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**Trend**

A total of 2,231 suspect measles cases were reported nationwide from January 1 to June 27, 2015. Of these, 595 (26.67%) were classified as laboratory confirmed (534) and epi-linked (61) cases (see Table 1). The number of confirmed measles cases decreased significantly in 2015 (97.49%) compared with last year (see Table 2).

Figure 3 shows the distribution of confirmed measles cases by morbidity month. The data includes laboratory confirmed and epi-linked confirmed measles cases.

**Geographic distribution**

The distribution of confirmed measles cases varied considerably among the regions (see Figure 2). Most of the confirmed cases came from Region XI (19.50%), Region IX (16.97%), Region X (10.25%) and CARAGA (10.25%).

**Profile of cases**

Fifty two percent of the confirmed measles cases were male. Majority of the confirmed cases belonged to children less than 9 months old (20.34%). Among the confirmed measles cases, 188 (32%) were vaccinated with measles containing vaccine, 341 (57%) were not vaccinated and 66 (11%) have unknown vaccination status. Two among the confirmed measles cases died (CFR=0.34).

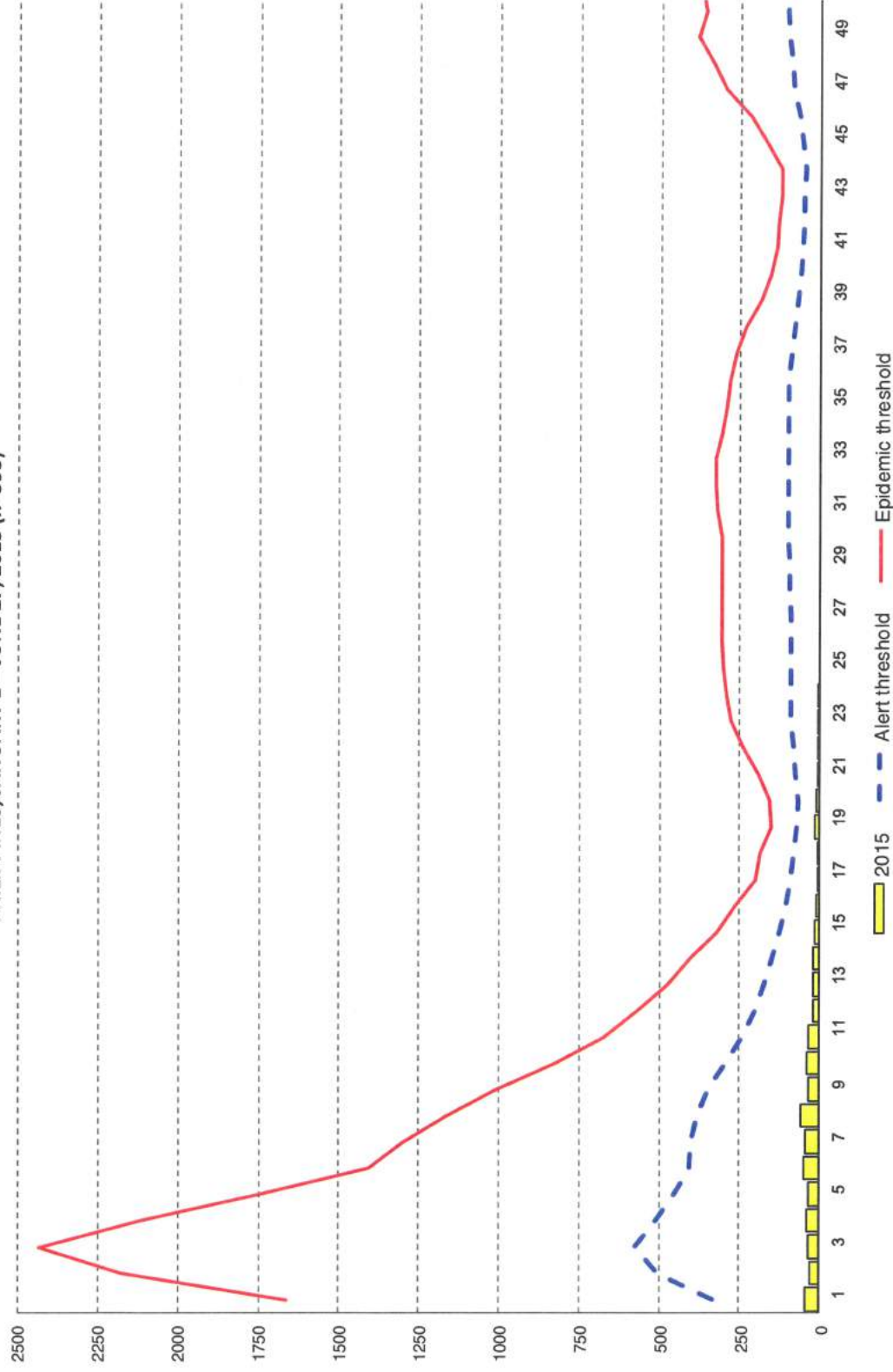
**TABLE 1. MEASLES AND RUBELLA CASES BY REGION  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015 (N=2,231)**

REGION	TARGET 2/100K	REPORTED	CONFIRMED MEASLES		MEASLES COMPATIBLE	CONFIRMED RUBELLA		DISCARDED AS NON- MEASLES/RUBELLA	PENDING CLASSIFICATION
			LABORATORY CONFIRMED	EPI-LINKED CONFIRMED		LABORATORY CONFIRMED	EPI-LINKED CONFIRMED		
1	101	83	4	0	32	7	0	39	1
2	69	86	10	1	46	3	0	22	4
3	226	91	3	0	12	7	0	68	1
4A	294	225	8	1	88	16	0	109	3
4B	60	32	1	0	18	5	0	8	0
5	117	9	1	0	1	0	0	7	0
6	152	204	59	0	9	36	0	94	6
7	149	101	42	0	6	8	0	44	1
8	88	123	10	5	106	0	0	2	0
9	75	234	92	9	82	1	0	50	0
10	95	257	52	9	169	2	0	23	2
11	99	220	104	12	46	3	0	50	5
12	93	176	47	6	92	1	0	29	1
ARMM	70	57	5	1	42	0	0	9	0
CAR	35	92	36	0	11	1	0	43	1
CRG	52	104	45	16	22	1	0	19	1
NCR	260	137	15	1	47	10	0	62	2
PHL	2,035	2,231	534	61	829	101	0	678	28



Morbidity Week	2015 Cases	Alert Threshold	Epidemic Threshold
1	44	335	1,255
2	28	502	2,795
3	35	576	2,672
4	42	513	2,396
5	35	456	1,637
6	51	407	1,518
7	43	403	1,359
8	61	384	1,299
9	37	346	1,035
10	40	294	837
11	33	242	707
12	20	204	571
13	21	173	511
14	22	151	418
15	16	126	348
16	12	108	228
17	8	91	237
18	7	82	171
19	18	72	163
20	10	70	151
21	2	77	188
22	5	85	256
23	4	92	305
24	1	93	322
25	0	94	317
26		95	330
27		95	342
28		97	318
29		96	327
30		100	343
31		103	319
32		104	373
33		103	351
34		102	328
35		101	309
36		101	304
37		93	294
38		85	250
39		73	184
40		66	148
41		60	165
42		55	127
43		53	127
44		51	142
45		60	126
46		70	255
47		87	293
48		93	396
49		102	387
50		108	461
51		93	405
52		85	337

