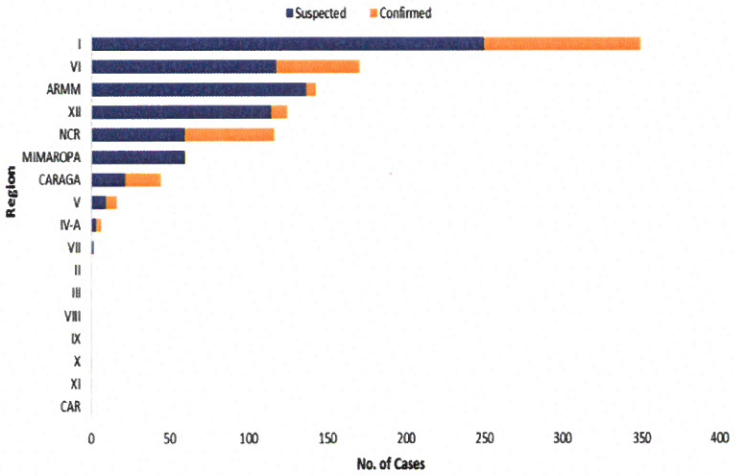
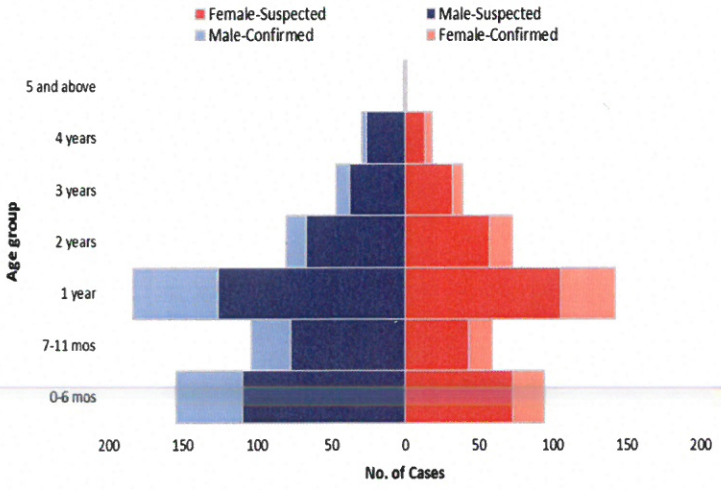


Fig. 12 Rotavirus Cases by Age group, Sex and Case Classification (N=1,028)
Philippines, as of April 1, 2017



V. Typhoid

Trend in the Philippines

A total of 4,275 reported typhoid cases were reported nationwide from January 1 to April 1, 2017 with 6 deaths (CFR=0.14%). This is 43.64% lower compared to the same time period last year (7,585) (Table 1). Of the reported cases, 70 (1.6%) cases were confirmed typhoid.

Geographical Distribution

Most of the reported cases were from the following regions: Region X (22.99%), VI (10.39%), CAR (8.96%), Region XII (8.56%), and Region IVA (7.77%). However, the top 5 regions with confirmed typhoid case were the following: NCR (21.43%), Region VIII (37.14%), Region IVA and Region VII (12.86), and Region IVB (10.00%) (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 (52.1%). The most affected age group were from 5 to 10 years old (19.06%) (Fig.15).

Further Analysis

A total of 3,450 (81%) samples were referred for testing. Of these, 2,972 (86%) were positive for tubex, typhi dot and widal, 70 (2%) were tested with positive culture for salmonella typhi, and 408 (12%) were tested negative.

Fig. 13 Reported Typhoid Cases by Morbidity Week
Philippines, as of April 1, 2017
2016 vs 2017*

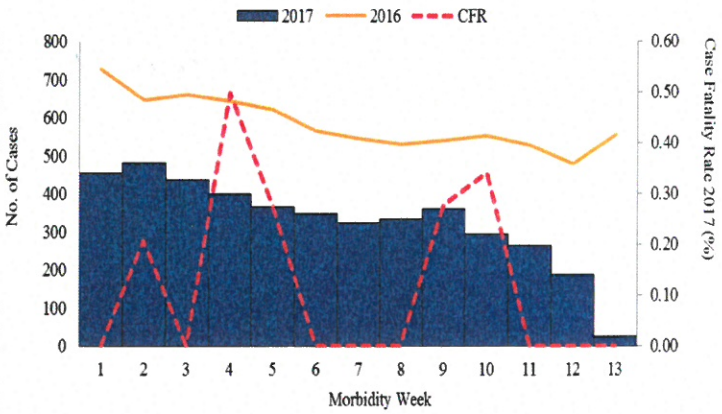


Fig. 14 Typhoid Cases by Region and Case Classification
Philippines, as of April 1, 2017 (N=4,275)

