



Leptospirosis

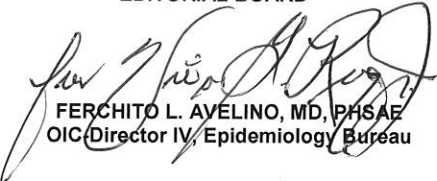




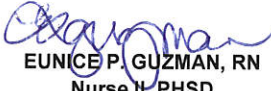
Leptospirosis is a group of zoonotic bacterial diseases with variable manifestations. Disease transmission may be through: contact of skin, especially if abraded, or of mucous membranes with moist soil, vegetation contaminated with urine with infected animals or contaminated water as swimming, wading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

Table 1. Leptospirosis Cases in the Philippines, 2018* vs 2017

Region	2018		2017		Percent Change in Cases	
	Cases	Deaths	Cases	Deaths		
Philippines	4157	386	1791	197	↑	132

PIDSR Case Definition for Leptospirosis

Suspected Case	<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"> • Conjunctival suffocation • Meningeal irritation • Anuria or Oliguria and/ or proteinuria • Jaundice • Hemorrhages (from intestines or lungs) • Cardiac arrhythmia or failure • Skin rash
Probable Case	<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>
Confirmed Case	<p>A suspected case that is laboratory confirmed.</p>

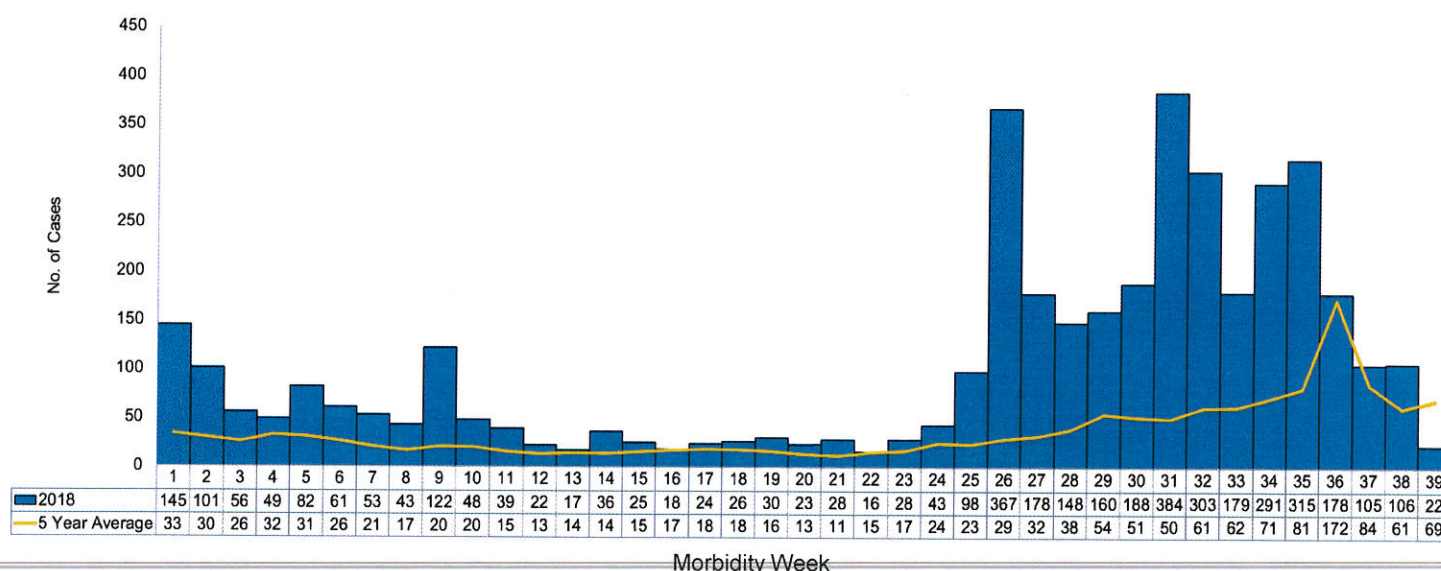
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I. Trend in the Philippines

A total of **4,157** leptospirosis cases were reported nationwide from January to September 29, 2018 [Figure 1]. This is **132%** higher compared to the same time period last year (**1,791**) [Table 2].

**Figure 1. Reported Leptospirosis Cases by Morbidity Week (N=4,157)
Philippines, January to September 2018 vs. 5 Year Average Data**



II. Geographic Distribution of Cases

Most of the cases were from the following regions: **NCR** (1,739, 42%), **REGION I** (453, 11%), **REGION VI** (385, 9%), **REGION III** (379, 9%) and **REGION IV-A** (370, 9%) [Table 2].