FIGURE 1. CONFIRMED\* MEASLES ALERT AND EPIDEMIC THRESHOLD  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015 (n=595)

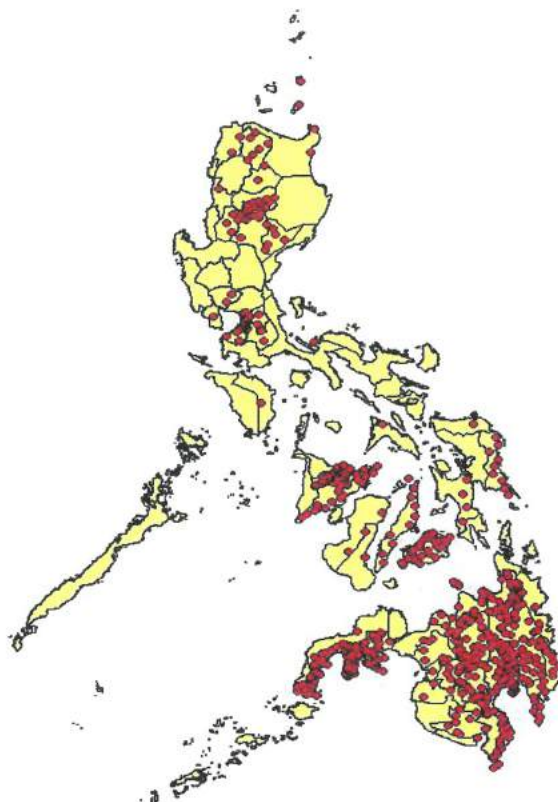


Confirmed\* Measles cases = Laboratory confirmed + Epi-linked confirmed Measles





**FIGURE 2. DISTRIBUTION OF CONFIRMED\* MEASLES CASES  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015 (n=595)**



**TABLE 2. CONFIRMED\* MEASLES CASES AND DEATHS BY REGION  
PHILIPPINES, 2014 vs. 2015\*\***

REGION	CASES			DEATHS			
	2015	2014	% CHANGE	2015	CFR (%)	2014	CFR (%)
1	4	761	↓ -99.47	0	0.00	7	0.92
2	11	667	↓ -98.35	0	0.00	1	0.15
3	3	2,815	↓ -99.89	0	0.00	11	0.39
4A	9	4,818	↓ -99.81	0	0.00	36	0.75
4B	1	347	↓ -99.71	0	0.00	4	1.15
5	1	663	↓ -99.85	0	0.00	5	0.75
6	59	942	↓ -93.74	0	0.00	1	0.11
7	42	1,143	↓ -96.33	0	0.00	3	0.26
8	15	273	↓ -94.51	0	0.00	4	1.47
9	101	268	↓ -62.31	0	0.00	0	0.00
10	61	925	↓ -93.41	0	0.00	3	0.32
11	116	1,617	↓ -92.83	2	1.72	3	0.19
12	53	1,273	↓ -95.84	0	0.00	2	0.16
ARMM	6	439	↓ -98.63	0	0.00	3	0.68
CAR	36	213	↓ -83.10	0	0.00	0	0.00
CRG	61	756	↓ -91.93	0	0.00	2	0.26
NCR	16	5,823	↓ -99.73	0	0.00	32	0.55
<b>PHL</b>	<b>595</b>	<b>23,743</b>	<b>↓ -97.49</b>	<b>2</b>	<b>0.34</b>	<b>117</b>	<b>0.49</b>

2015\*\* = as of June 27, 2015

Confirmed\* Measles cases = Laboratory confirmed + Epi-linked confirmed Measles



**FIGURE 3. CONFIRMED\* MEASLES CASES BY REGION AND MONTH  
PHILIPPINES, 2014 (n=23,743) VS. 2015\*\* (n=595)**

2015 CASES 2014 CASES

FIGURE 3.1.

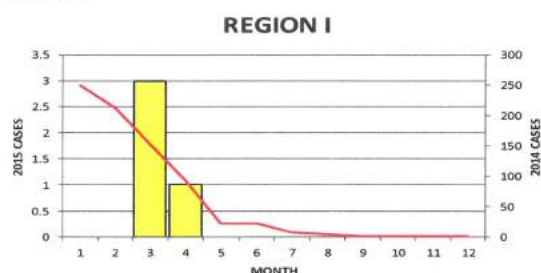


FIGURE 3.2.

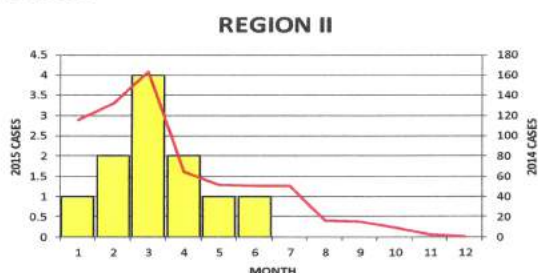


FIGURE 3.3.

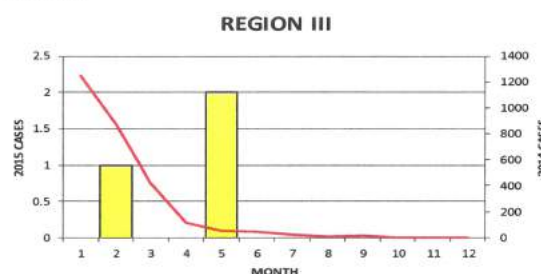


FIGURE 3.5.

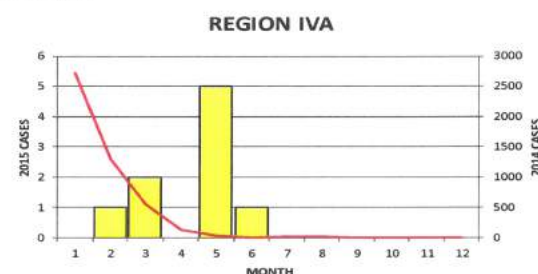


FIGURE 3.6.

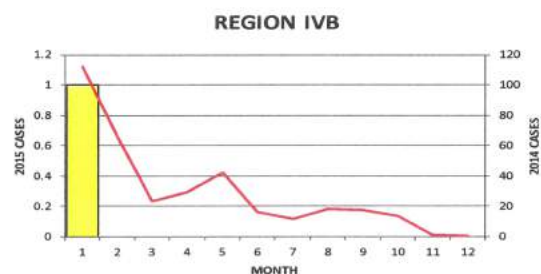


FIGURE 3.7.

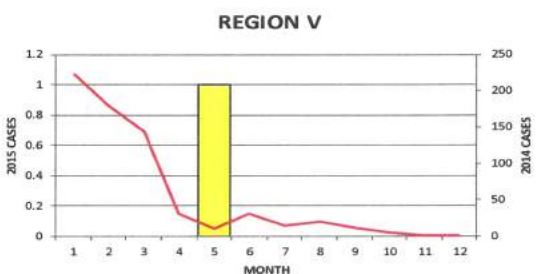


FIGURE 3.8.

