



### Leptospirosis







Leptospirosis is a group of zoonotic bacterial diseases with variable manifestations. Disease transmission may be through: contact of skin, especially if abraded, or of mucous membranes with moist soil, vegetation contaminated with urine with infected animals or contaminated water as swimming, wading in flood waters, accidental immersion or occupational abrasion; direct contact with urine or tissues of infected animals.

**Table 1. Leptospirosis Cases in the Philippines, 2019\* vs 2018**

Region	2019		2018		Percent Change in Cases
	Cases	Deaths	Cases	Deaths	
Philippines	650	81	1555	176	↓ -58

### PIDSR Case Definition for Leptospirosis

<b>Suspected Case</b>	<p>A person who developed acute febrile illness with headache, myalgia and prostration associated with any of the following possibly after exposure to infected animals or an environment contaminated with animal urine</p> <ul style="list-style-type: none"><li>• Congunctival suffocation</li><li>• Meningeal irritation</li><li>• Anuria or Oliguria and/ or proteinuria</li><li>• Jaundice</li><li>• Hemorrhages (from intestines or lungs)</li><li>• Cardiac arrhythmia or failure</li><li>• Skin rash</li></ul>
<b>Probable Case</b>	<p>A suspected case in an ongoing epidemic or an environment contaminated with animal urine (e.g. wading in water floods, rice fields, drainage)</p>
<b>Confirmed Case</b>	<p>A suspected case that is laboratory confirmed.</p>

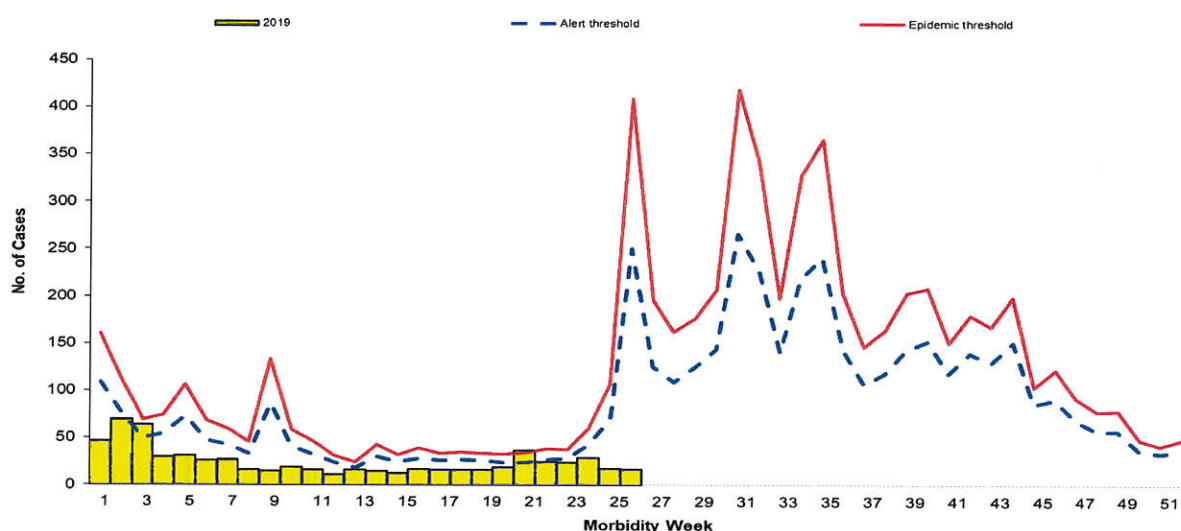
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### I. Trend in the Philippines

A total of **650** leptospirosis cases were reported nationwide from January 1 to June 29, 2019 [Figure 1]. This is **58%** lower compared to the same time period last year (**1,555**) [Table 2].

**Figure 1. Reported Leptospirosis Cases by Morbidity Week (N=650)  
Philippines, January 1 to June 29, 2019 Alert and Epidemic Threshold**



### II. Geographic Distribution of Cases

Most of the cases were from the following regions: **NCR** (188 or 29%), **REGION V** (88 or 14%), **REGION VI** (83 or 13%), **REGION II** (52 or 8%) and **REGION III** (48 or 7%). All regions showed a decrease in the number of reported cases this year except for Region V with 49% increase of cases.

**Table 2. Reported Leptospirosis Cases by Region,  
Philippines, June 2019\* (N=650) vs. June 2018\*\***

Region	2019		2018		Percent Change in Cases
	Cases	Deaths	Cases	Deaths	
<b>Philippines</b>	<b>650</b>	<b>81</b>	<b>1555</b>	<b>176</b>	<b>↓ 58</b>
I	23	5	64	13	↓ 64
II	52	5	68	4	↓ 24
III	48	4	71	4	↓ 32
IV-A	44	8	79	10	↓ 44
MIMAROPA	7	1	14	1	↓ 50
<b>V</b>	<b>88</b>	<b>4</b>	<b>59</b>	<b>3</b>	<b>↑ 49</b>
VI	83	9	242	32	↓ 66
VII	15	3	53	8	↓ 72
VIII	15	1	62	6	↓ 76
IX	16	4	87	6	↓ 82
X	14	1	35	5	↓ 60
XI	29	4	91	8	↓ 68
XII	4	0	8	2	↓ 50
ARMM	3	1	7	1	↓ 57
CAR	11	4	24	2	↓ 54
CARAGA	10	1	179	4	↓ 94
NCR	188	26	412	67	↓ 54

