



Leptospirosis

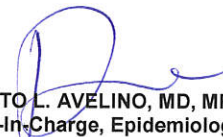
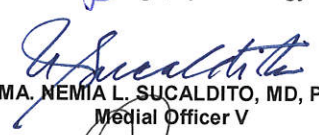

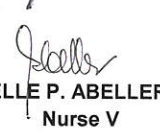

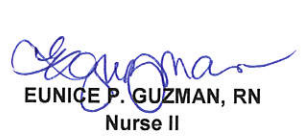
Leptospirosis is a group of zoonotic bacterial diseases with variable manifestations. Disease transmission may be through: contact of skin, especially if abraded, or of mucous membranes with moist soil, vegetation contaminated with urine with infected animals or contaminated water as swimming, wading 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	5232	505	3067	317	↑	71

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">• Congunctival 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>

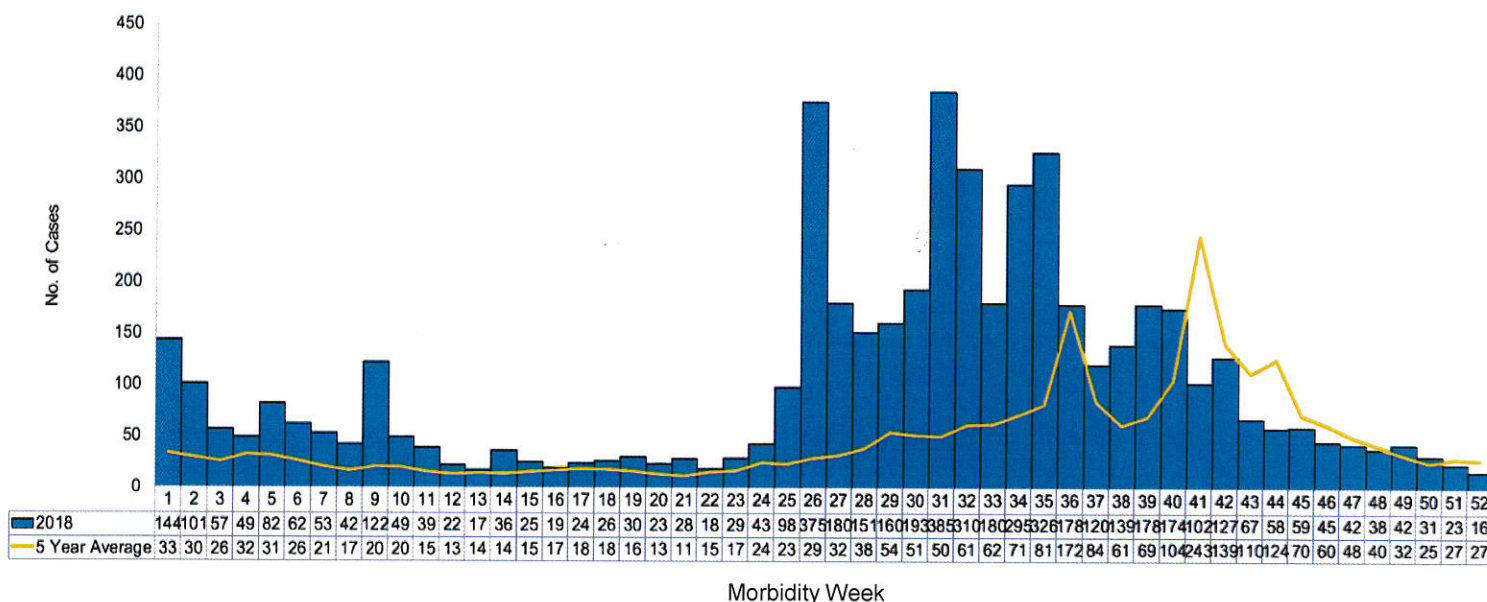
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I. Trend in the Philippines

A total of **5,232** leptospirosis cases were reported nationwide from January to December 31, 2018 [Figure 1]. This is **71%** higher compared to the same time period last year (**3,067**) [Table 2].

Figure 1. Reported Leptospirosis Cases by Morbidity Week (N=5,232)
Philippines, January to December 2018 vs. 5 Year Average Data



II. Geographic Distribution of Cases

Most of the cases were from the following regions: **NCR** (1,987, 38%), **REGION VI** (661, 13%), **REGION I** (584, 11%), **REGION III** (491, 9%) and **REGION IV-A** (465, 9%) [Table 2].