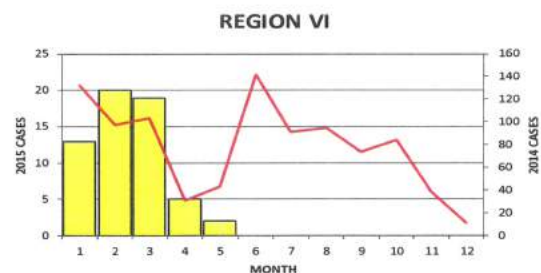


FIGURE 3.9.

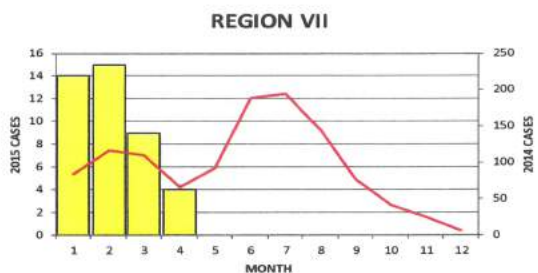


FIGURE 3.10.

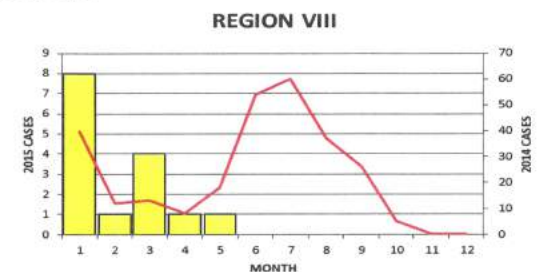


FIGURE 3.11.

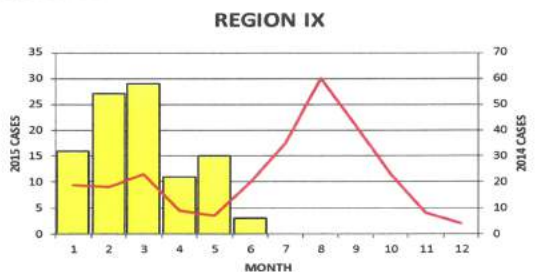




FIGURE 3.12.

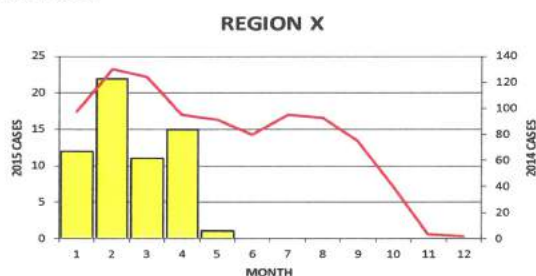


FIGURE 3.13.

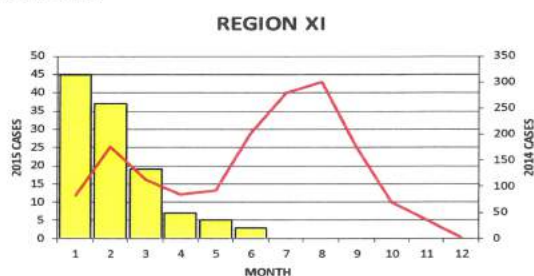


FIGURE 3.14.

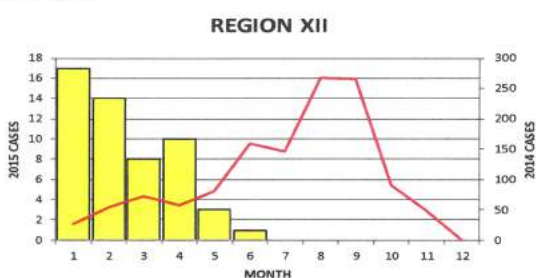


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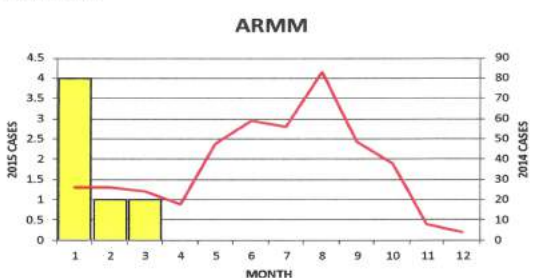


FIGURE 3.16.

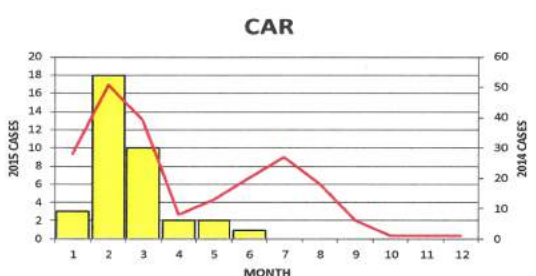


FIGURE 3.17.

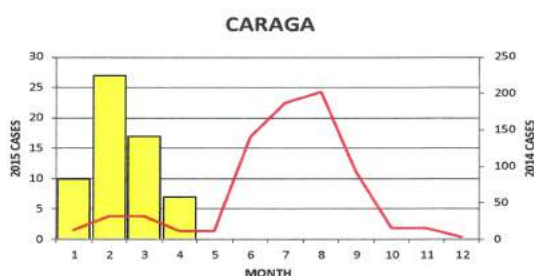


FIGURE 3.18.

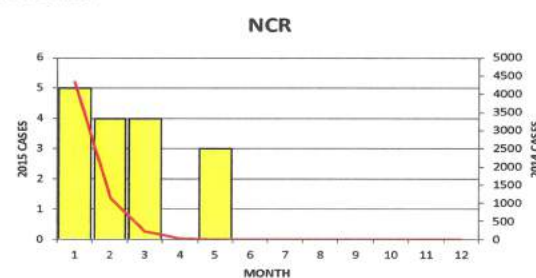


FIGURE 3.19.



2015\*\* = as of June 27, 2015

Confirmed\* Measles cases = Laboratory confirmed + Epi-linked confirmed Measles





FIGURE 4. IMMUNIZATION STATUS OF CONFIRMED\* MEASLES CASES BY AGE GROUP  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015 (n=595)

VACCINATED NOT VACCINATED UNKNOWN

FIGURE 4.1.

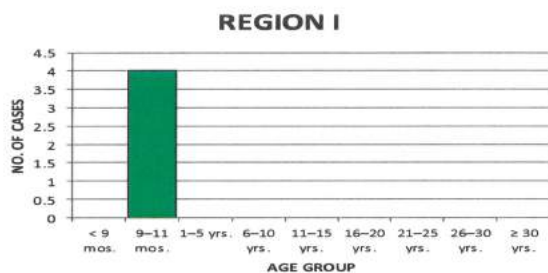


FIGURE 4.2.

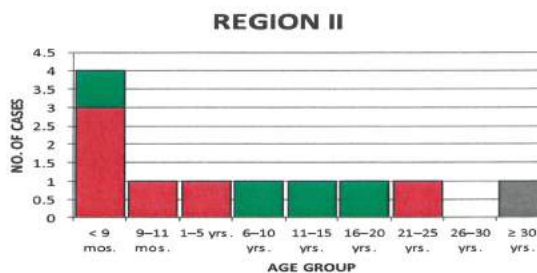


FIGURE 4.3.