\*From period of January 1 to June 29, 2019

\*\*From period of January 1 to June 29, 2018

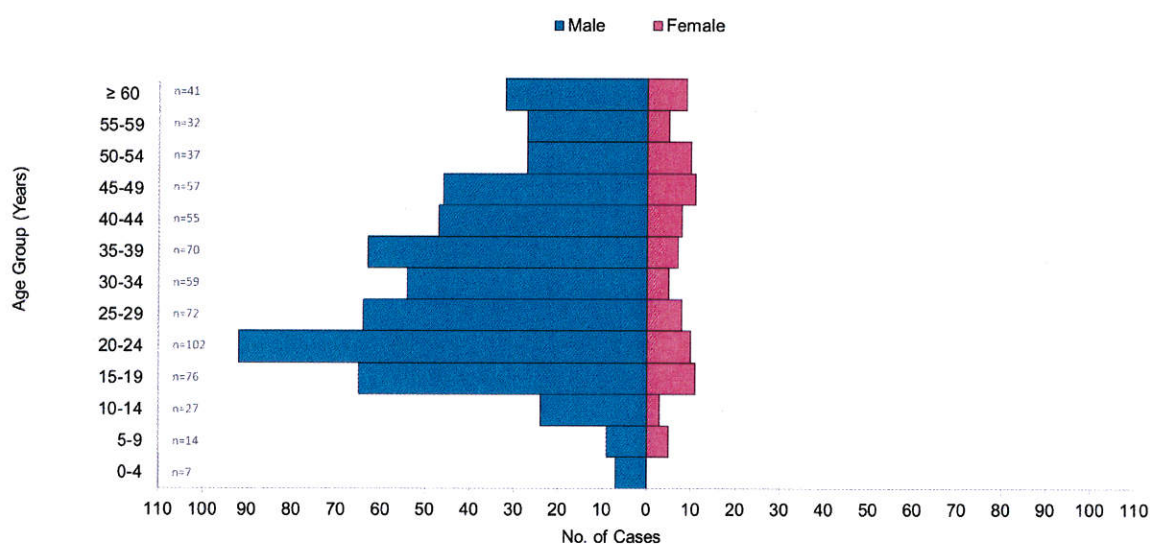




### III. Profile of Cases

Age of cases ranged from less than 1 year to 88 years (median = 32 years) [Figure 2]. Majority (558 or 86%) of cases were male. Most (102 or 16%) of the cases belonged to the age group of 20-24 years old. There were 81 deaths (CFR = 12.46%).

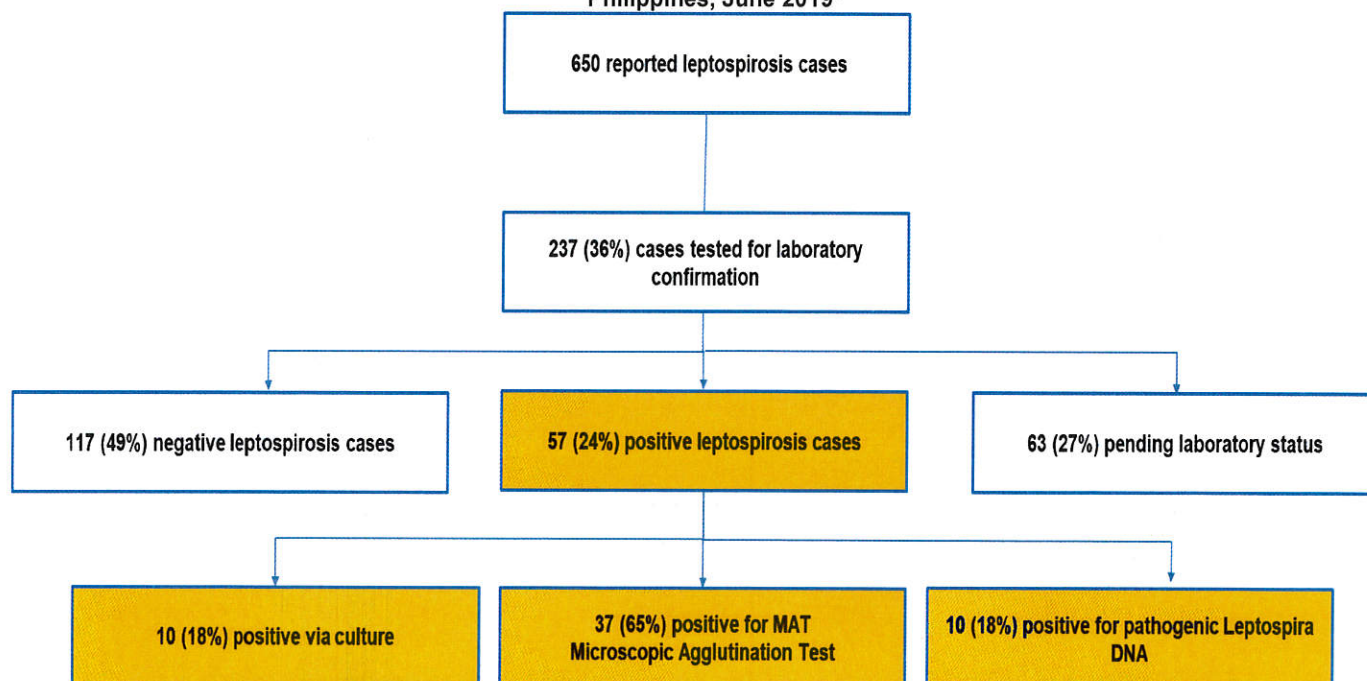
**Figure 2. Reported Leptospirosis Cases by Age Group and Sex (N=650)  
Philippines, June 2019\***



### IV. Laboratory Status of Leptospirosis Cases

Out of the 650 reported leptospirosis cases, 237 cases (36%) were tested for laboratory confirmation. Of these, 57 cases (24%) yielded positive results [Figure 3].