Table 2. Reported Leptospirosis Cases by Region,
Philippines, January to December, 2018* (N=5,232) vs. January to December 2017**

Region	2018		2017		Percent Change in Cases
	Cases	Deaths	Cases	Deaths	
Philippines	5232	505	3067	317	↑ 71
I	584	72	432	57	↑ 35
II	115	13	197	20	↓ 42
III	491	34	235	26	↑109
IV-A	465	48	137	11	↑239
MIMAROPA	57	3	25	6	↑128
V	120	7	102	11	↑ 18
VI	661	67	651	51	↑ 2
VII	103	15	170	23	↓ 39
VIII	82	8	112	10	↓ 27
IX	107	12	45	5	↑138
X	47	7	84	3	↓ 44
XI	128	10	167	6	↓ 23
XII	11	2	8	0	↑ 38
ARMM	9	1	6	0	↑ 50
CAR	73	6	76	2	↓ 4
CARAGA	192	6	52	4	↑269
NCR	1,987	194	568	82	↑250

*From period of January 1 to December 31, 2018

**From period of January 1 to December 31, 2017

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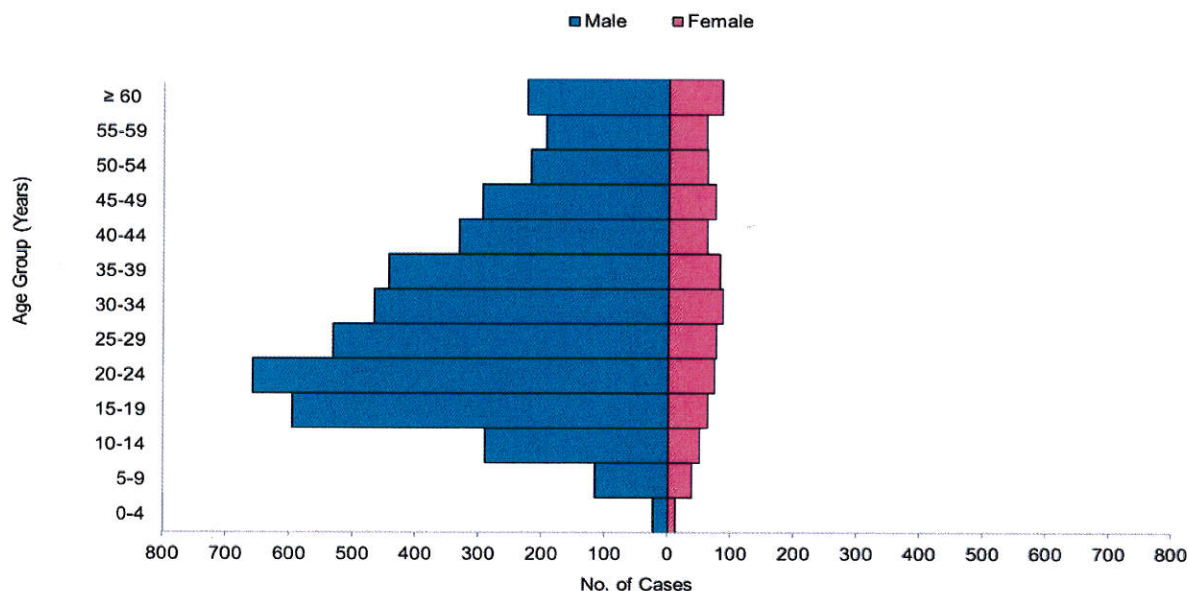
Percentage Total may not equal to 100 due to rounding-off figures.



III. Profile of Cases

Age of cases ranged from less than 1 year to 88 years (median = 30 years) [Figure 2]. Majority (4,398, 84%) of cases were male. Most (733, 14%) of the cases belonged to the age group of 20-24 years old. There were 505 deaths (CFR = 9.65%).