**Table 2. Reported Leptospirosis Cases by Region,
Philippines, January to September, 2018* (N=4,157) vs. January to September 2017****

Region	2018		2017		Percent Change in Cases
	Cases	Deaths	Cases	Deaths	
Philippines	4157	386	1791	197	↑132
I	453	51	182	28	↑149
II	69	6	130	13	↓ 47
III	379	25	182	17	↑108
IV-A	370	42	70	6	↑429
MIMAROPA	40	1	10	1	↑300
V	77	4	55	2	↑ 40
VI	385	45	258	26	↑ 49
VII	80	13	72	11	↑ 11
VIII	75	8	87	10	↓ 14
IX	93	7	29	5	↑221
X	39	5	67	3	↓ 42
XI	107	8	128	5	↓ 16
XII	9	2	6	0	↑ 50
ARMM	9	1	4	0	↑125
CAR	45	3	48	2	↓ 6
CARAGA	188	5	41	3	↑359
NCR	1,739	160	422	65	↑312

*From period of January 1 to September 29, 2018

**From period of January 1 to September 29, 2017

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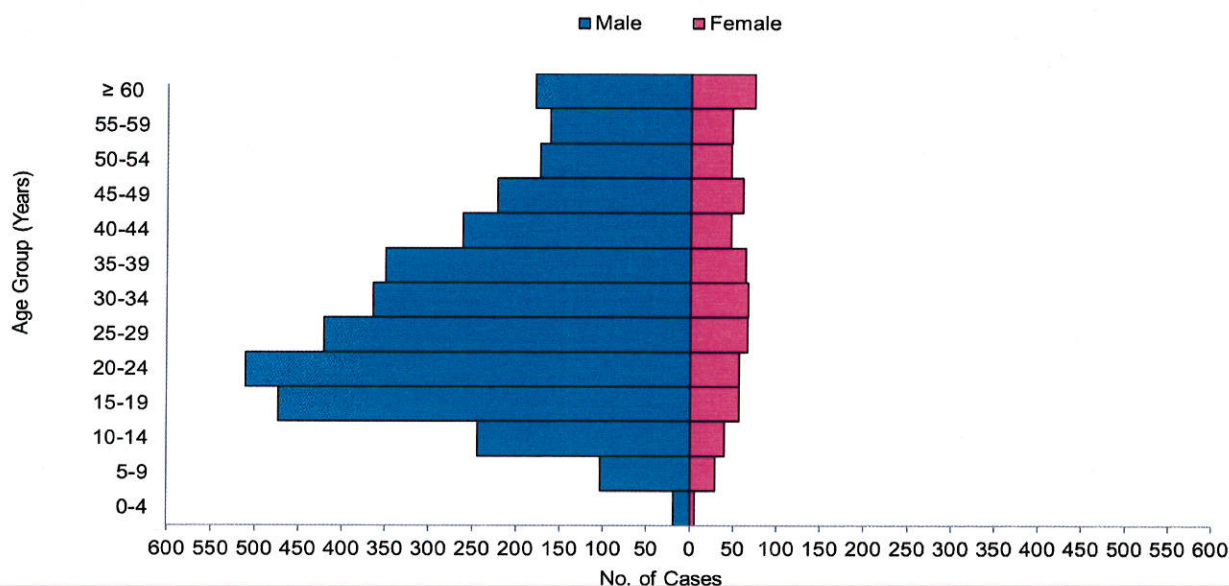
Percentage Total may not equal to 100 due to rounding-off figures.



III. Profile of Cases

Age of cases ranged from less than 1 year to 88 years (median = 30 years) [Figure 2]. Majority (3,492, 84%) of cases were male. Most (568, 14%) of the cases belonged to the age group of 20-24 years old. There were 386 deaths (CFR = 9.29%).