**Figure 3. Laboratory Status of Reported Leptospirosis Cases  
Philippines, June 2019\***



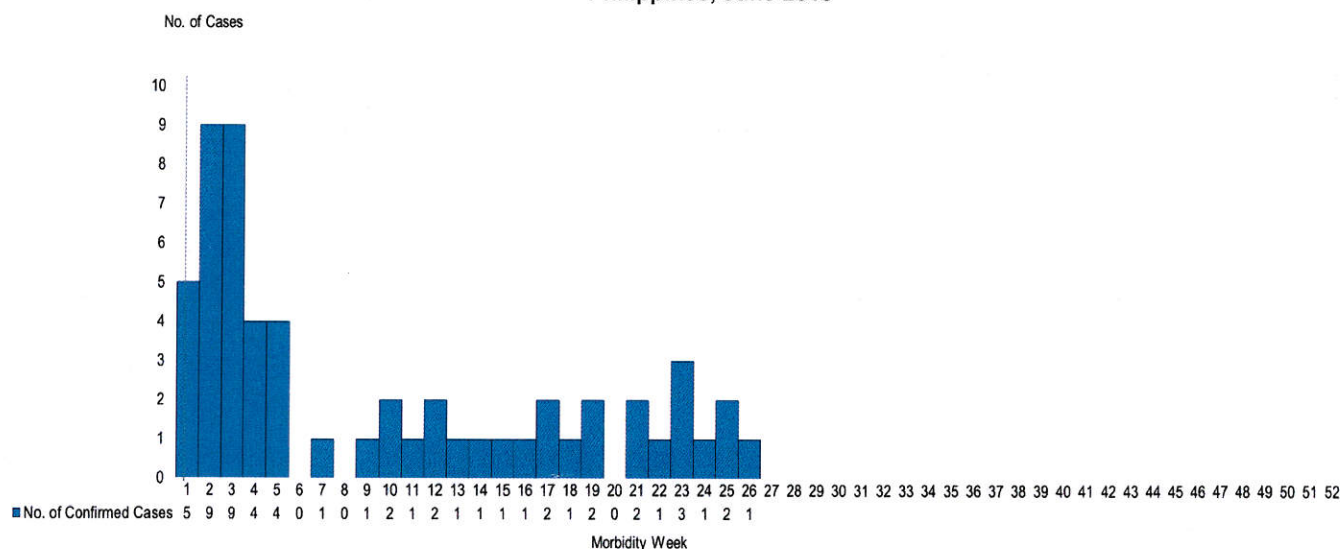
\*From period of January 1 to June 29, 2019



**V. Profile of Confirmed Leptospirosis Cases**

A total of **57** confirmed leptospirosis cases were reported nationwide from January 1 to June 29, 2019. Most of the cases (9 or 16%) were reported on Morbidity Week 2 and Morbidity Week 3 [Figure 4].

**Figure 4. Confirmed Leptospirosis by Morbidity Week (n=57)**  
 Philippines, June 2019\*



**VI. Geographic Distribution of Confirmed Leptospirosis Cases**

Most of the confirmed leptospirosis cases were from **NCR** (24 or 42%) followed by **REGION V** (12 or 21%). A total of four (4 deaths) were noted: two were from NCR (CFR 8%), one from Region II (CFR 14%) and one from ARMM (CFR 100%).

**Table 3. Confirmed Leptospirosis Cases by Region (n=57)**  
 Philippines, June 2019

Region	Cases	Deaths	CFR%
<b>PHILIPPINES</b>	<b>57</b>	<b>4</b>	<b>7.02</b>
I	3	0	0.00
II	7	1	14.29
IV-A	4	0	0.00
V	12	0	0.00
VI	5	0	0.00
VIII	1	0	0.00
ARMM	1	1	100.00
NCR	24	2	8.33

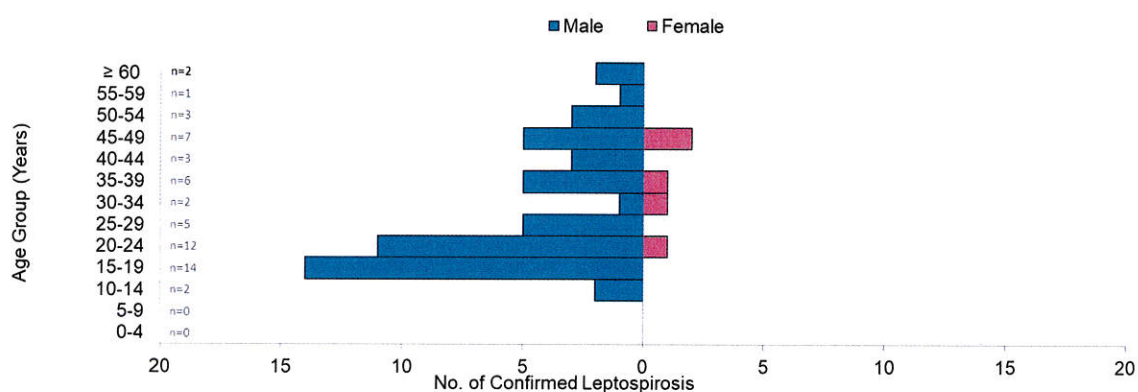
\*From period of January 1 to June 29, 2019



**VII. Sex and Age Group of Confirmed Leptospirosis Cases**

Age of confirmed leptospirosis cases ranged from 13 years to 70 years (median = 25 years). Majority (52 or 91% were male. Most (14 or 25%) of the cases belonged to the age group of 15-19 years old [Figure 5].

