



Morbidity Week 28 – July 12 – July 18, 2015

Epidemiology Bureau  
Public Health Surveillance Division

### Introduction

Dengue fever and the more severe form, dengue hemorrhagic fever, are caused by any of the four serotypes of dengue virus (types 1, 2, 3 and 4). An infected day-biting female *Aedes* mosquito transmits the viral disease to humans.

In the Philippines, *Aedes aegypti* and *Aedes albopictus* are the primary and secondary mosquito vectors, respectively. The mosquito vectors breed in the small amount of water collected in storages such as tanks, cisterns, flower vases, plant axils and backyard litter.

The incubation period is from 3 to 14 days, commonly 4-7 days.

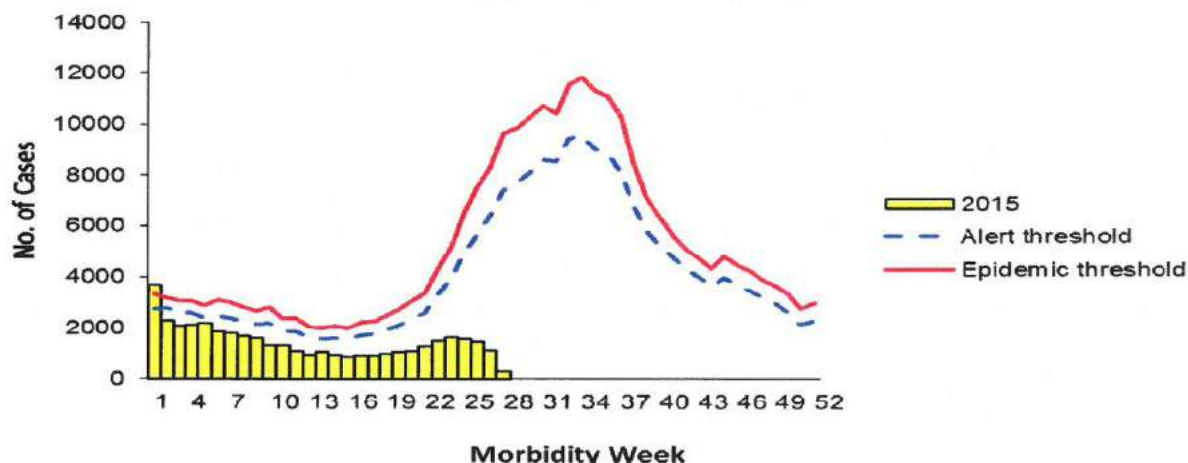
### Signs and Symptoms

- Sudden onset of high fever which may last from 2 to 7 days.
- Joint and muscle pain and pain behind the eyes.
- Weakness
- Skin rashes
- Nosebleeding when fever starts to subside
- Abdominal pain
- Vomiting of coffee-colored matter
- Dark-colored stools
- Difficulty breathing.

### Trend in the Philippines

A total of **40,593** suspect dengue cases were reported nationwide from January 1 to July 18, 2015. This is **.67%** lower compared to the same time period last year (**40,866**).

**Fig. 1 Distribution of Suspect Dengue Cases by Morbidity Week  
Philippines, as of July 18, 2015**



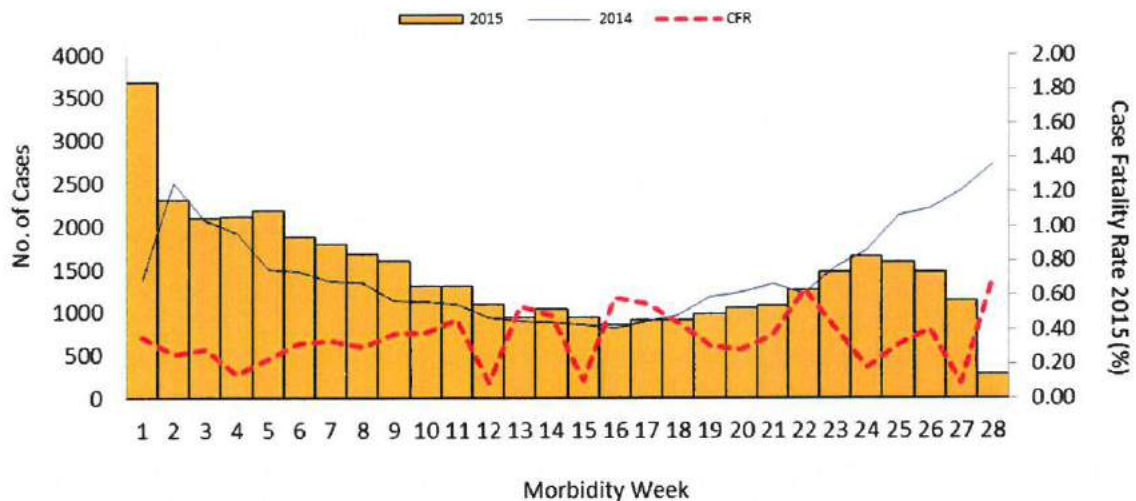
\*NOTE: Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases.