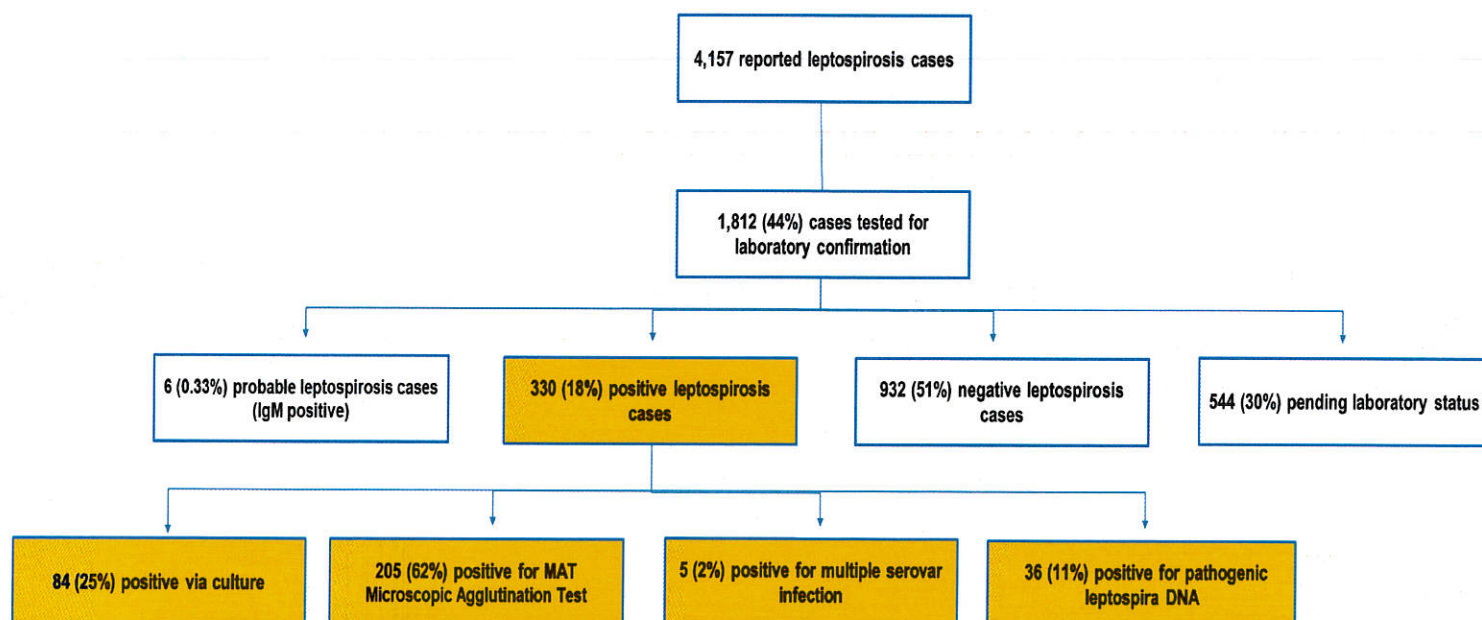
Figure 2. Reported Leptospirosis Cases by Age Group and Sex (N=4,157)
Philippines, January to September, 2018*



IV. Laboratory Status of Leptospirosis Cases

Out of the 4,157 reported leptospirosis cases, there were 1,812 cases (44%) tested for laboratory confirmation. Out of the tested, 330 cases (18%) yielded for positive results, 932 cases (51%) yielded negative results, 6 cases (0.33%) were IgM positive (probable leptospirosis), while there were 544 cases (30%) awaiting laboratory results (Figure 3).

Figure 3. Laboratory Status of Reported Leptospirosis Cases
Philippines, January to September, 2018*



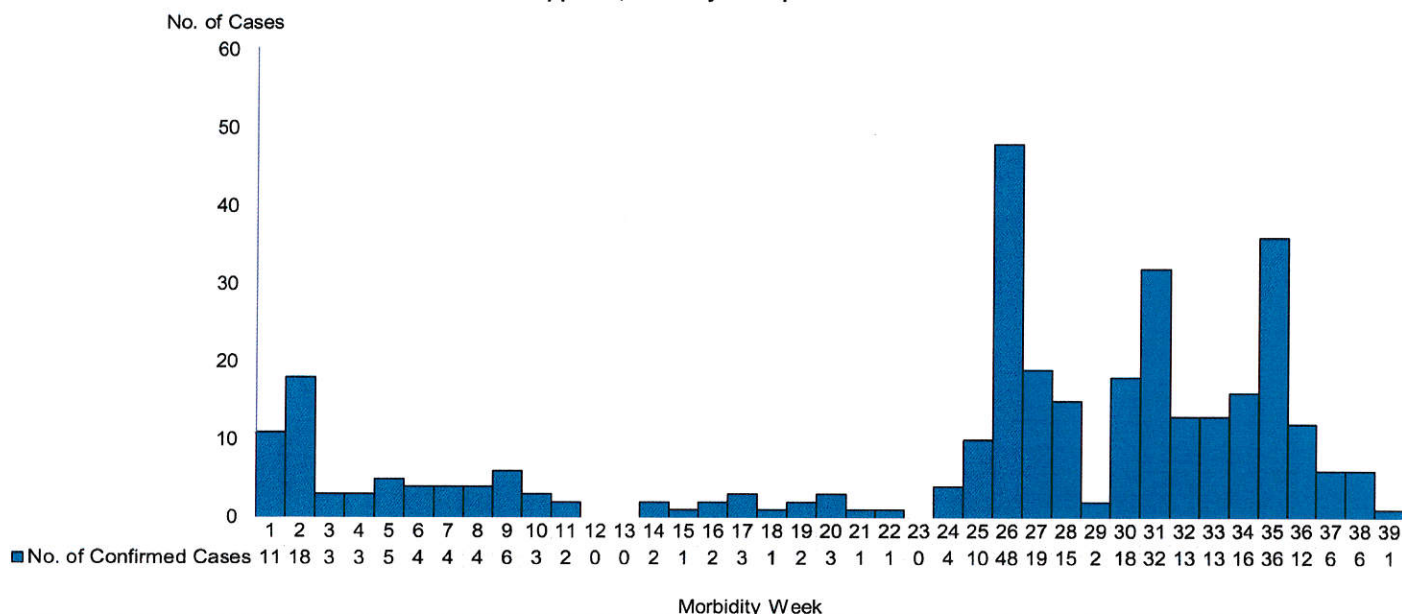
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V. Profile of Confirmed Leptospirosis Cases

Out of the 4,157 reported leptospirosis cases, a total of **330** confirmed leptospirosis cases were reported nationwide from January to September 29, 2018 [Figure 4].