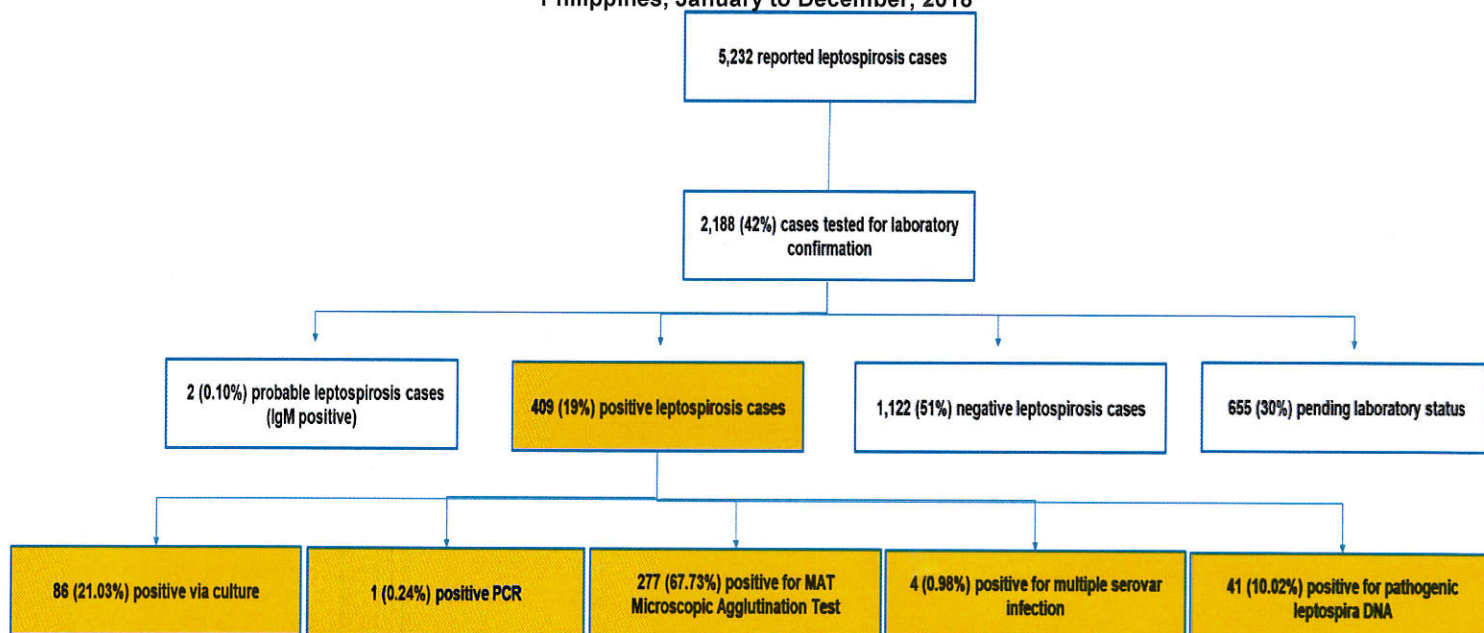
Figure 2. Reported Leptospirosis Cases by Age Group and Sex (N=5,232)
Philippines, January to December, 2018*



IV. Laboratory Status of Leptospirosis Cases

Out of the 5,232 reported leptospirosis cases, there were 2,188 cases (42%) tested for laboratory confirmation. Out of the tested, 409 cases (19%) yielded for positive results, 1,122 cases (51%) yielded negative results, 2 cases (0.10%) were IgM positive (probable leptospirosis), while there were 655 cases (30%) awaiting laboratory results [Figure 3].

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



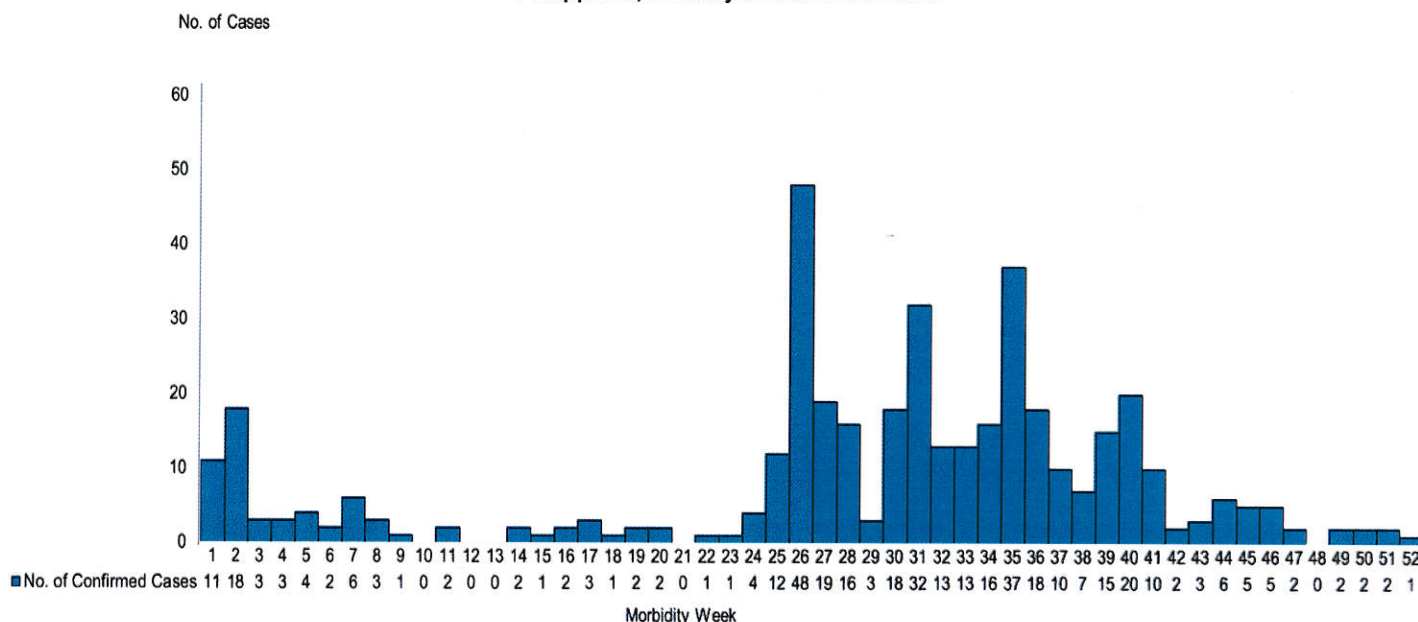
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V. Profile of Confirmed Leptospirosis Cases

Out of the 5,232 reported leptospirosis cases, a total of **409** confirmed leptospirosis cases were reported nationwide from January to December 31, 2018 [Figure 4].

