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

<table>
<thead>
<tr>
<th>Region</th>
<th>2019</th>
<th>2018</th>
<th>Percent Change in Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases</td>
<td>Deaths</td>
<td>Cases</td>
</tr>
<tr>
<td>Philippines</td>
<td>264</td>
<td>28</td>
<td>586</td>
</tr>
</tbody>
</table>

PIDS Case Definition for Leptospirosis

**Suspected Case**

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

- Conjunctival suffocation
- Meningeal irritation
- Anuria or Oliguria and/ or proteinuria
- Jaundice
- Hemorrhages (from intestines or lungs)
- Cardiac arrhythmia or failure
- Skin rash

**Probable Case**

A suspected case in an ongoing epidemic or an environment contaminated with animal urine (e.g. wading in water floods, rice fields, drainage)

**Confirmed Case**

A suspected case that is laboratory confirmed.
I. Trend in the Philippines
A total of 264 leptospirosis cases were reported nationwide from January 1 to February 23, 2019 (Figure 1). This is 55% lower compared to the same time period last year (566) (Table 2).

Figure 1. Reported Leptospirosis Cases by Morbidity Week (N=264)
Philippines, January 1 to February 23, 2019 Alert and Epidemic Threshold

II. Geographic Distribution of Cases
Most of the cases were from the following regions: REGION V (69, 26%), NCR (57, 22%), REGION VI (34, 13%), REGION III (16, 6%) and REGION IV-A (16, 6%) (Table 2).

Table 2. Reported Leptospirosis Cases by Region, Philippines, February 2019* (N=264) vs. February 2018**

<table>
<thead>
<tr>
<th>Region</th>
<th>Cases 2019</th>
<th>Deaths</th>
<th>Cases 2018</th>
<th>Deaths</th>
<th>Percent Change in Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>264</td>
<td>20</td>
<td>566</td>
<td>58</td>
<td>↓ 55</td>
</tr>
<tr>
<td>I</td>
<td>7</td>
<td>2</td>
<td>26</td>
<td>6</td>
<td>↓ 73</td>
</tr>
<tr>
<td>II</td>
<td>16</td>
<td>3</td>
<td>39</td>
<td>2</td>
<td>↓ 62</td>
</tr>
<tr>
<td>III</td>
<td>16</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>→ 0</td>
</tr>
<tr>
<td>IV-A</td>
<td>16</td>
<td>3</td>
<td>19</td>
<td>1</td>
<td>↓ 16</td>
</tr>
<tr>
<td>MIMAROPA</td>
<td>2</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>↓ 82</td>
</tr>
<tr>
<td>V</td>
<td>69</td>
<td>3</td>
<td>24</td>
<td>1</td>
<td>↑ 188</td>
</tr>
<tr>
<td>VI</td>
<td>34</td>
<td>2</td>
<td>150</td>
<td>19</td>
<td>↓ 77</td>
</tr>
<tr>
<td>VII</td>
<td>9</td>
<td>2</td>
<td>27</td>
<td>3</td>
<td>↓ 67</td>
</tr>
<tr>
<td>VIII</td>
<td>10</td>
<td>0</td>
<td>33</td>
<td>1</td>
<td>↓ 70</td>
</tr>
<tr>
<td>IX</td>
<td>7</td>
<td>1</td>
<td>75</td>
<td>3</td>
<td>↓ 91</td>
</tr>
<tr>
<td>X</td>
<td>5</td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>↓ 62</td>
</tr>
<tr>
<td>XI</td>
<td>12</td>
<td>2</td>
<td>68</td>
<td>7</td>
<td>↓ 82</td>
</tr>
<tr>
<td>XII</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>↓ 100</td>
</tr>
<tr>
<td>ARMM</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>↓ 80</td>
</tr>
<tr>
<td>CAR</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>↓ 50</td>
</tr>
<tr>
<td>CARAGA</td>
<td>0</td>
<td>0</td>
<td>21</td>
<td>2</td>
<td>↓ 100</td>
</tr>
<tr>
<td>NCR</td>
<td>57</td>
<td>7</td>
<td>47</td>
<td>9</td>
<td>↑ 21</td>
</tr>
</tbody>
</table>

*From period of January 1 to February 23, 2019
**From period of January 1 to February 23, 2018

Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. A PDF file of this report is available at www.doh.gov.ph/statistics. Percentage Total may not equal to 100 due to rounding off figures.
III. Profile of Cases
Age of cases ranged from 3 years to 88 years (median = 32 years) [Figure 2]. Majority (235, 89%) of cases were male. Most (43, 16%) of the cases belonged to the age group of 20-24 years old. There were 28 deaths (CFR = 10.61%).