**Figure 5. Confirmed Leptospirosis Cases by Age Group and Sex (n=57)  
Philippines, June 2019\***



\*From period of January 1 to June 29, 2019





Figures 6-22. Leptospirosis Alert and Epidemic Thresholds per Region as of June, 2019

Fig. 6 Reported Leptospirosis Cases by Morbidity Week  
Region I, as of January 1-June 29, 2019 (n=23)

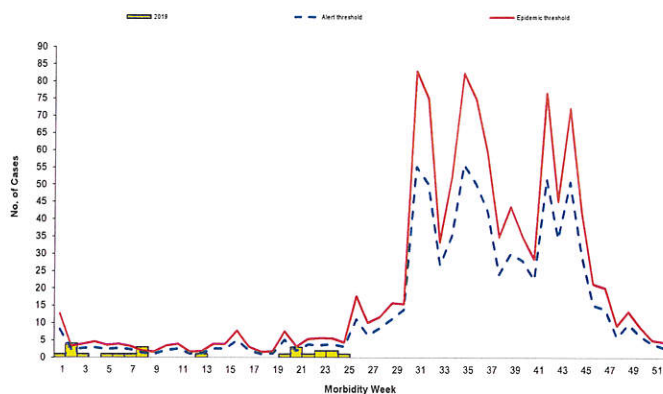


Fig. 8 Reported Leptospirosis Cases by Morbidity Week  
Region III, as of January 1-June 29, 2019 (n=48)

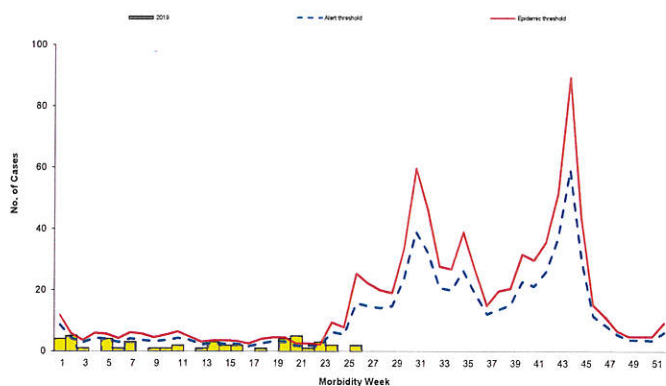


Fig. 10 Reported Leptospirosis Cases by Morbidity Week  
Region MiMaRoPa, as of January 1-June 29, 2019 (n=7)

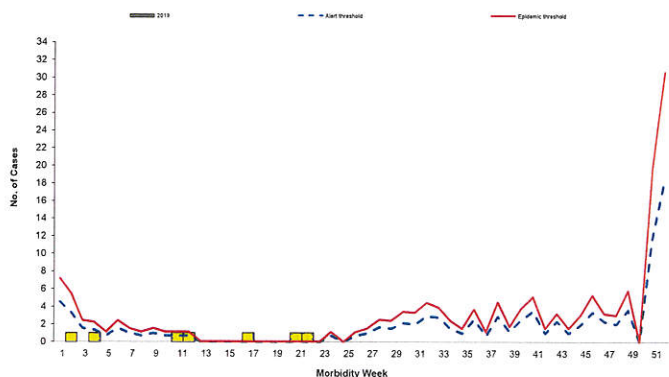


Fig. 7 Reported Leptospirosis Cases by Morbidity Week  
Region II, as of January 1-June 29, 2019 (n=52)

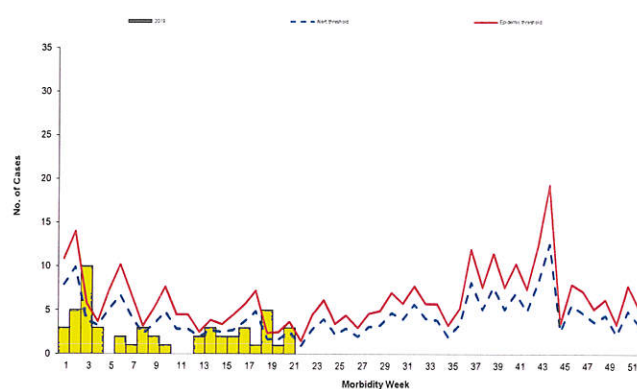


Fig. 9 Reported Leptospirosis Cases by Morbidity Week  
Region IV-A, as of January 1-June 29, 2019 (n=44)

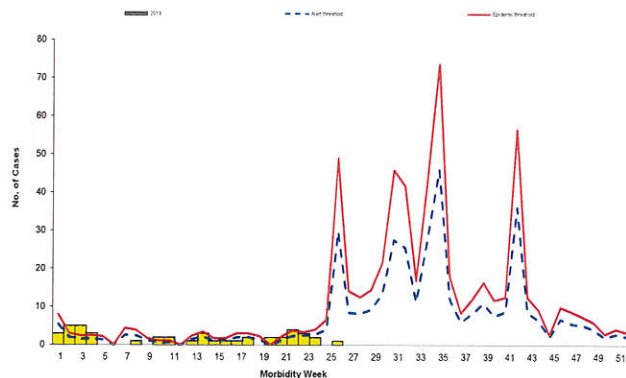
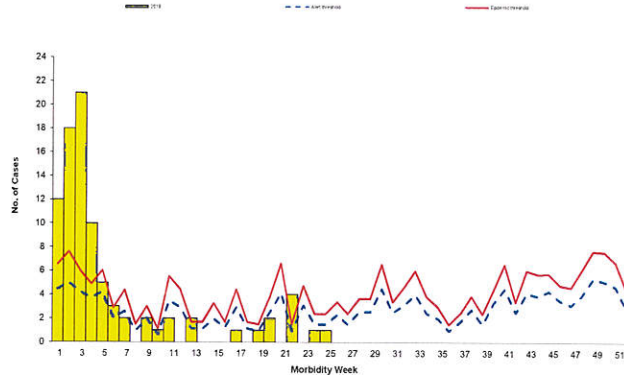