**Figure 4. Confirmed Leptospirosis by Morbidity Week (n=409)
Philippines, January to December 2018**



VI. Geographic Distribution of Confirmed Leptospirosis Cases

Most of the confirmed leptospirosis cases were from the following regions: **NCR** (212, 52%), **REGION I** (65, 16%), **REGION IV-A** (57, 14%), **REGION VI** (22, 5%), and **REGION III** (11, 3%). Regions with the highest confirmed leptospirosis case fatality rate were: **REGION XI** (20%), **REGION II** (16.67%), **REGION I** (13.85%), and **REGION VI** (13.64) [Table 3].

**Table 3. Confirmed Leptospirosis Cases by Region (n=409)
Philippines, January to December, 2018**

Region	Cases	Deaths	CFR%
PHILIPPINES	409	36	8.80
I	65	9	13.85
II	6	1	16.67
III	11	0	0.00
IV-A	57	4	7.02
MIMAROPA	4	0	0.00
V	3	0	0.00
VI	22	3	13.64
VIII	3	0	0.00
IX	10	0	0.00
X	1	0	0.00
XI	10	2	20.00
CAR	3	0	0.00
CARAGA	2	0	0.00
NCR	212	17	8.02



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 (346, 85%) of confirmed cases were male. Most (55, 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 December 31, 2018 [Figure 6].

Figure 5. Confirmed Leptospirosis Cases by Age Group and Sex (n=409)
Philippines, January to December, 2018*

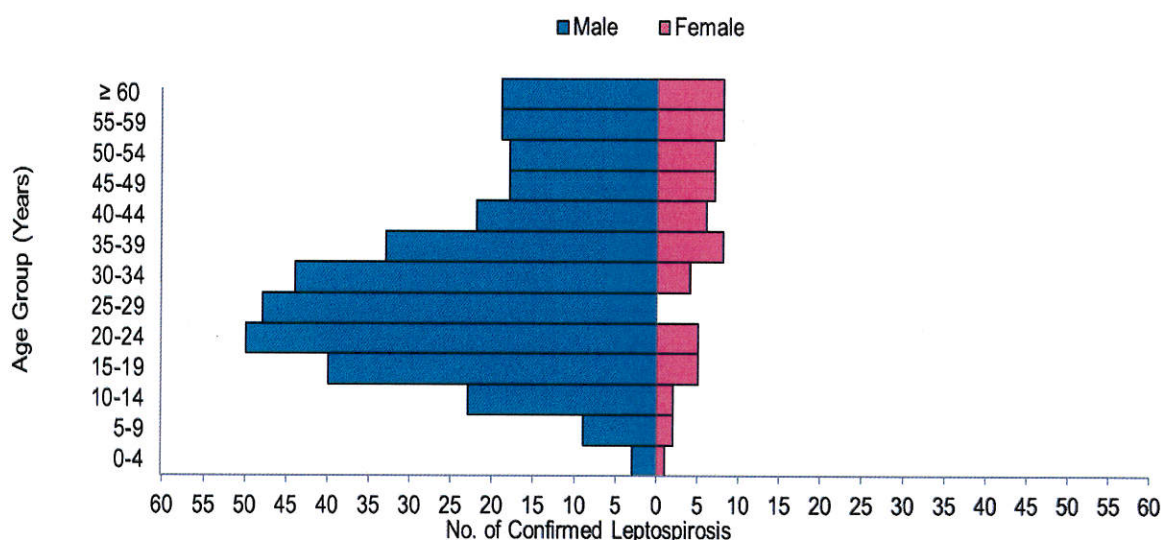
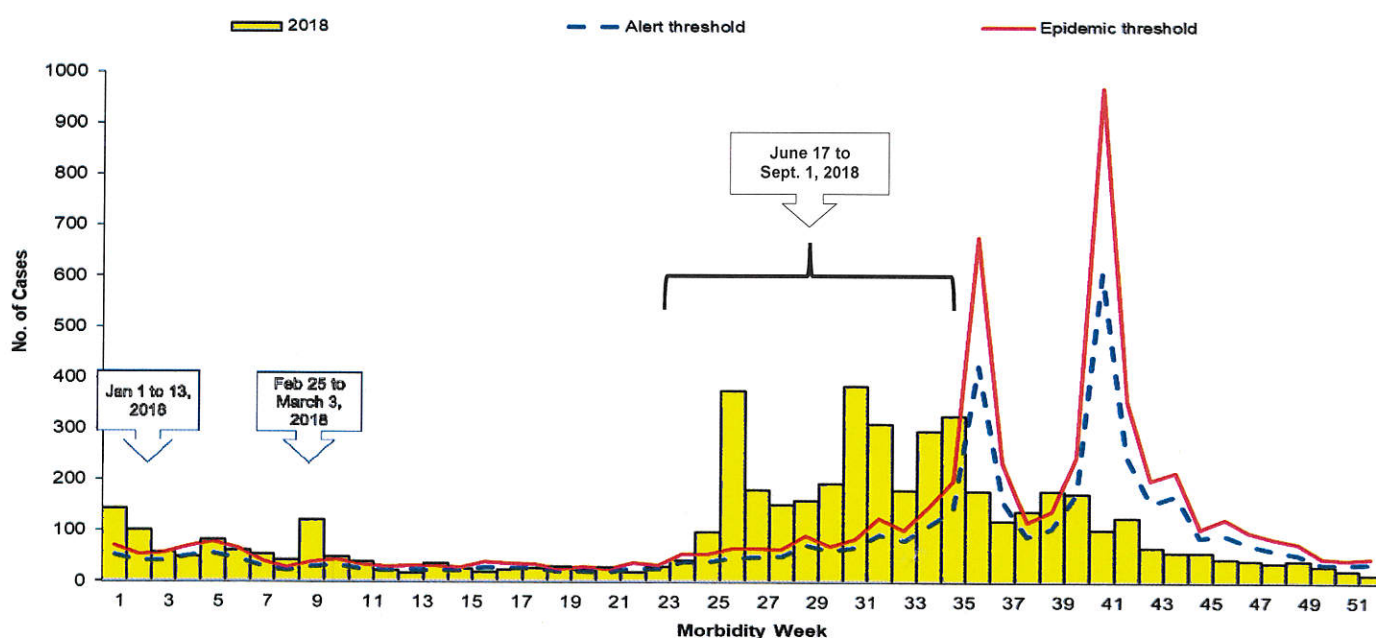