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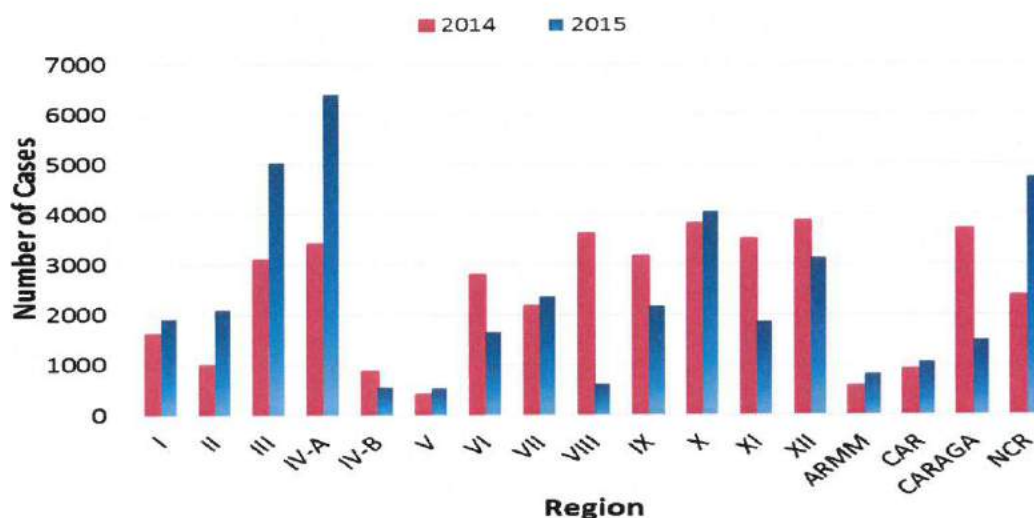
**Fig. 2 Suspect Dengue Cases by Morbidity Week, Philippines, as of July 18, 2015**  
2015\* vs 2014 (N=40,593)



### Geographic Distribution

Most of the cases were from the following regions: **Region IV-A (15.8%)**, **Region III (12.5%)**, **NCR (11.7%)**, **Region X (10%)** and **Region XII (7.7%)**.

**Fig. 3 Suspect Dengue Cases by Region Philippines, 2015 vs 2014**



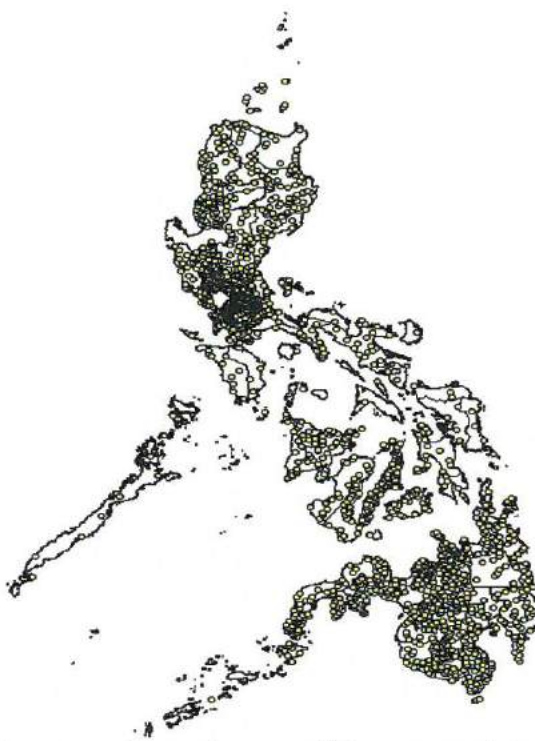
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**Fig 4. Suspect Dengue Cases as of January 1 to July 18, 2015**