Figure 4. Confirmed Leptospirosis by Morbidity Week (n=330)
Philippines, January to September 2018



VI. Geographic Distribution of Confirmed Leptospirosis Cases

Most of the confirmed leptospirosis cases were from the following regions: **NCR** (175, 53%), **REGION IV-A** (51, 15%), **REGION I** (36, 11%), **REGION VI** (19, 6%), and **REGION XI** (10, 3%). Regions with the highest confirmed leptospirosis case fatality rate were: **REGION II** (33.33%), **REGION XI** (20.00%) and **REGION I** (16.67%) [Table 3].

Table 3. Confirmed Leptospirosis Cases by Region (n=330)
Philippines, January to September, 2018

Region	Cases	Deaths	CFR%
PHILIPPINES	330	31	9.39
I	36	6	16.67
II	3	1	33.33
III	8	0	0.00
IV-A	51	4	7.84
MIMAROPA	3	0	0.00
V	3	0	0.00
VI	19	3	15.79
VIII	3	0	0.00
IX	9	0	0.00
X	1	0	0.00
XI	10	2	20.00
CAR	1	0	0.00
CARAGA	8	0	0.00
NCR	175	15	8.57



VII. Sex and Age Group of Confirmed Leptospirosis Cases

Age of confirmed leptospirosis cases ranged from less than 1 year to 77 years (median = 31 years). Majority (274, 83%) of confirmed cases were male. Most (44, 13%) of the confirmed leptospirosis cases belonged to the age group of 20-24 years old [Figure 5]. Reported leptospirosis cases started to decrease from September 2 to 29, 2018 [Figure 6].

Figure 5. Confirmed Leptospirosis Cases by Age Group and Sex (n=330)
Philippines, January to September, 2018*

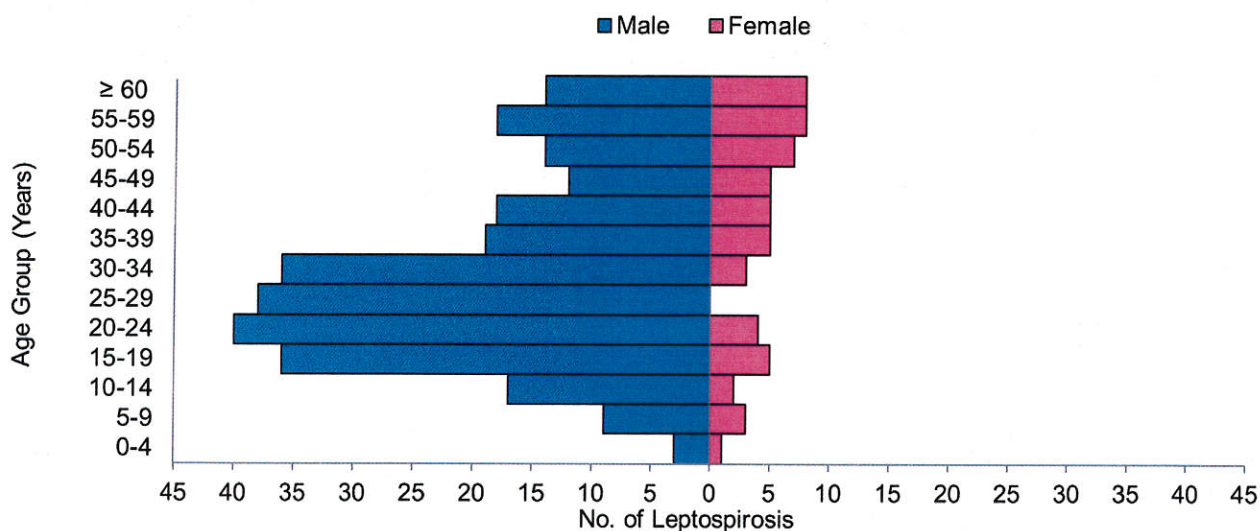
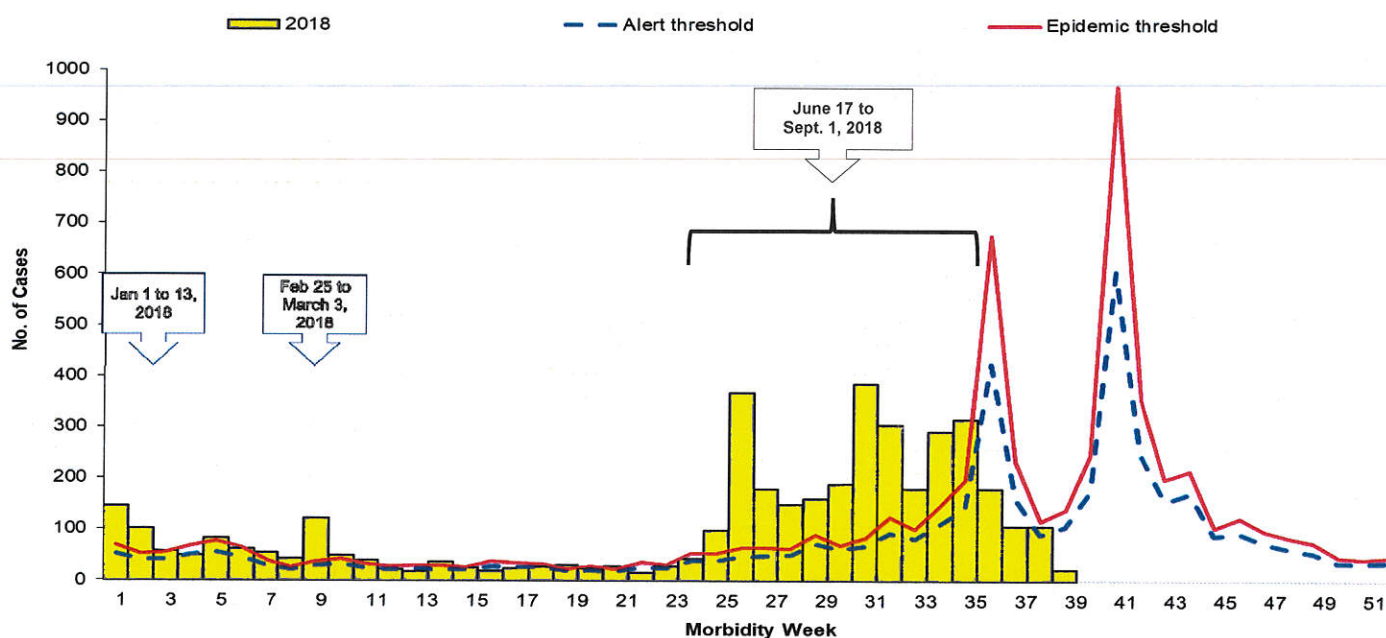