Fig. 11 Reported Leptospirosis Cases by Morbidity Week  
Region V, as of January 1-June 29, 2019 (n=88)





Figures 6-22. Leptospirosis Alert and Epidemic Thresholds per Region as of June 2019

Fig. 12 Reported Leptospirosis Cases by Morbidity Week  
Region VI, as of January 1-June 29, 2019 (n=83)

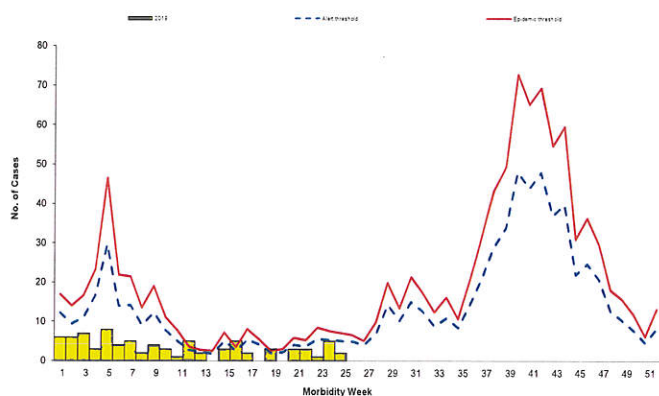


Fig. 13 Reported Leptospirosis Cases by Morbidity Week  
Region VII, as of January 1-June 29, 2019 (n=15)

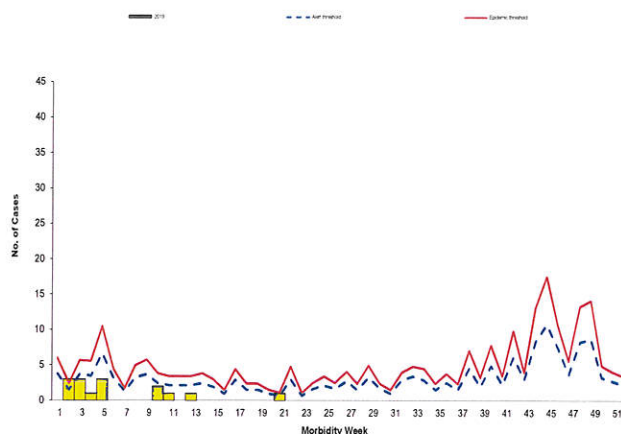


Fig. 14 Reported Leptospirosis Cases by Morbidity Week  
Region VIII, as of January 1-June 29, 2019 (n=15)

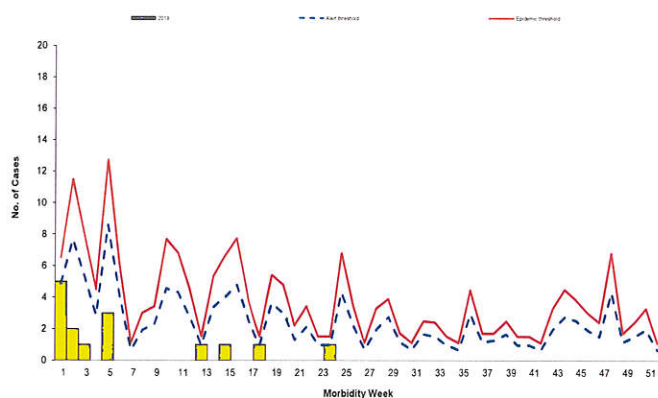


Fig. 15 Reported Leptospirosis Cases by Morbidity Week  
Region IX, as of January 1-June 29, 2019 (n=16)

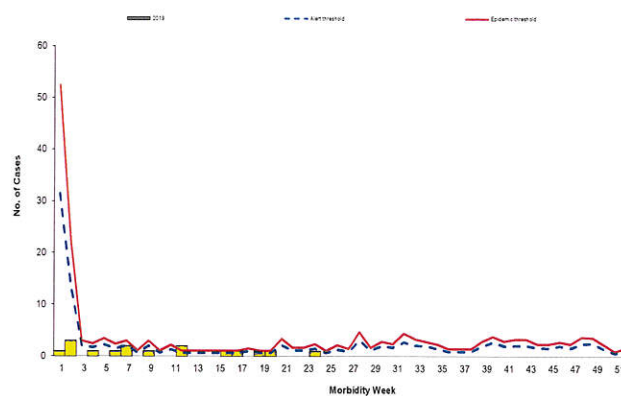


Fig. 16 Reported Leptospirosis Cases by Morbidity Week  
Region X, as of January 1-June 29, 2019 (n=14)

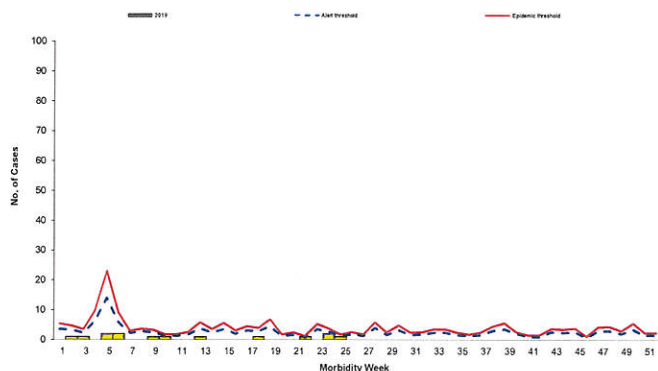
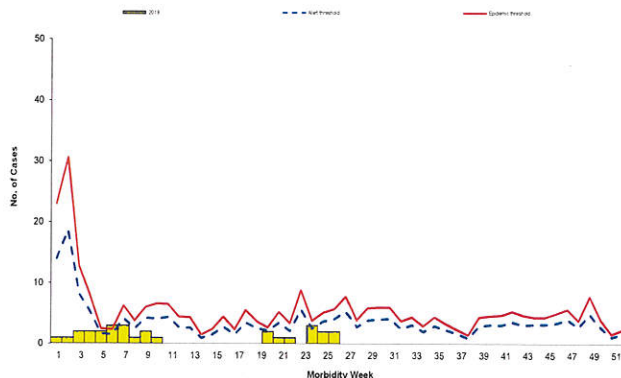