Region	Cases
Region 1	= 1936
Region 2	= 2113
Region 3	= 5056
Region 4A	= 6400
Region 4B	= 556
Region 5	= 542
Region 6	= 1661
Region 7	= 2371
Region 8	= 604
Region 9	= 2179
Region 10	= 4071
Region 11	= 1871
Region 12	= 3137
ARMM	= 797
CAR	= 1059
CARAGA	= 1502
NCR	= 4738
<b>Total</b>	<b>= 40593</b>

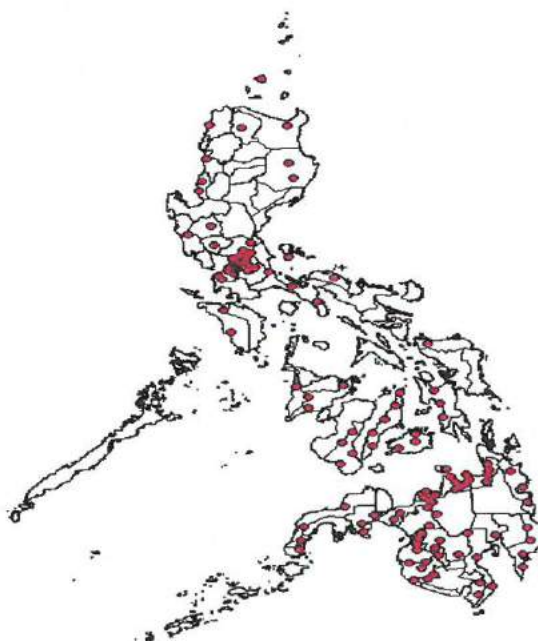
Legend  
 1 Dot = 20 Cases



**Fig 5. Suspect Dengue Deaths as of January 1 to July 18, 2015**

Region	Deaths
Region 1	= 7
Region 2	= 5
Region 3	= 5
Region 4A	= 16
Region 4B	= 2
Region 5	= 1
Region 6	= 4
Region 7	= 12
Region 8	= 4
Region 9	= 7
Region 10	= 17
Region 11	= 7
Region 12	= 13
ARMM	= 6
CAR	= 1
CARAGA	= 7
NCR	= 20
<b>Total</b>	<b>= 131</b>

Legend  
 1 Dot = 1 Death



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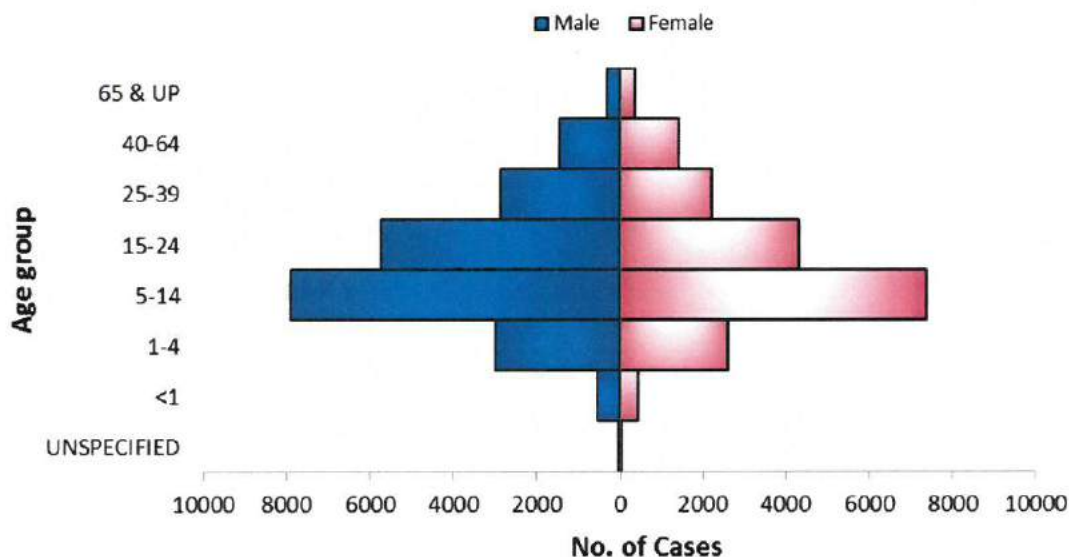