Figure 6. Reported Leptospirosis Alert and Epidemic Thresholds, Philippines as of January 1-December 31, 2018 (N=5,232)





Figures 7-23. Leptospirosis Alert and Epidemic Thresholds per Region as of January 1-December 31, 2018

Fig. 7 Reported Leptospirosis Cases by Morbidity Week
Region I, as of January 1-December 31, 2018 (n=584)

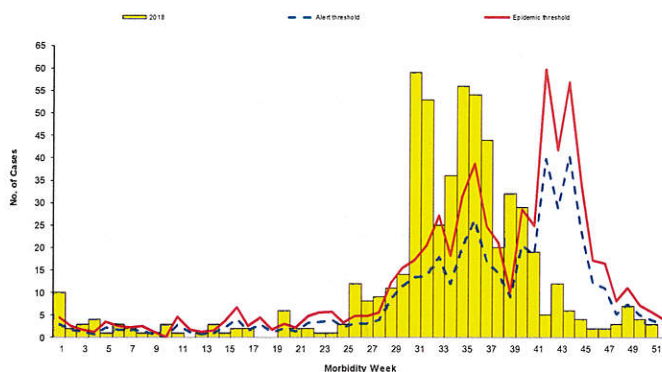


Fig. 9 Reported Leptospirosis Cases by Morbidity Week
Region III, as of January 1-December 31, 2018 (n=491)

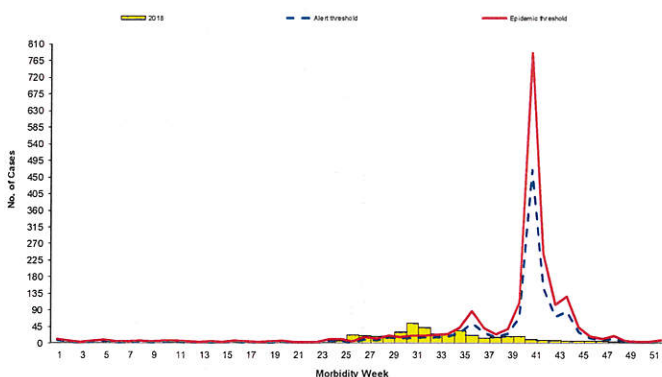


Fig. 11 Reported Leptospirosis Cases by Morbidity Week
Region MIMAROPA, as of January 1-December 31, 2018 (n=57)

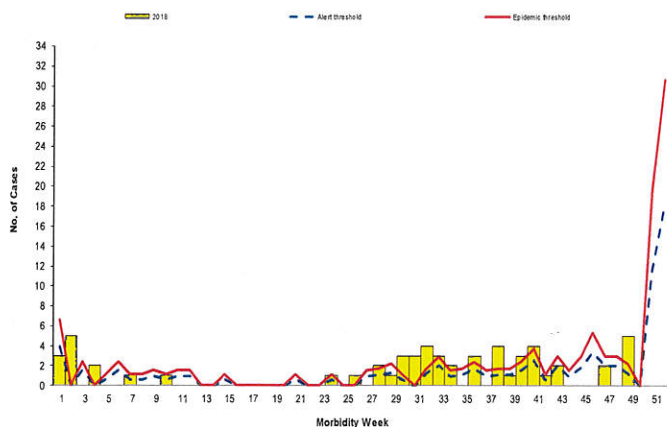


Fig. 8 Reported Leptospirosis Cases by Morbidity Week
Region II, as of January 1-December 31, 2018 (n=115)