Fig. 17 Reported Leptospirosis Cases by Morbidity Week  
Region XI, as of January 1-June 29, 2019 (n=29)





Figures 6-22. Leptospirosis Alert and Epidemic Thresholds per Region as of June, 2019

Fig. 18 Reported Leptospirosis Cases by Morbidity Week  
Region XII, as of January 1-June 29, 2019 (n=4)

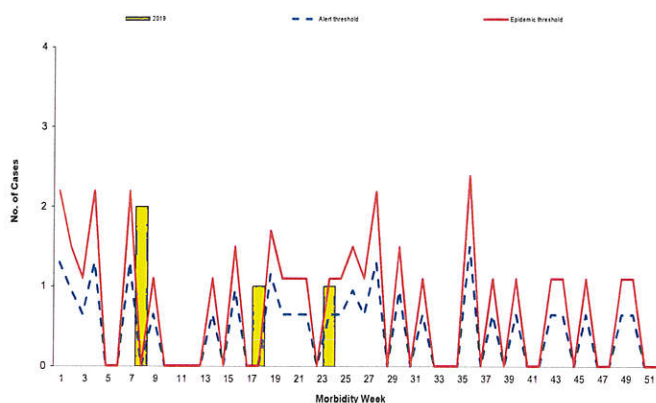


Fig. 19 Reported Leptospirosis Cases by Morbidity Week  
Region ARMM, as of January 1-June 29, 2019 (n=3)

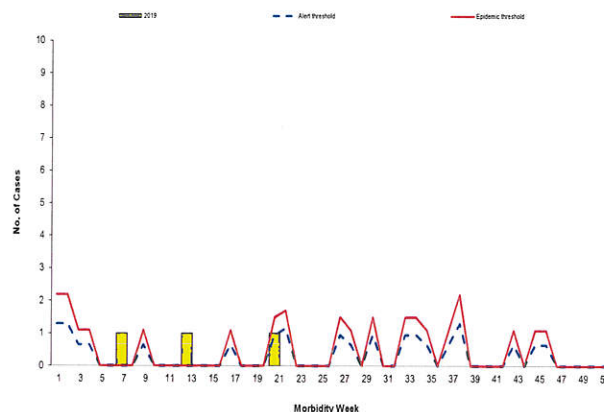


Fig. 20 Reported Leptospirosis Cases by Morbidity Week  
Region CAR, as of January 1-June 29, 2019 (n=11)

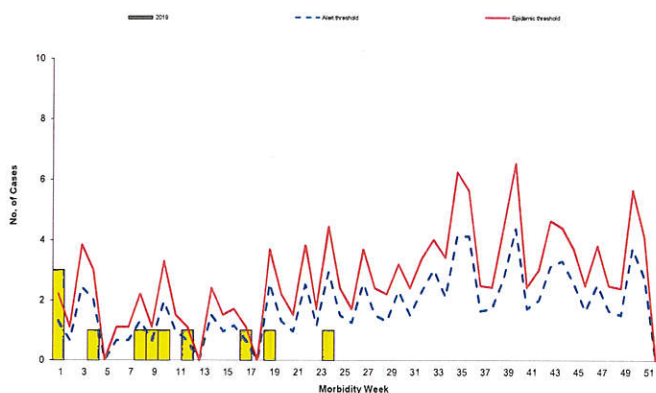


Fig. 21 Reported Leptospirosis Cases by Morbidity Week  
Region Caraga, as of January 1-June 29, 2019 (n=10)

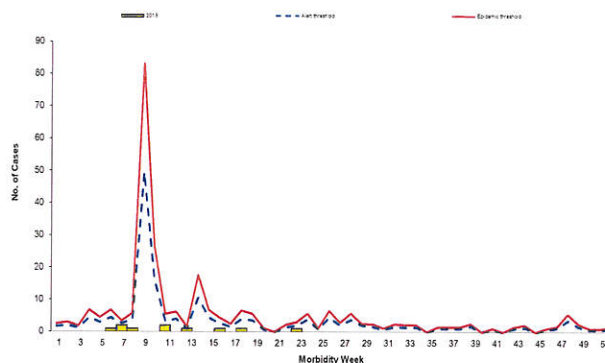
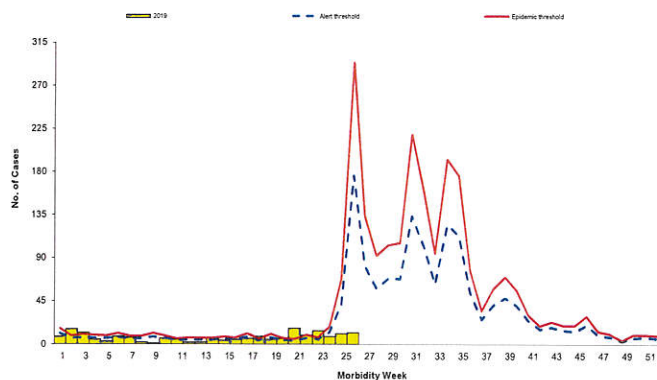