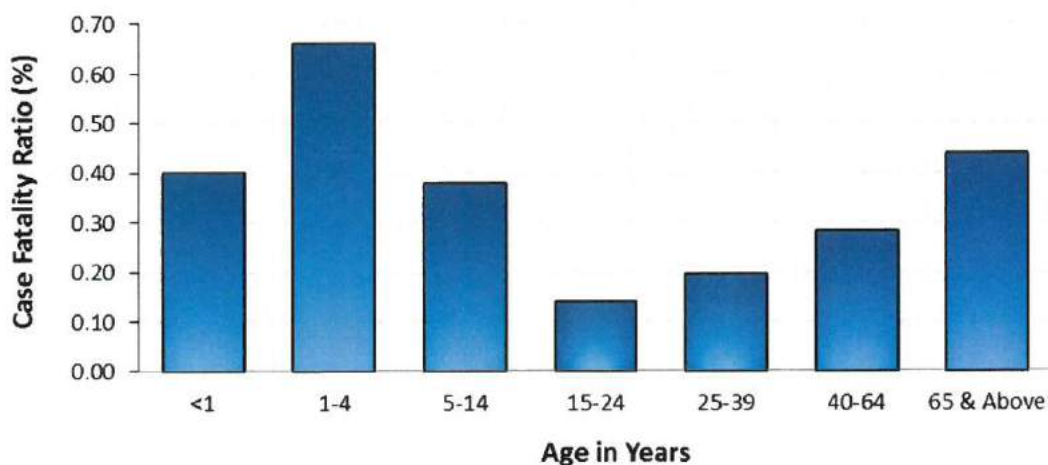
### Profile of Cases

Ages of cases ranged from less than 1 month to 97 years old (median = 13 years). Majority of cases were male (53.8%). Most (37.6%) of the cases belonged to the 5 to 14 years age group (Fig. 6). There were 134 deaths (CFR = 0.33%).

**Fig.6 Suspect Dengue Cases by Agegroup and Sex  
Philippines, as of July 18, 2015 (N=40,593)**



**Fig. 7 Suspect Dengue Case Fatality Rate (CFR) by Age Group,  
Philippines, as of July 18, 2015**



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### Dengue Virus Serotype Distribution in the Philippines

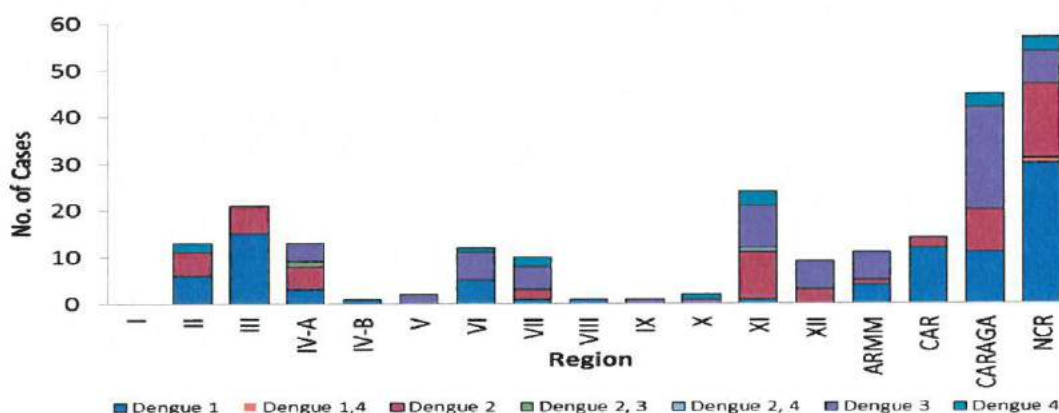
Dengue Fever/Dengue Hemorrhagic Fever has emerged as a major public health problem in the past 20 years, with an increasing incidence and expanding geographical distribution in both the vector and the disease (Gubler, 2002). Increased human migration and travel, climate change, urbanization and social changes have all contributed to this resurgence. These factors will continue to increase in the future, thus, an effective prevention and control program needs to be in place in order to predict and prevent epidemics.