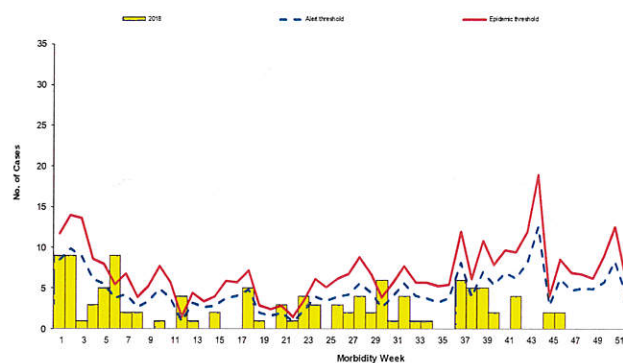


Fig. 10 Reported Leptospirosis Cases by Morbidity Week
Region IV-A, as of January 1-December 31, 2018 (n=465)

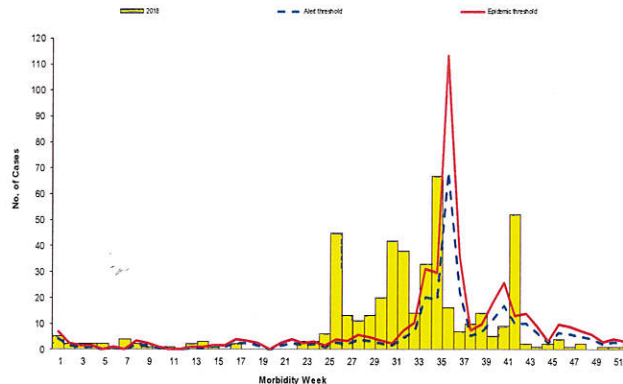
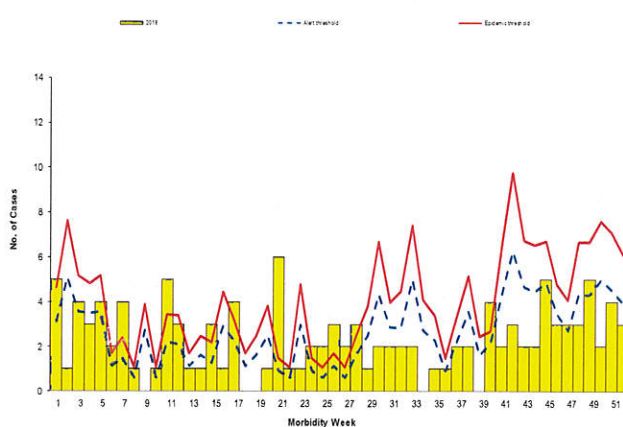


Fig. 12 Reported Leptospirosis Cases by Morbidity Week
Region V, as of January 1-December 31, 2018 (n=120)

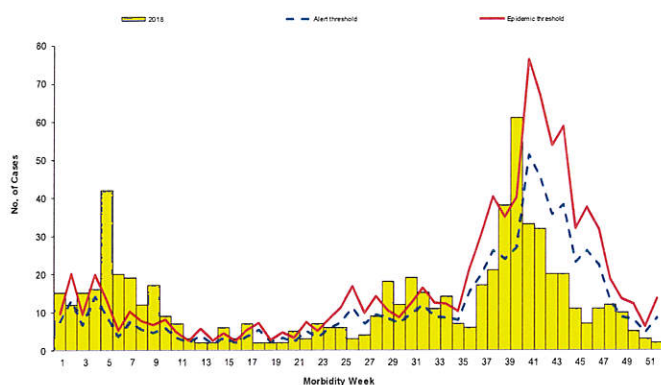


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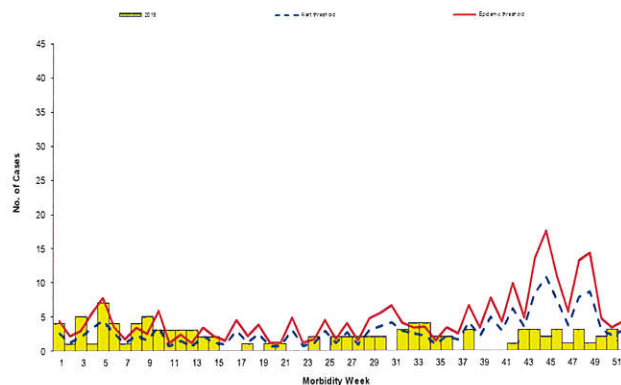