Figure 2. Reported Leptospirosis Cases by Age Group and Sex (N=264) Philippines, February 2019

IV. Laboratory Status of Leptospirosis Cases
Out of the 264 reported leptospirosis cases, there were 67 cases (25%) tested for laboratory confirmation. Out of the tested, 17 cases (25%) yielded for positive results, 24 cases (36%) yielded negative results, while there were 26 cases (39%) awaiting laboratory results [Figure 3].

Figure 3. Laboratory Status of Reported Leptospirosis Cases Philippines, February 2019

*From period of January 1 to February 23, 2019

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Percentage Total may not equal to 100 due to rounding-off figures.
V. Profile of Confirmed Leptospirosis Cases
Out of the 264 reported leptospirosis cases, a total of 17 confirmed leptospirosis cases were reported nationwide from January 1 to February 23, 2019 [Figure 4].

VI. Geographic Distribution of Confirmed Leptospirosis Cases
Most of the confirmed leptospirosis cases were from the following regions: NCR (7, 41%), REGION VI (4, 24%), and REGION IV-A (3, 18%). Among the reported confirmed leptospirosis cases, 1 death was noted from NCR (CFR 5.88%).

Table 3. Confirmed Leptospirosis Cases by Region (n=17)
Philippines, February 2019

<table>
<thead>
<tr>
<th>Region</th>
<th>Cases</th>
<th>Deaths</th>
<th>CFR%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHILIPPINES</td>
<td>17</td>
<td>1</td>
<td>5.88</td>
</tr>
<tr>
<td>I</td>
<td>1</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>IV-A</td>
<td>3</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>V</td>
<td>1</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>VI</td>
<td>4</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>VIII</td>
<td>1</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>NCR</td>
<td>7</td>
<td>1</td>
<td>14.29</td>
</tr>
</tbody>
</table>

*From period of January 1 to February 23, 2019

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VII. Sex and Age Group of Confirmed Leptospirosis Cases

Age of confirmed leptospirosis cases ranged from 16 years to 49 years (median = 25 years). Majority (15, 88%) of confirmed cases were male. Most (5, 29%) of the confirmed leptospirosis cases belonged to the age group of 45-49 years old [Figure 5].

Figure 5. Confirmed Leptospirosis Cases by Age Group and Sex (n=17)
Philippines, February 2019*

*From period of January 1 to February 23, 2019

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A PDF file of this report is available at www.doh.gov.ph/statistics.

Percentage Total may not equal to 100 due to rounding off figures.
Figures 6-22. Leptospirosis Alert and Epidemic Thresholds per Region as of February, 2019

Fig. 6 Reported Leptospirosis Cases by Morbidity Week Region I, as of January 1-February 23, 2019 (n=7)

Fig. 7 Reported Leptospirosis Cases by Morbidity Week Region II, as of January 1-February 23, 2019 (n=15)

Fig. 8 Reported Leptospirosis Cases by Morbidity Week Region III, as of January 1-February 23, 2019 (n=16)

Fig. 9 Reported Leptospirosis Cases by Morbidity Week Region IV-A, as of January 1-February 23, 2019 (n=16)

Fig. 10 Reported Leptospirosis Cases by Morbidity Week Region MIMAROPA, as of January 1-February 23, 2019 (n=2)

Fig. 11 Reported Leptospirosis Cases by Morbidity Week Region V, as of January 1-February 23, 2019 (n=69)

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

Fig. 12 Reported Leptospirosis Cases by Morbidity Week Region VI, as of January 1-February 23, 2019 (n=34)

Fig. 13 Reported Leptospirosis Cases by Morbidity Week Region VII, as of January 1-February 23, 2019 (n=9)

Fig. 14 Reported Leptospirosis Cases by Morbidity Week Region VIII, as of January 1-February 23, 2019 (n=10)

Fig. 15 Reported Leptospirosis Cases by Morbidity Week Region IX, as of January 1-February 23, 2019 (n=7)

Fig. 16 Reported Leptospirosis Cases by Morbidity Week Region X, as of January 1-February 23, 2019 (n=5)

Fig. 17 Reported Leptospirosis Cases by Morbidity Week Region XI, as of January 1-February 23, 2019 (n=12)

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Percentage Total may not equal to 100 due to rounding-off figures.
Figures 6-22. Leptospirosis Alert and Epidemic Thresholds per Region as of February, 2019

Fig. 18 Reported Leptospirosis Cases by Morbidity Week Region XII, as of January 1-February 23, 2019 (n=0)

Fig. 19 Reported Leptospirosis Cases by Morbidity Week Region ARMM, as of January 1-February 23, 2019 (n=1)

Fig. 20 Reported Leptospirosis Cases by Morbidity Week Region CAR, as of January 1-February 23, 2019 (n=4)

Fig. 21 Reported Leptospirosis Cases by Morbidity Week Region CARAGA, as of January 1-February 23, 2019 (n=0)

Fig. 22 Reported Leptospirosis Cases by Morbidity Week Region NCR, as of January 1-February 23, 2019 (n=57)

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