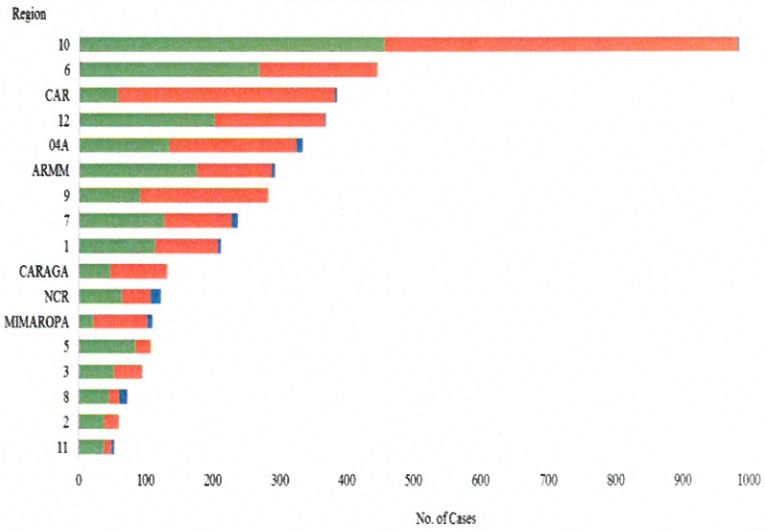
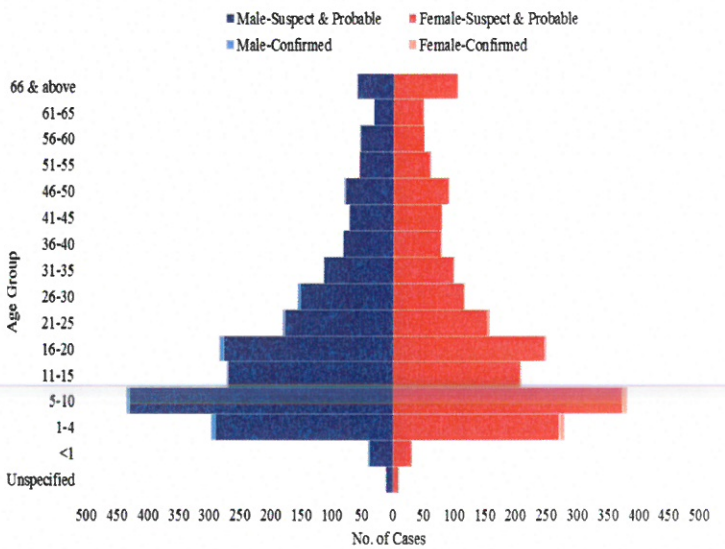


Table 7. Typhoid Cases & Deaths by Region
Philippines, 2017* vs 2016

Region	Cases			Deaths			
	2017	2016	% Change	2017	CFR (%)	2016	CFR (%)
I	211	448	⇩ -52.90	0	0.00	0	0.00
II	60	222	⇩ -72.97	1	1.67	0	0.00
III	94	335	⇩ -71.94	0	0.00	0	0.00
IV-A	332	712	⇩ -53.37	0	0.00	1	0.14
MIMAROPA	109	144	⇩ -24.31	1	0.92	0	0.00
V	107	99	⇧ 8.08	1	0.93	0	0.00
VI	444	694	⇩ -36.02	0	0.00	0	0.00
VII	236	268	⇩ -11.94	1	0.42	3	1.12
VIII	72	230	⇩ -68.70	0	0.00	0	0.00
IX	281	519	⇩ -45.86	1	0.36	1	0.19
X	983	1,431	⇩ -31.31	0	0.00	1	0.07
XI	53	81	⇩ -34.57	0	0.00	0	0.00
XII	366	916	⇩ -60.04	1	0.27	0	0.00
ARMM	291	299	⇩ -2.68	0	0.00	1	0.33
CAR	383	807	⇩ -52.54	0	0.00	1	0.12
CARAGA	131	273	⇩ -52.01	0	0.00	0	0.00
NCR	122	107	⇧ 14.02	0	0.00	0	0.00
Philippines	**4275**	**7585**	⇩ **-43.64**	**6**	**0.14**	**8**	**0.11**

Fig. 15 Typhoid Cases by Age Group, Sex and Case Classification (N=4,275)
Philippines, as of April 1, 2017



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