Figures 7-23. Leptospirosis Alert and Epidemic Thresholds per Region as of January 1-December 31, 2018

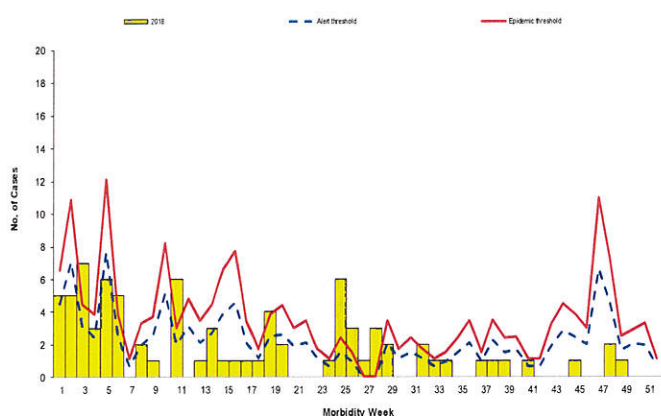
**Fig. 13 Reported Leptospirosis Cases by Morbidity Week
Region VI, as of January 1-December 31, 2018 (n=661)**



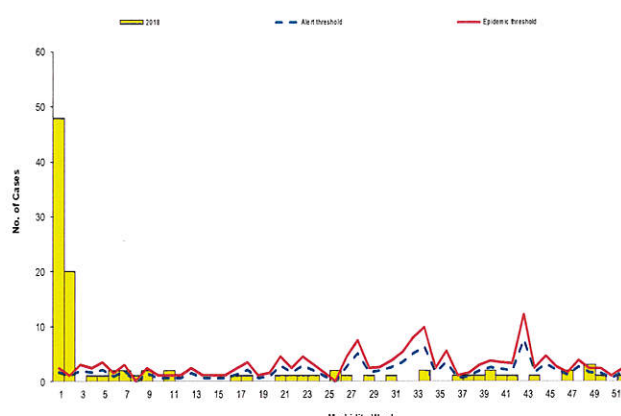
**Fig. 14 Reported Leptospirosis Cases by Morbidity Week
Region VII, as of January 1-December 31, 2018 (n=103)**



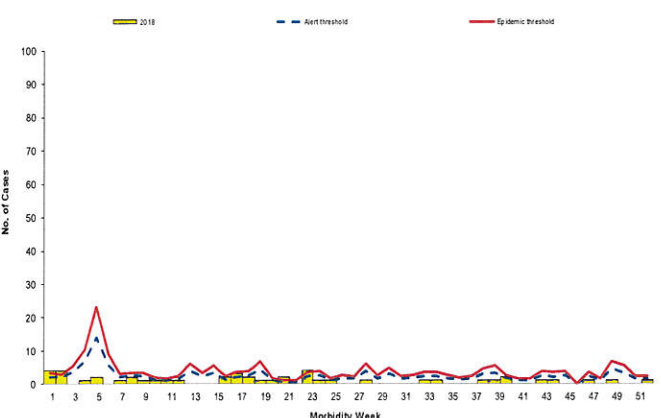
**Fig. 15 Reported Leptospirosis Cases by Morbidity Week
Region VIII, as of January 1-December 31, 2018 (n=82)**



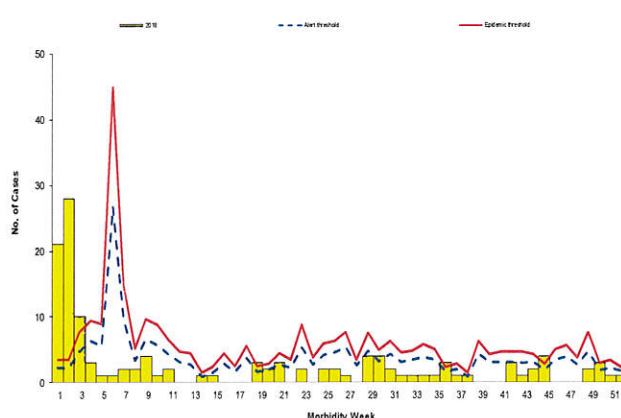
**Fig. 16 Reported Leptospirosis Cases by Morbidity Week
Region IX, as of January 1-December 31, 2018 (n=107)**