Figure 6. Reported Leptospirosis Alert and Epidemic Thresholds, Philippines as of January 1-September, 2018 (N=4,157)



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Figures 7-23. Leptospirosis Alert and Epidemic Thresholds per Region as of January 1-September 29, 2018

Fig. 7 Reported Leptospirosis Cases by Morbidity Week
Region I, as of January 1-September 29, 2018 (n=453)

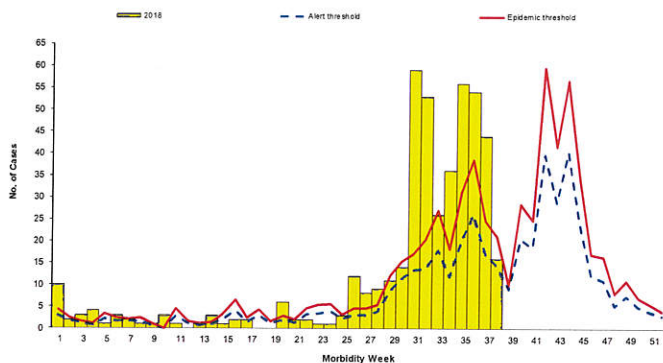


Fig. 9 Reported Leptospirosis Cases by Morbidity Week
Region III, as of January 1-September 29, 2018 (n=379)

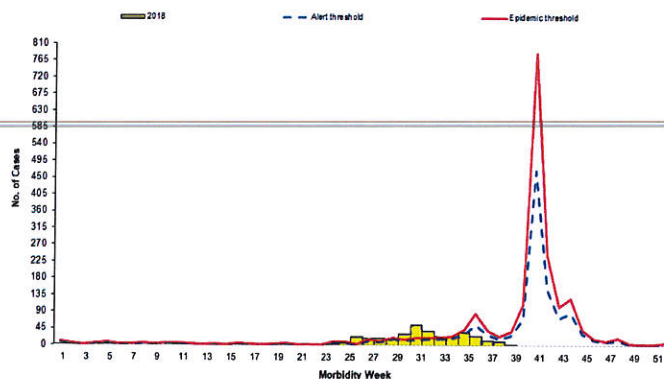


Fig. 11 Reported Leptospirosis Cases by Morbidity Week
Region MIMAROPA, as of January 1-September 29, 2018 (n=40)