Fig. 22 Reported Leptospirosis Cases by Morbidity Week  
Region NCR, as of January 1-June 29, 2019 (n=188)







**Annex A. Reported Leptospirosis Cases by Region of Disease Reporting Unit (DRU) and Name of DRUs  
Philippines, as of June 29, 2019 (N=650)**

REGION OF DRU	NAME OF DRU	Total
I	ILOCOS TRAINING AND REGIONAL MEDICAL CENTER	2
	PANGASINAN PROVINCIAL HOSPITAL	7
	REGION I MEDICAL CENTER	11
<b>01 Total</b>		<b>20</b>
II	CAGAYAN VALLEY MEDICAL CENTER	40
	ECHAGUE DISTRICT HOSPITAL	1
	GOV. FAUSTINO N. DY SR. MEMORIAL HOSP.	1
	NUEVA VIZCAYA PROVINCIAL HOSPITAL	1
	QUIRINO PROVINCIAL HOSPITAL	1
	REGION II TRAUMA AND MEDICAL CENTER	4
	SOUTHERN ISABELA GENERAL HOSPITAL	1
	SOUTHERN ISABELA MEDICAL CENTER	3
<b>02 Total</b>		<b>53</b>
III	BATAAN GENERAL HOSPITAL AND MEDICAL CENTER	6
	BULACAN MEDICAL CENTER	3
	CANDELARIA DISTRICT HOSPITAL	1
	DR. PAULINO J. GARCIA MEMORIAL RESEARCH AND MEDICAL CENTER	10
	GRACE GENERAL HOSPITAL	1
	ISAAC & CATALINA MEDICAL CENTER	1
	JOSE B. LINGAD MEMORIAL HOSPITAL	4
	M.V. GALLEGOS CABANATUAN CITY GEN. HOSP.	1
	NUEVA ECIJA DOCTORS HOSPITAL INC.	1
	PANQUI GENERAL HOSPITAL	4
	PREMIERE MEDICAL CENTER	1
	RAYOS-VALENTIN HOSPITAL	1
	SAN MIGUEL DISTRICT HOSPITAL	2
	STO. DOMINGO DISTRICT HOSPITAL	1
	TARLAC PROVINCIAL HOSPITAL	3
<b>03 Total</b>		<b>42</b>
IV-A	ANGONO GENERAL HOSPITAL	1
	BATANGAS HEALTH CARE HOSPITAL (Jesus of Nazareth)	1
	CLINICA ANTIPOLLO HOSPITAL AND WELLNESS CENTER INC.	1
	DE LA SALLE UNIVERSITY MEDICAL CENTER	1
	EMILIO AGUINALDO COLLEGE MEDICAL CENTER	1
	GEN. EMILIO AGUINALDO MEMORIAL HOSPITAL	1
	LAGUNA PROVINCIAL HOSPITAL	1
	MAJAYJAY MEDICARE HOSPITAL	1
	N. L. VILLA MEMORIAL MEDICAL CENTER	1
	OSPITAL NG CALACA	1
	RPHS ANTIPOLLO ANNEX 2	1
	UPH- DR. JOSE G. TAMAYO MEDICAL CENTER	1
<b>04A Total</b>		<b>12</b>
MiMaRoPa	CUYO DISTRICT HOSPITAL	1
	MA. ESTRELLA GENERAL HOSPITAL	2
	OCCIDENTAL MINDORO PROVINCIAL HOSPITAL	1
<b>04B Total</b>		<b>5</b>
V	BICOL MEDICAL CENTER	49
	BICOL REGIONAL TRAINING AND TEACHING HOSP.	23
	CAMARINES NORTE PROVINCIAL HOSPITAL	1
	DR. FERNANDO B. DURAN, SR. MEMORIAL HOSP.	3
	EASTERN BICOL MEDICAL CENTER	3
	NAGA IMAGING CENTER COOPERATIVE DOCTORS HOSPITAL	1
	STA. MARIA JOSEFA FOUNDATION HOSPITAL	5
<b>05 Total</b>		<b>86</b>
VI	ALEOSAN DISTRICT HOSPITAL	1
	ALFREDO MARAÑON SR. MEMORIAL HOSPITAL	2
	ANGEL SALAZAR MEMORIAL GENERAL HOSPITAL	2
	ANTIQUÉ MEDICAL CENTER	1
	BACOLOD ADVENTIST MEDICAL CENTER	1
	CADIZ DISTRICT HOSPITAL	2
	CAPIZ DOCTORS' HOSPITAL, INC.	1
	CAPIZ EMMANUEL HOSPITAL, INC.	1
	CORAZON LOCSIN MONTELIBANO MEMORIAL REGIONAL HOSP.	33
	DR. CATALINO GALLEGOS NAVA PROVINCIAL HOSPITAL	4
	HOLY MOTHER OF MERCY HOSPITAL	1
	ILOILO DOCTOR'S HOSPITAL, INC.	2
	ILOILO PROVINCIAL HOSPITAL	2
	PEDRO L. GINDAP MUNICIPAL HOSPITAL	1
	QUALIMED HOSPITAL ILOILO	1
	RAMON TABIANA MEMORIAL DISTRICT HOSPITAL	4
	ROXAS MEMORIAL PROVINCIAL HOSPITAL	3
	ST. ANTHONY COLLEGE HOSPITAL	1
	ST. PAUL'S HOSPITAL	2
	TERESITA L. JALANDONI PROVINCIAL HOSP.	8
	THE MEDICAL CITY ILOILO	1
	WEST VISAYAS STATE UNIVERSITY MEDICAL CTR.	6
	WESTERN VISAYAS MEDICAL CENTER	3
<b>06 Total</b>		<b>83</b>