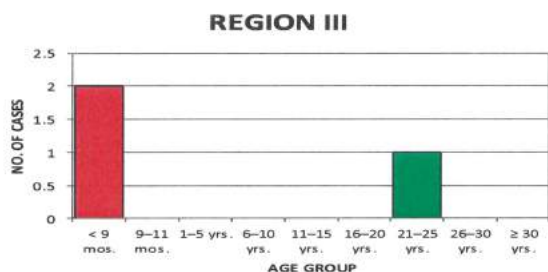


FIGURE 4.4.

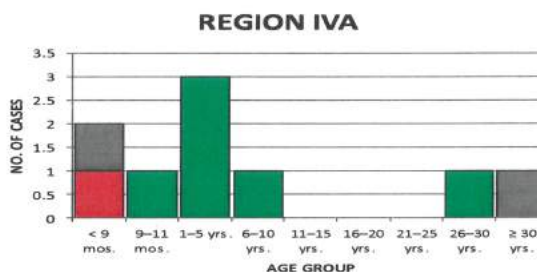


FIGURE 4.5.

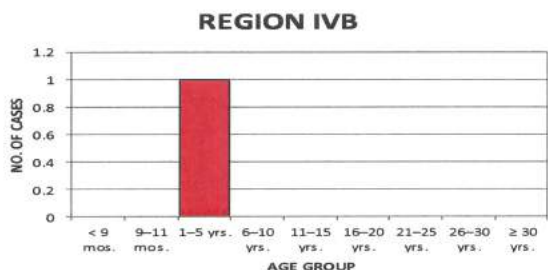


FIGURE 4.6.

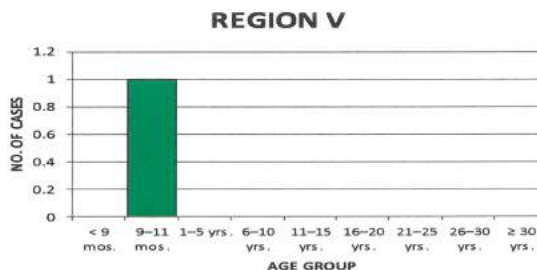


FIGURE 4.7.

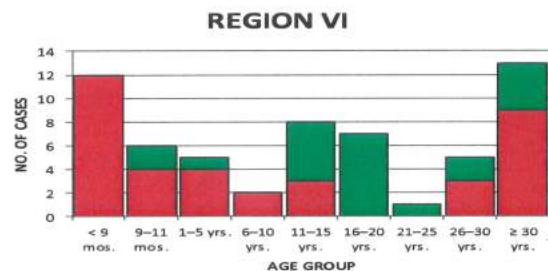


FIGURE 4.8.

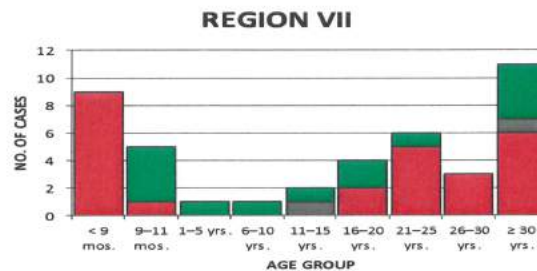


FIGURE 4.9.

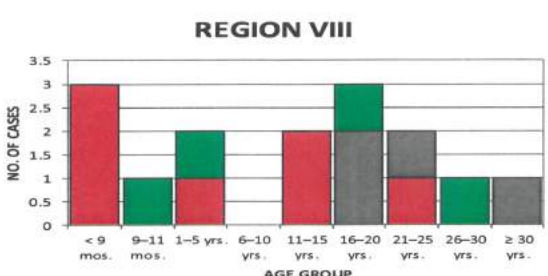


FIGURE 4.10.

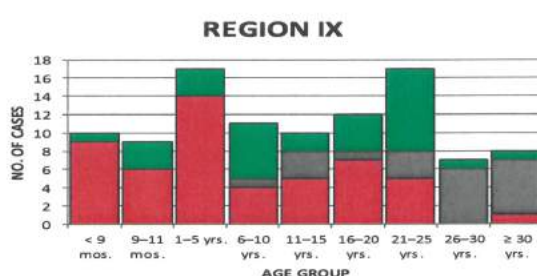




FIGURE 4.11.

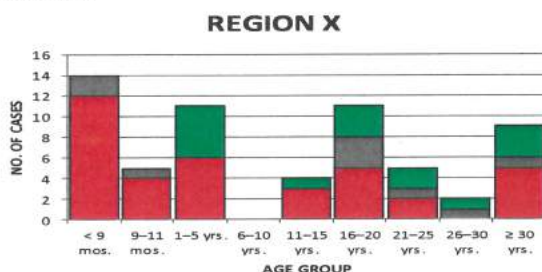


FIGURE 4.12.

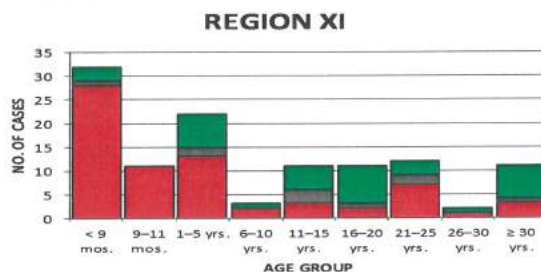


FIGURE 4.13.

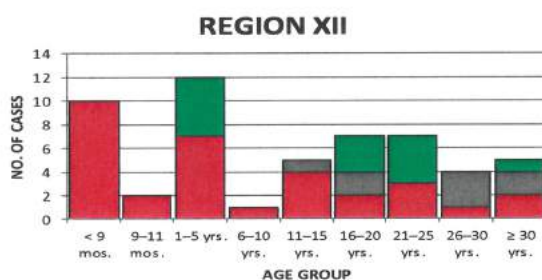


FIGURE 4.14.

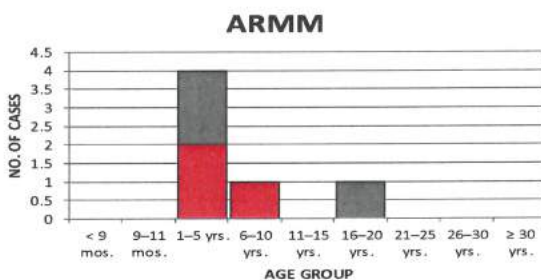


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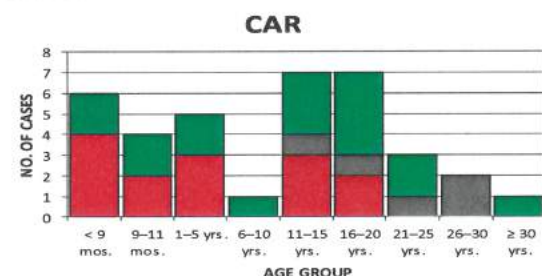


FIGURE 4.16.