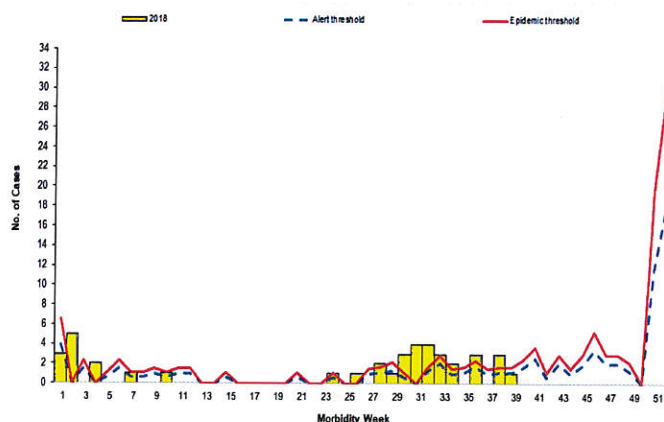


Fig. 8 Reported Leptospirosis Cases by Morbidity Week
Region II, as of January 1-September 29, 2018 (n=69)

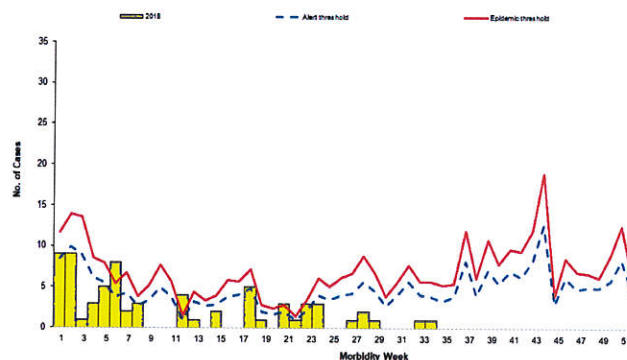


Fig. 10 Reported Leptospirosis Cases by Morbidity Week
Region IV-A, as of January 1-September 29, 2018 (n=370)

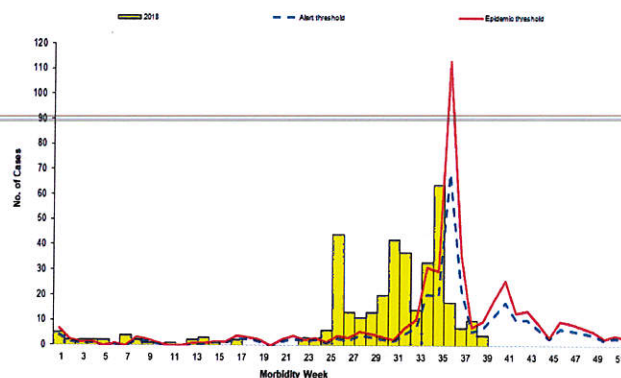
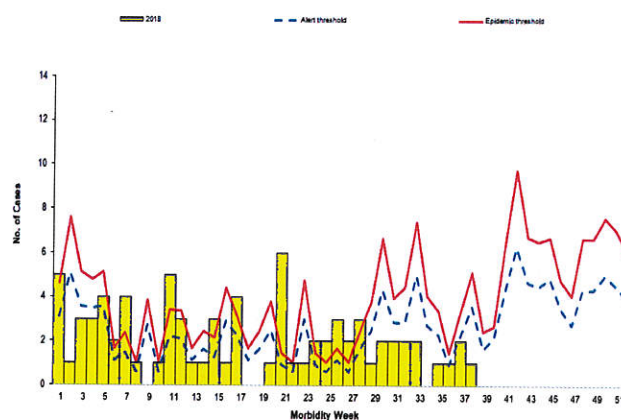


Fig. 12 Reported Leptospirosis Cases by Morbidity Week
Region V, as of January 1-September 29, 2018 (n=77)

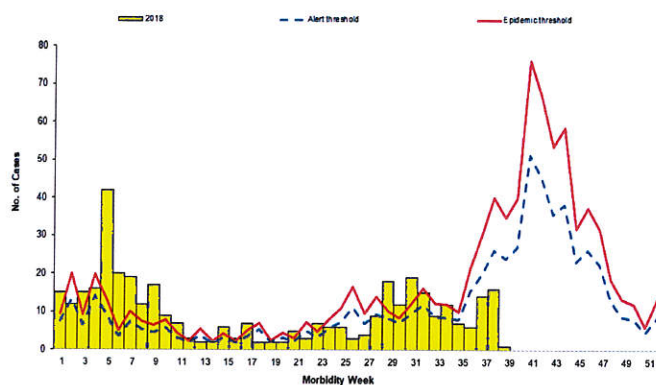


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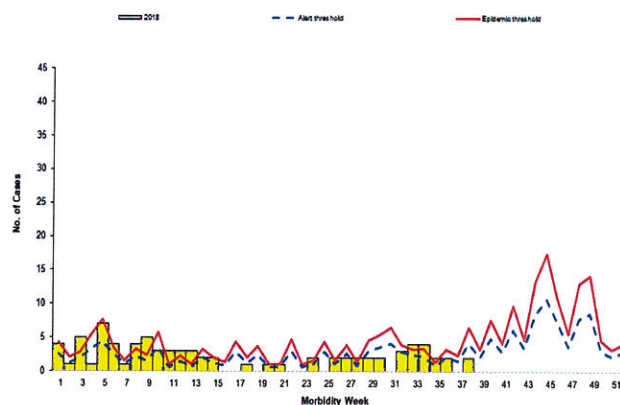