**Annex A. Reported Leptospirosis Cases by Region of Disease Reporting Unit (DRU) and Name of DRUs  
Philippines, as of June 29, 2019 (N=650) (continuation)**

REGION OF DRU	NAME OF DRU	Total
VII	ADVENTIST HOSPITAL- CEBU	1
	CHONG HUA HOSPITAL	2
	GOV. CELESTINO GALLARES MEMORIAL HOSPITAL	7
	NEGROS ORIENTAL PROVINCIAL HOSP.	1
	SILLIMAN UNIVERSITY MEDICAL CENTER	2
	VICENTE SOTTO MEMORIAL MEDICAL CENTER	2
<b>07 Total</b>		<b>16</b>
VIII	DIVINE WORD HOSPITAL	6
	EASTERN VISAYAS REGIONAL MEDICAL CTR.	1
	NORTHERN SAMAR PROVINCIAL HOSPITAL	4
	ORMOC DISTRICT HOSPITAL	2
	REMEDIOS TRINIDAD ROMUALDEZ HOSPITAL	1
<b>08 Total</b>		<b>14</b>
IX	CIUDAD MEDICAL ZAMBOANGA	3
	DR. HENRY M. DE VILLA MEMO. HOSP.	1
	MARGOSATUBIG REGIONAL HOSPITAL	1
	WEST METRO MEDICAL CENTER	1
	ZAMBOANGA CITY MEDICAL CENTER	9
	ZAMBOANGA DOCTOR'S HOSPITAL, INC.	1
	ZAMBOANGA SIBUGAY PROVINCIAL HOSPITAL	1
<b>09 Total</b>		<b>17</b>
X	ADVENTIST MEDICAL CENTER-ILIGAN	1
	BUKIDNON PROVINCIAL HOSPITAL MARAMAG	1
	CAGAYAN DE ORO POLYMEDIC GENERAL HOSP.	3
	E and R HOSPITAL AND PHARMACY	1
	MADONNA AND CHILD HOSPITAL	2
	MALAYBALAY POLYMEDIC GENERAL HOSPITAL	2
	MARIA REYNA HOSPITAL	2
	NORTHERN MINDANAO MEDICAL CENTER	2
<b>10 Total</b>		<b>14</b>
XI	DAVAO DOCTORS' HOSPITAL	1
	DAVAO MEDICAL SCHOOL FOUNDATION HOSP.	1
	DAVAO REGIONAL HOSPITAL	18
	SOUTHERN PHILIPPINES MEDICAL CENTER (former DAVAO MEDICAL CENTE	12
<b>11 Total</b>		<b>32</b>
XII	LANDERO CLINIC AND HOSPITAL	1
	SOCARGEN COUNTY HOSPITAL	1
	ST. LOUIS MEDICAL CLINIC AND HOSPITAL	1
<b>12 Total</b>		<b>3</b>
ARMM	SULU PROVINCIAL HOSPITAL	1
<b>ARMM Total</b>		<b>1</b>
CAR	BAGUIO GENERAL HOSPITAL AND MEDICAL CENTER	10
	FAR NORTH LUZON GEN. HOSP. AND TRAINING CENTER	1
	KALINGA PROVINCIAL HOSPITAL	1
	PINES CITY DOCTORS' HOSPITAL	1
<b>CAR Total</b>		<b>13</b>
Caraga	ADELA SERRA TY MEMORIAL MEDICAL CENTER	2
	CARAGA REGIONAL HOSPITAL	4
	SURIGAO DEL NORTE PROVINCIAL HOSPITAL	1
<b>Caraga Total</b>		<b>7</b>
NCR	AMANG RODRIGUEZ MEDICAL CENTER	12
	BAGONG SILANGAN HEALTH CENTER	1
	BATASAN HILLS SUPER HEALTH CENTER	1
	CARDINAL SANTOS MEDICAL CENTER	1
	DR. JOSE N. RODRIGUEZ MEMORIAL HOSP.	2
	EAST AVENUE MEDICAL CENTER	46
	GAT ANDRES BONIFACIO MEMORIAL MED. CTR.	3
	JOSE R. REYES MEMORIAL MEDICAL CTR.	8
	LAS PIÑAS GEN. HOSP. & SATELLITE TRAUMA CENTER	9
	MAKATI MEDICAL CENTER	1
	NATIONAL CHILDREN'S HOSPITAL	1
	NATIONAL KIDNEY AND TRANSPLANT INSTITUTE	38
	NODADO GENERAL HOSPITAL CAMARIN	1
	OSPITAL NG MAKATI	9
	OSPITAL NG PARAÑAQUE	4
	PHILIPPINE CHILDREN'S MEDICAL CENTER	3
	PHILIPPINE HEART CENTER	1
	QUEZON CITY GENERAL HOSPITAL	1
	QUIRINO MEMORIAL MEDICAL CENTER	23
	RESEARCH INSTITUTE FOR TROPICAL MEDICINE	1
	RIZAL MEDICAL CENTER	7
	SAN JUAN DE DIOS EDUCATIONAL FOUNDATION, INC.	1
	SAN LAZARO HOSPITAL	22
	SAUYO HEALTH CENTER	2
	ST. LUKE'S MEDICAL CENTER-GLOBAL CITY	1
	STA. ANA HOSPITAL (NEW)	3
	TONDO MEDICAL CENTER	19
	UP-PHILIPPINE GENERAL HOSPITAL	10
	VALENZUELA MEDICAL CENTER	2
<b>NCR Total</b>		<b>233</b>
<b>PHILIPPINES</b>		<b>650</b>