Dengue is considered a Category II notifiable disease in the syndromic based Philippine Integrated Disease Surveillance and Response (PIDSR) of the country lead by the Epidemiology Bureau. Dengue cases from health facilities nationwide are reported to the NEC on a weekly basis. However, laboratory confirmation of these cases has been limited. An active surveillance obtained from a smaller percentage of cases on a sentinel basis may provide a more detailed serotype-specific incidence data. Using the data from both systems, disease burden estimates could be determined.

The Research Institute for Tropical Medicine (RITM) served as the National Reference Laboratory for Dengue and other arboviruses together with NEC has started laboratory confirmation of Dengue cases in 2008, thus providing the serotype incidence over the years. With that, the Epidemiology Bureau – Philippine Integrated Disease Surveillance and Response (PIDSR), in collaboration with the Research Institute for Tropical Medicine (RITM), has developed a guideline entitled, “**Interim Guidelines on the Sentinel-based Active Dengue Surveillance**” (DM 2014-0112).

Dengue serotype data are based on samples systematically collected from 20 sentinel site hospitals in all regions of the Philippines. Based from the Sentinel Based Active Dengue Surveillance, there were 236 laboratory confirmed dengue cases in the Philippines, in which all four DENV serotypes were present from January 1 to July 18, 2015. The predominant serotype is **DENV-1** (38.1%) followed by **DENV-3** (29.2%), mostly occurring in the NCR region (24.2%).

**Fig. 8 Confirmed Dengue Cases by Region and Serotype  
Philippines, as of July 18, 2015 (n=236)**

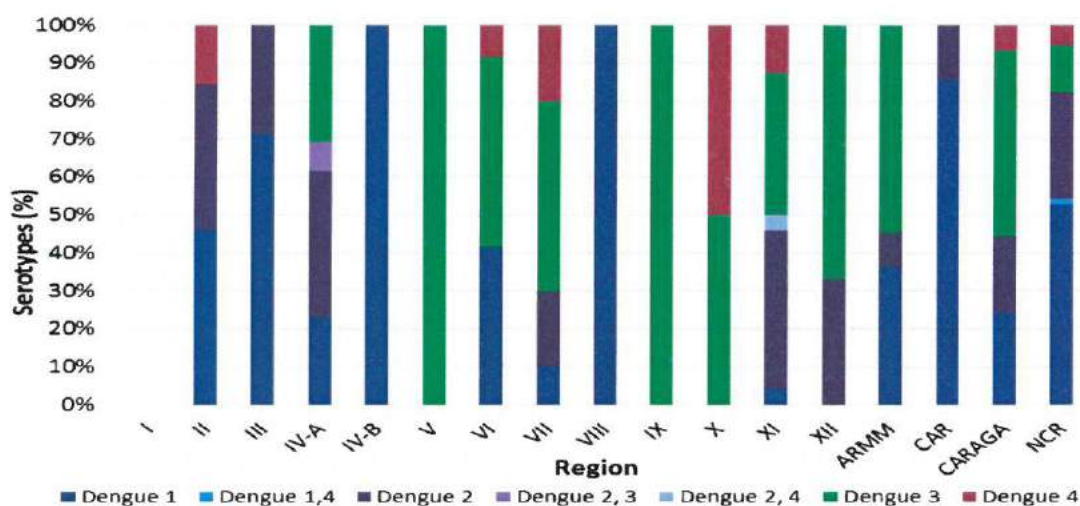


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**Fig. 9 Dengue virus serotype distribution in the Philippines, as of July 18, 2015 (n=236)**