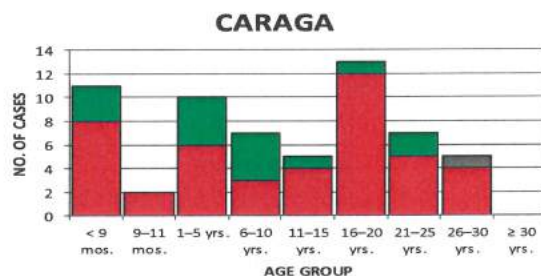


FIGURE 4.17.

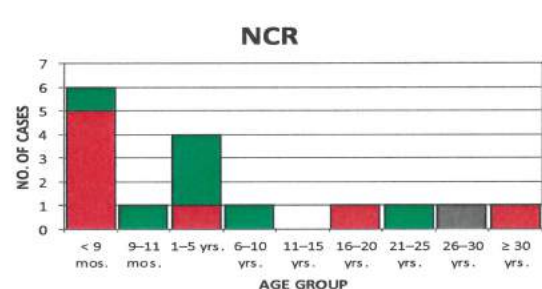
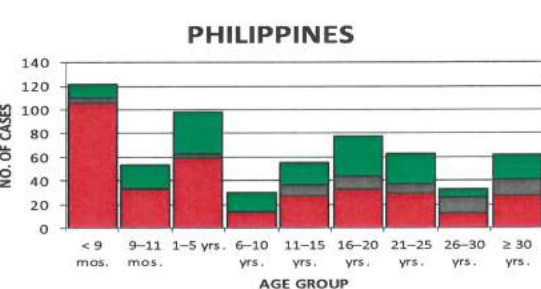


FIGURE 4.18.



Confirmed\* Measles cases = Laboratory confirmed + Epi-linked confirmed Measles



FIGURE 5. MCV DOSE RECEIVED AMONG CONFIRMED\* VACCINATED CASES BY AGE GROUP  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015 (n=188)

1 DOSE    ≥2 DOSES    UNKNOWN

FIGURE 5.1.

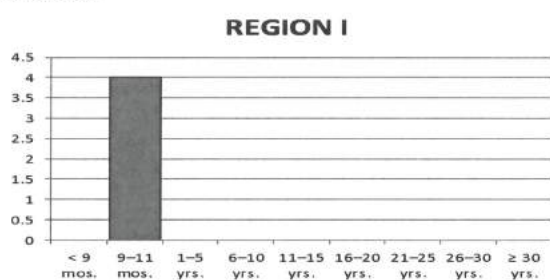


FIGURE 5.2.

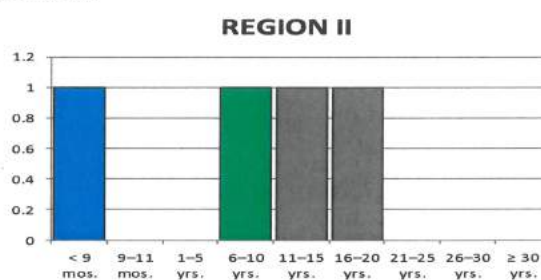


FIGURE 5.3.

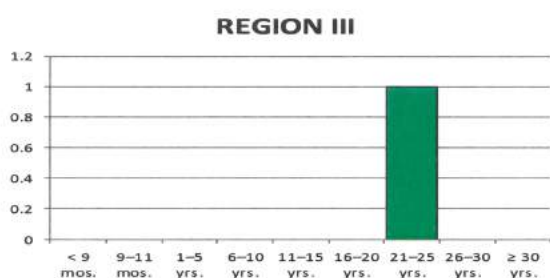


FIGURE 5.4.

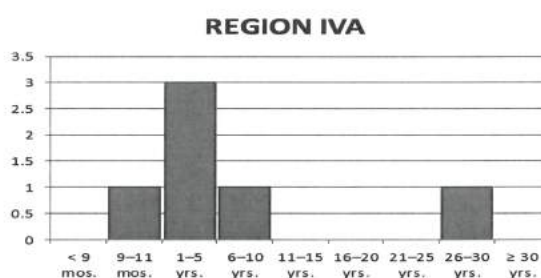


FIGURE 5.5.

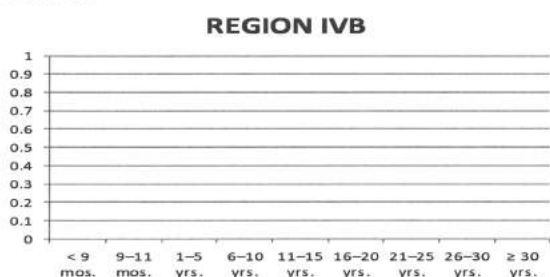


FIGURE 5.6.

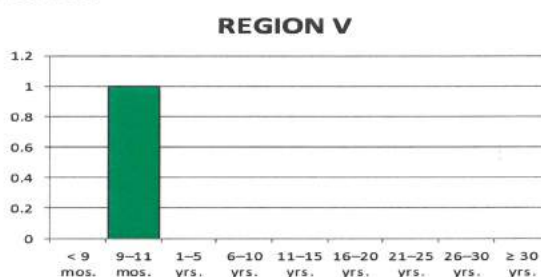


FIGURE 5.7.

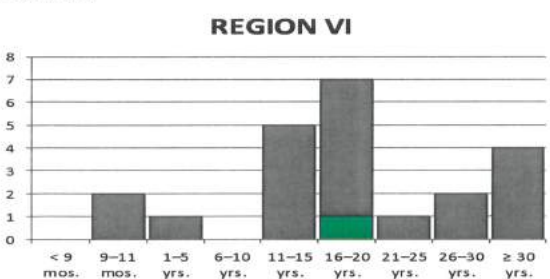


FIGURE 5.8.

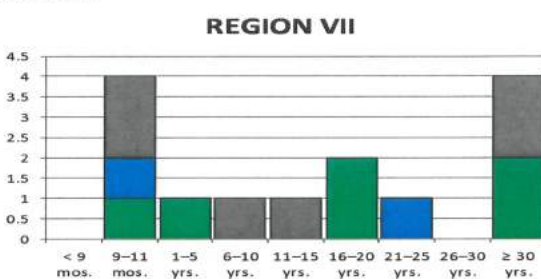


FIGURE 5.9.

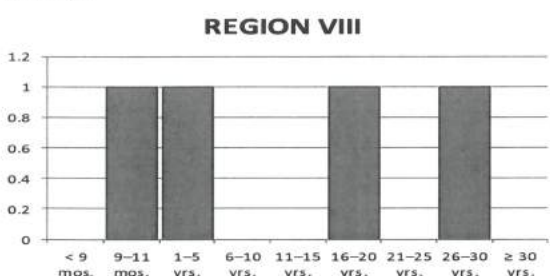


FIGURE 5.10.

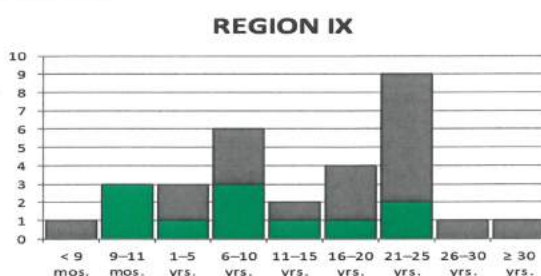






FIGURE 5.11.