Figures 7-23. Leptospirosis Alert and Epidemic Thresholds per Region as of January 1-September 29, 2018

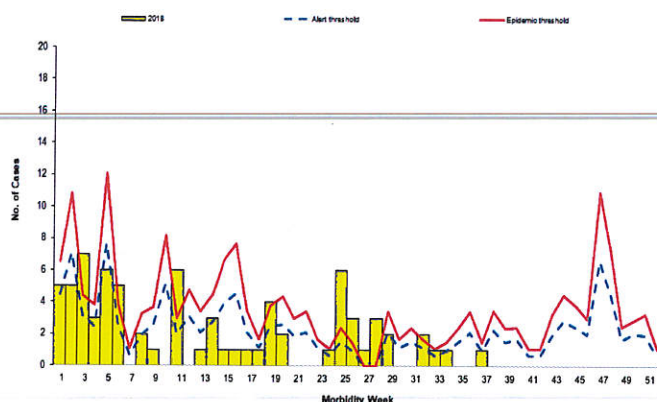
**Fig. 13 Reported Leptospirosis Cases by Morbidity Week
Region VI, as of January 1-September 29, 2018 (n=385)**



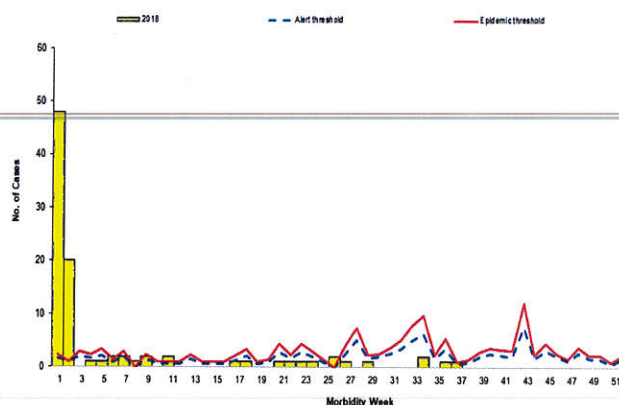
**Fig. 14 Reported Leptospirosis Cases by Morbidity Week
Region VII, as of January 1-September 29, 2018 (n=80)**



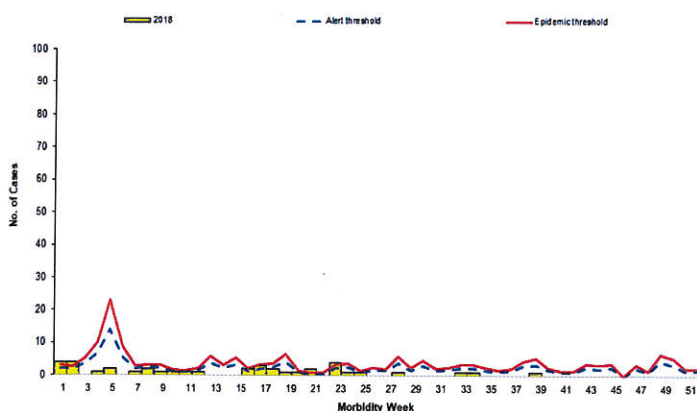
**Fig. 15 Reported Leptospirosis Cases by Morbidity Week
Region VIII, as of January 1-September 29, 2018 (n=75)**



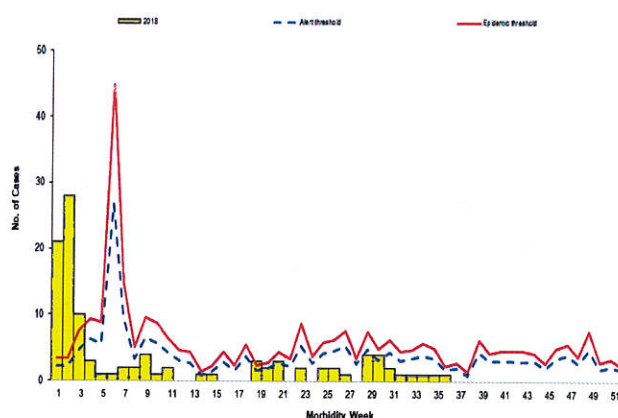
**Fig. 16 Reported Leptospirosis Cases by Morbidity Week
Region IX, as of January 1-September 29, 2018 (n=93)**



**Fig. 17 Reported Leptospirosis Cases by Morbidity Week
Region X, as of January 1-September 29, 2018 (n=39)**



**Fig. 18 Reported Leptospirosis Cases by Morbidity Week
Region XI, as of January 1-September 29, 2018 (n=107)**



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Figures 7-23. Leptospirosis Alert and Epidemic Thresholds per Region as of January 1-September 29, 2018

Fig. 19 Reported Leptospirosis Cases by Morbidity Week
Region XII, as of January 1-September 29, 2018 (n=9)