**Table 1. Dengue Cases & Deaths by Region**  
 Philippines, 2015\* vs 2014

Region	Cases			Deaths			
	2015	2014	% Change	2015	CFR (%)	2014	CFR (%)
I	1936	1618	↑ 19.7	7	0.36	3	0.19
II	2113	997	↑ 111.9	5	0.24	8	0.80
III	5056	3093	↑ 63.5	5	0.10	4	0.13
IV-A	6400	3425	↑ 86.9	16	0.25	9	0.26
IV-B	556	865	↓ -35.7	2	0.36	4	0.46
V	542	401	↑ 35.2	1	0.18	2	0.50
VI	1661	2801	↓ -40.7	4	0.24	12	0.43
VII	2371	2164	↑ 9.6	12	0.51	10	0.46
VIII	604	3608	↓ -83.3	4	0.66	14	0.39
IX	2179	3171	↓ -31.3	7	0.32	14	0.44
X	4071	3815	↑ 6.7	17	0.42	24	0.63
XI	1871	3507	↓ -46.6	7	0.37	18	0.51
XII	3137	3865	↓ -18.8	13	0.41	27	0.70
ARMM	797	560	↑ 42.3	6	0.75	4	0.71
CAR	1059	904	↑ 17.1	1	0.09	1	0.11
CARAGA	1502	3710	↓ -59.5	7	0.47	18	0.49
NCR	4738	2362	↑ 100.6	20	0.42	4	0.17
Total	40593	40866	↓ -0.67	134	0.33	176	0.43

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**Table 2. Weekly Dengue Summary Report by Region**  
 Philippines, as of July 18, 2015

Region	Morbidity Week				28th Morbidity Week		Cumulative Total	
	24	25	26	27	2015	2014	1st wk to 28th wk	
I	165	109	24	24	4	202	1936	1618
II	134	174	117	12	4	47	2113	997
III	183	177	280	216	13	149	5056	3093
IV-A	181	243	271	269	100	160	6400	3425
IV-B	43	26	29	25	12	55	556	865
V	16	23	30	30	8	26	542	401
VI	87	93	79	80	2	330	1661	2801
VII	62	63	50	31	23	136	2371	2164
VIII	15	7	15	9	5	135	604	3608
IX	54	20	3	9	3	259	2179	3171
X	151	157	137	137	65	313	4071	3815
XI	82	76	94	110	9	325	1871	3507
XII	195	147	90	33	0	195	3137	3865
ARMM	37	23	28	15	2	49	797	560
CAR	87	91	120	86	23	76	1059	904
CARAGA	48	45	34	17	4	222	1502	3710
NCR	110	109	73	38	2	54	4738	2362
<b>Total</b>	<b>1650</b>	<b>1583</b>	<b>1474</b>	<b>1141</b>	<b>279</b>	<b>2733</b>	<b>40593</b>	<b>40866</b>

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## Treatment

- Do not give aspirin for fever.
- Give sufficient amount of water or rehydrate a dengue suspect.
- If fever or symptoms persist for 2 or more days, bring the patient to the nearest hospital.

## Prevention and Control

Follow the 4-S against Dengue:

1. Search and Destroy
  - Cover water drums and pails.
  - Replace water in flower vases once a week.
  - Clean gutters of leaves and debris.
  - Collect and dispose all unsuitable tin, cans, jars, bottles and other items that can collect and hold water.
2. Self-protection Measures
  - Wear long pants and long sleeved shirt.




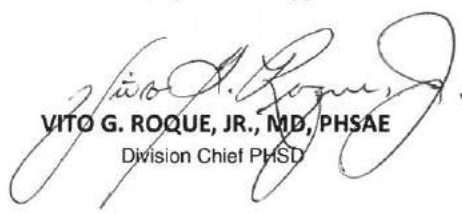
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- Use mosquito repellent every day.
3. Seek Early Consultation
    - Consult the doctors immediately if fever persist after 2 days and rashes appears.
  4. Say Yes to Fogging When There is an Impending Outbreak or a Hotspot.


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
  
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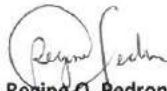
  
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