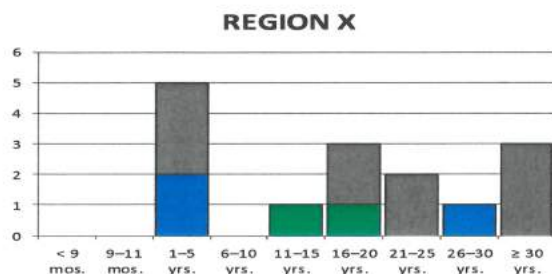


FIGURE 5.12.

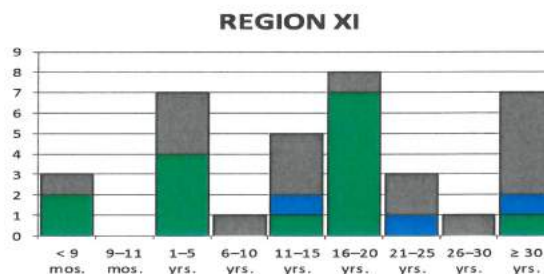


FIGURE 5.13.

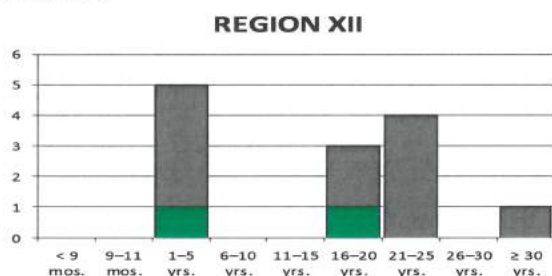


FIGURE 5.14.

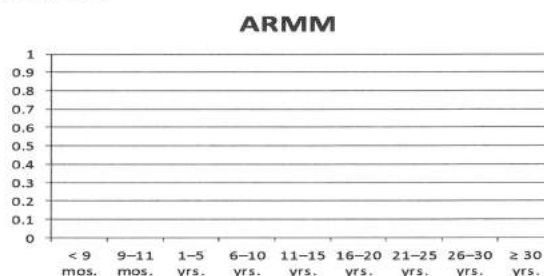


FIGURE 5.15.

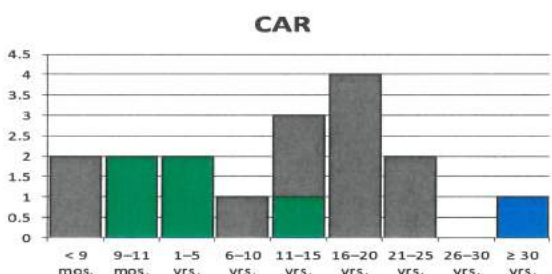


FIGURE 5.16.

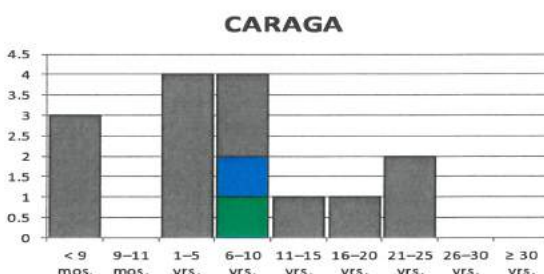


FIGURE 5.17.

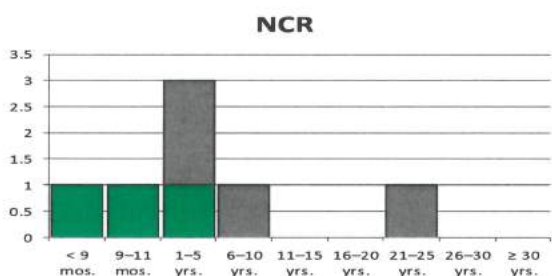
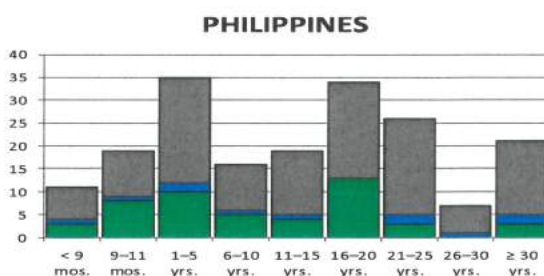


FIGURE 5.18.



Confirmed\* Measles cases = Laboratory confirmed + Epi-linked confirmed Measles



FIGURE 6. REASONS FOR NON-VACCINATION OF CONFIRMED\* UNVACCINATED MEASLES CASES  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015 (n=341)

FIGURE 6.1.

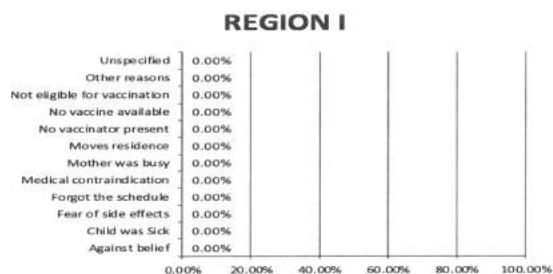


FIGURE 6.2.

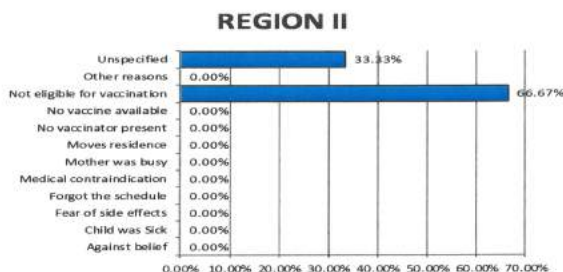


FIGURE 6.3.

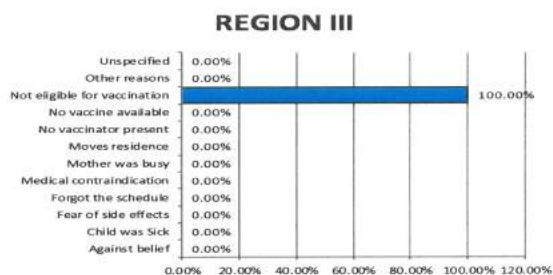


FIGURE 6.4.

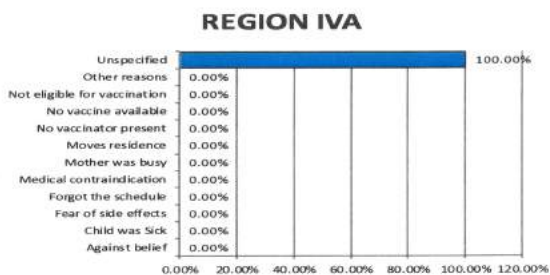


FIGURE 6.5.

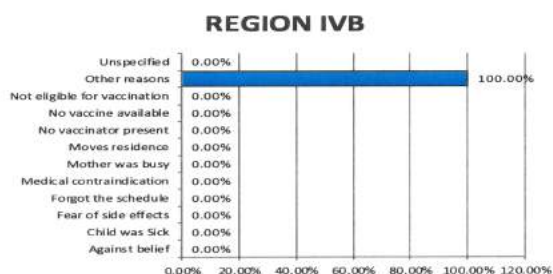


FIGURE 6.6.