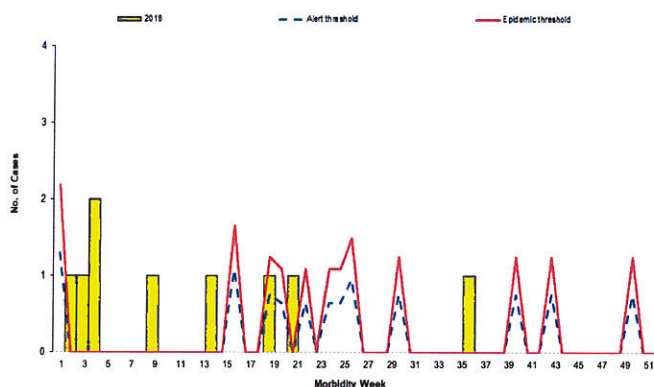


Fig. 21 Reported Leptospirosis Cases by Morbidity Week
Region CAR, as of January 1-September 29, 2018 (n=45)

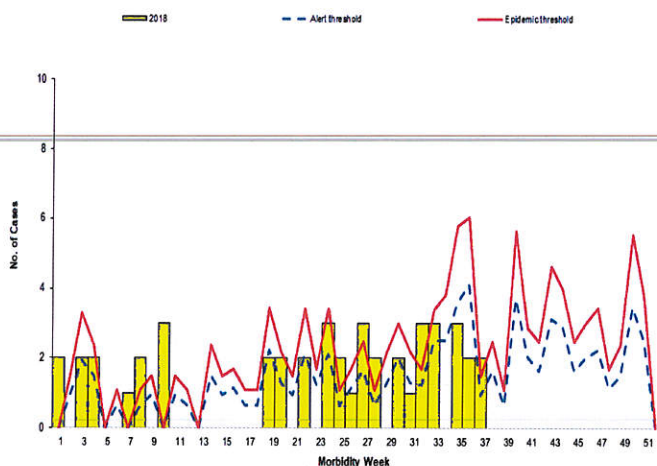


Fig. 23 Reported Leptospirosis Cases by Morbidity Week
Region NCR, as of January 1-September 29, 2018 (n=1,739)

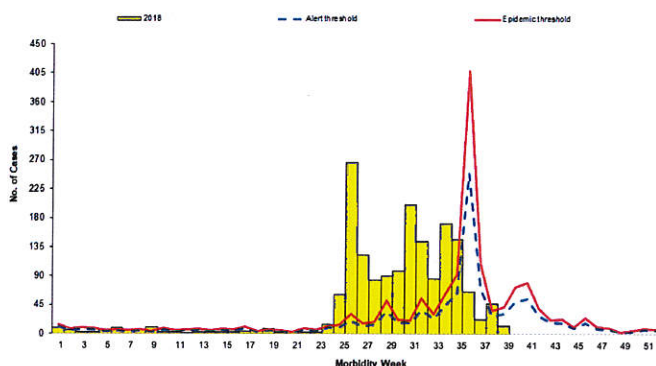


Fig. 20 Reported Leptospirosis Cases by Morbidity Week
Region ARMM, as of January 1-September 29, 2018 (n=9)

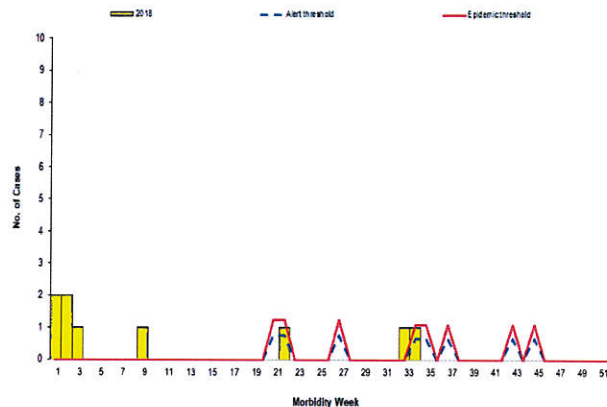
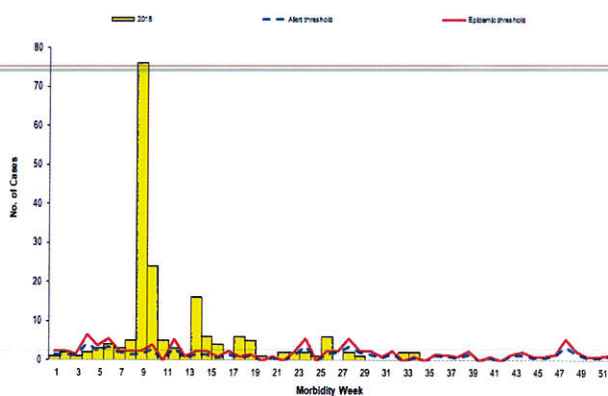


Fig. 22 Reported Leptospirosis Cases by Morbidity Week
Region CARAGA, as of January 1-September 29, 2018
(n=188)



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