**Fig. 17 Reported Leptospirosis Cases by Morbidity Week
Region X, as of January 1-December 31, 2018 (n=47)**



**Fig. 18 Reported Leptospirosis Cases by Morbidity Week
Region XI, as of January 1-December 31, 2018 (n=128)**

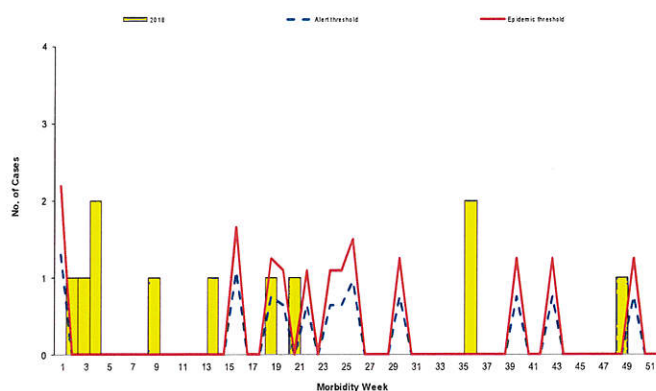


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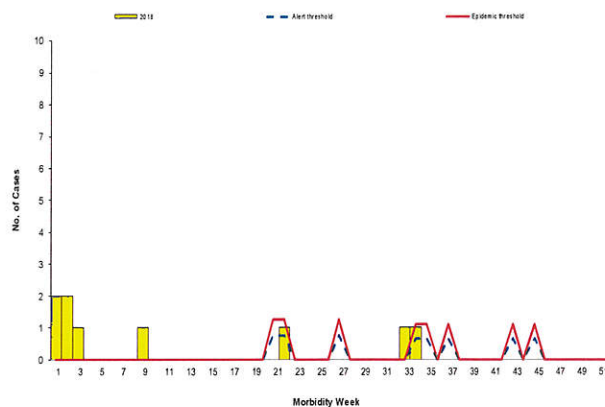


Figures 7-23. Leptospirosis Alert and Epidemic Thresholds per Region as of January 1-December 31, 2018

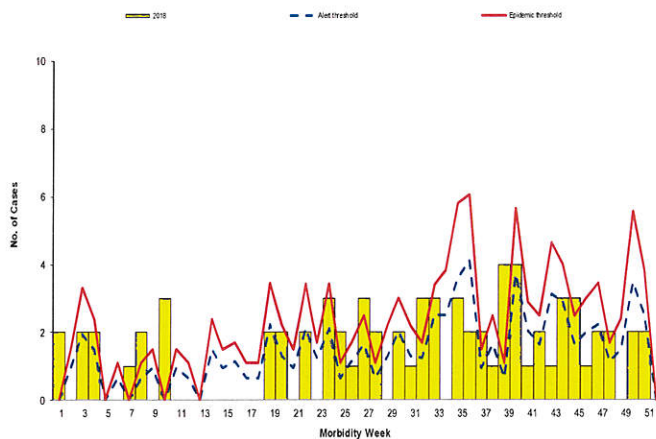
**Fig. 19 Reported Leptospirosis Cases by Morbidity Week
Region XII, as of January 1-December 31, 2018 (n=11)**



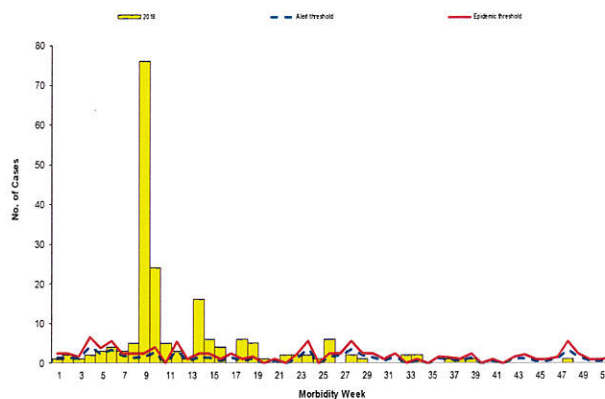
**Fig. 20 Reported Leptospirosis Cases by Morbidity Week
Region ARMM, as of January 1-December 31, 2018 (n=9)**



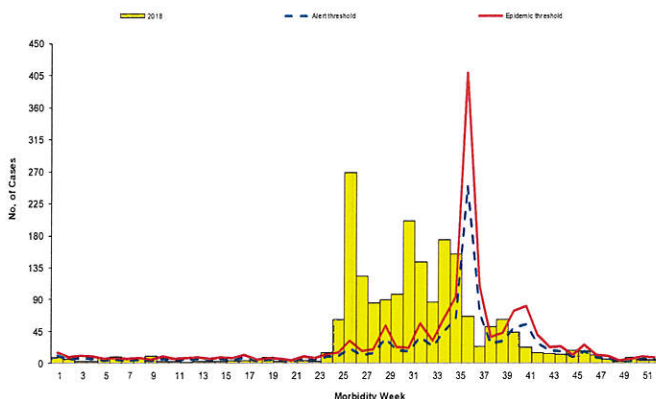
**Fig. 21 Reported Leptospirosis Cases by Morbidity Week
Region CAR, as of January 1-December 31, 2018 (n=73)**



**Fig. 22 Reported Leptospirosis Cases by Morbidity Week
Region CARAGA, as of January 1-December 31, 2018
(n=192)**



**Fig. 23 Reported Leptospirosis Cases by Morbidity Week
Region NCR, as of January 1-December 31, 2018 (n=1,987)**



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