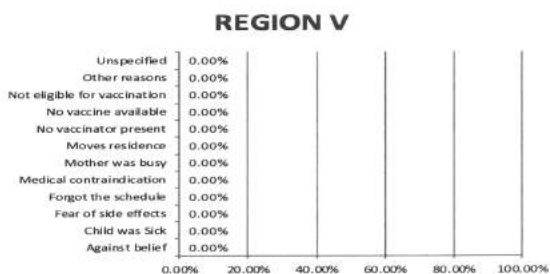


FIGURE 6.7.

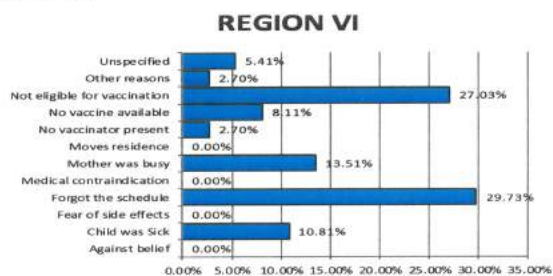


FIGURE 6.8.

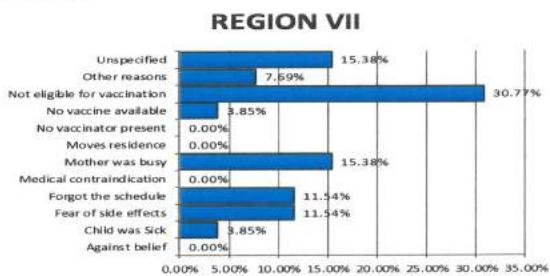


FIGURE 6.9.

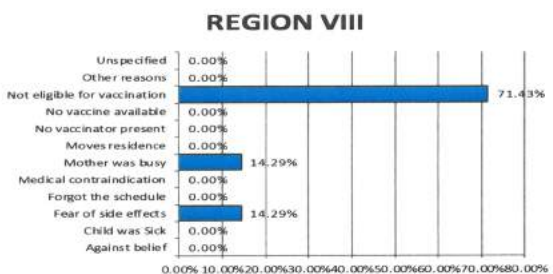


FIGURE 6.10.

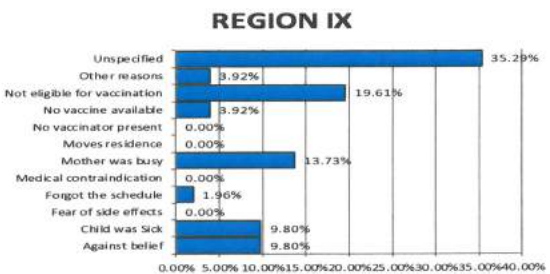




FIGURE 6.11.

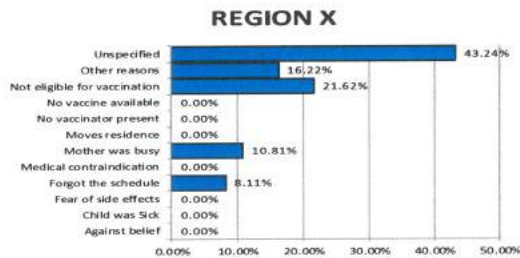


FIGURE 6.12.

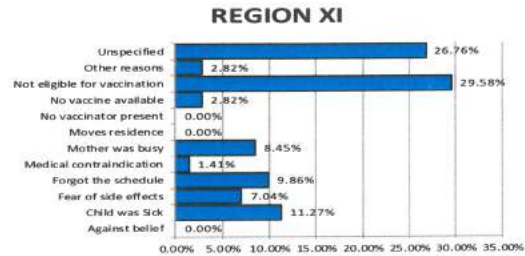


FIGURE 6.13.

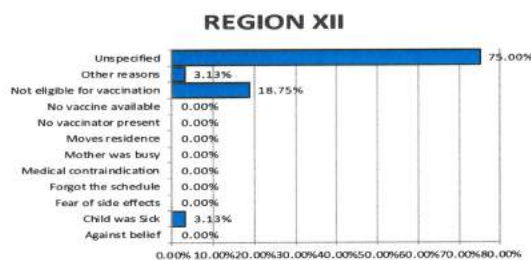


FIGURE 6.14.



FIGURE 6.15.

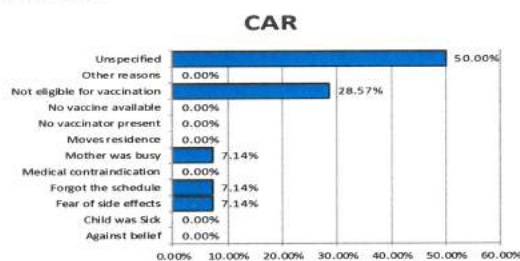


FIGURE 6.16.

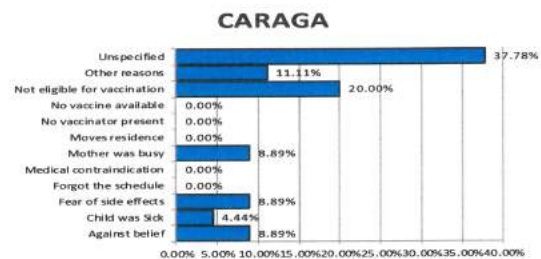


FIGURE 6.17.

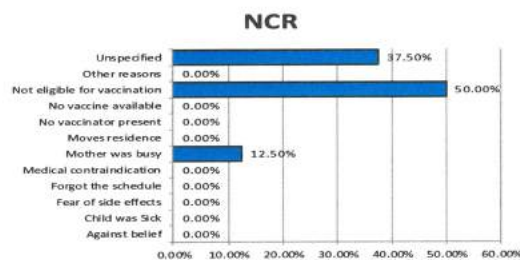
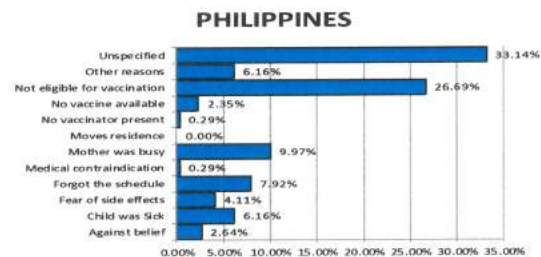


FIGURE 6.18.



Confirmed\* Measles cases = Laboratory confirmed + Epi-linked confirmed Measles





FIGURE 7. CONFIRMED\* MEASLES CASES BY AGE GROUP AND SEX  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015 (n=595)

MALE FEMALE

FIGURE 7.1.

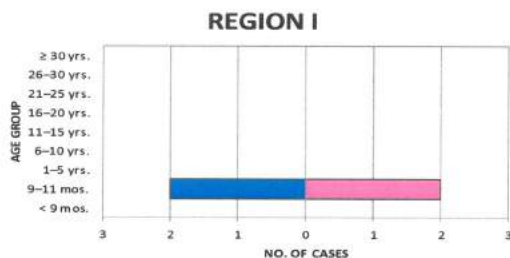


FIGURE 7.2.

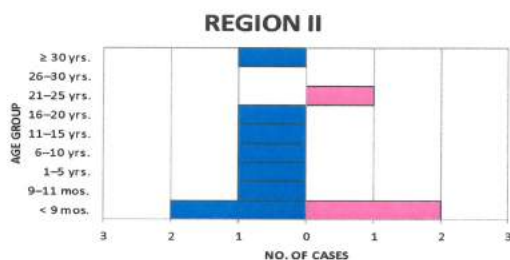


FIGURE 7.3.

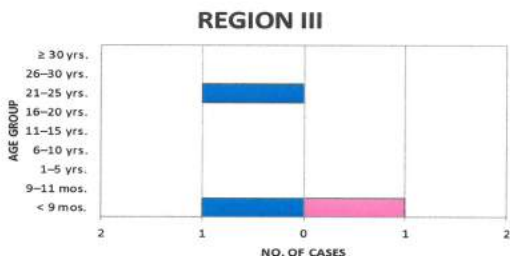


FIGURE 7.4.

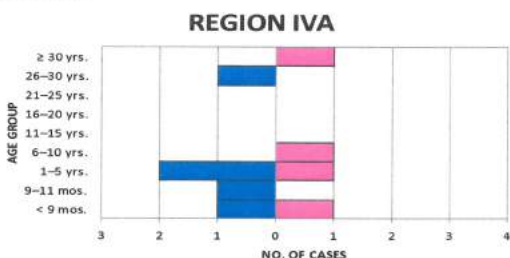


FIGURE 7.5.

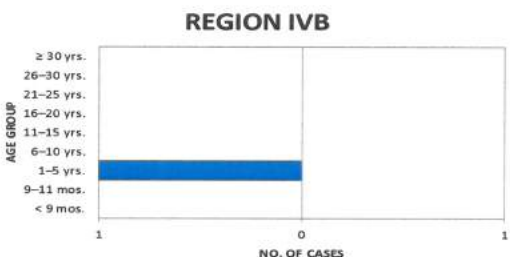


FIGURE 7.6.



FIGURE 7.7.

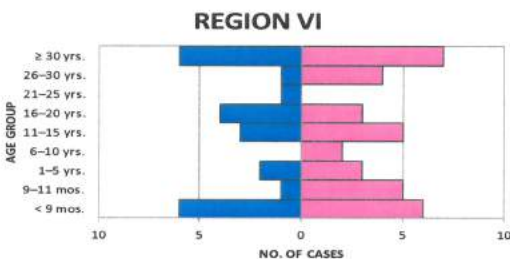


FIGURE 7.8.

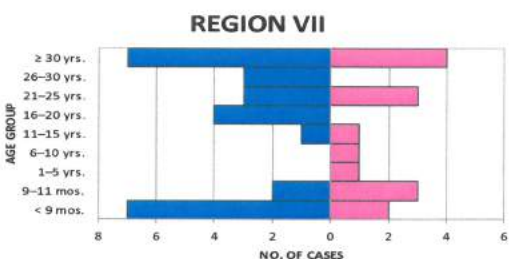


FIGURE 7.9.

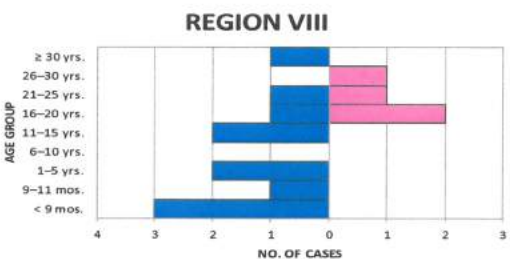


FIGURE 7.10.

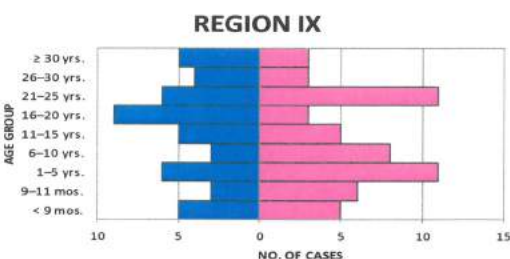




FIGURE 7.11.



FIGURE 7.12.

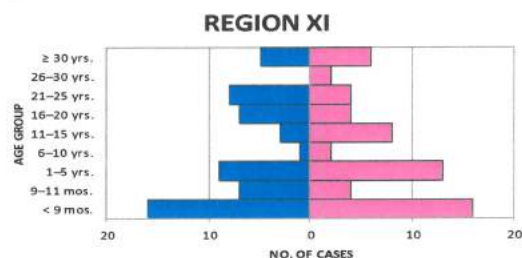


FIGURE 7.13.

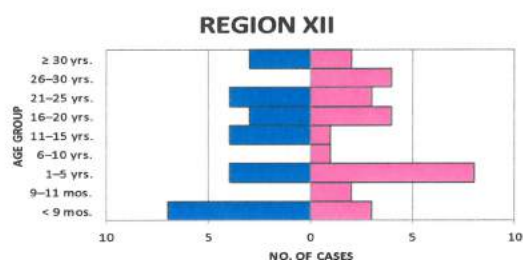


FIGURE 7.14.

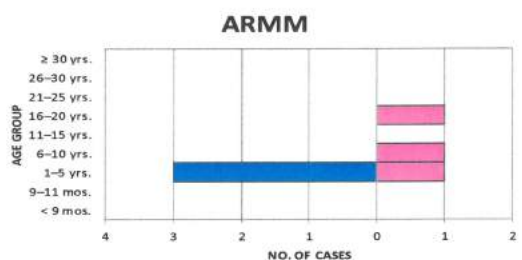


FIGURE 7.15.

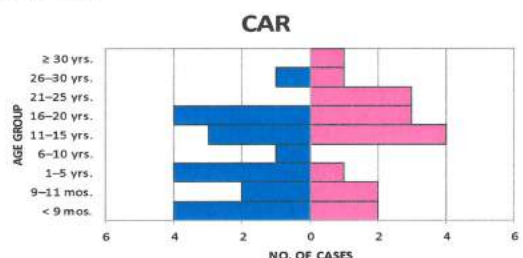


FIGURE 7.16.

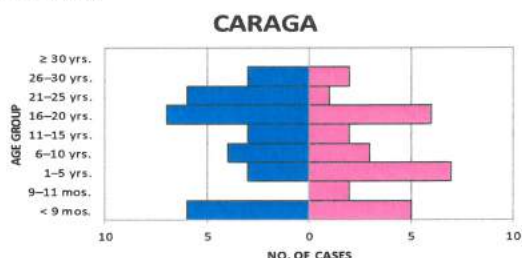


FIGURE 7.17.

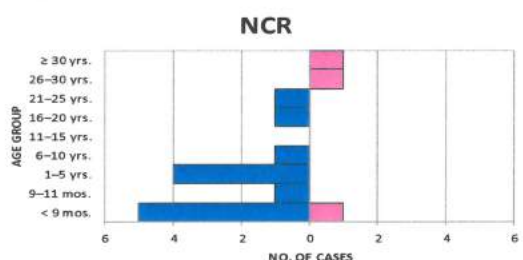
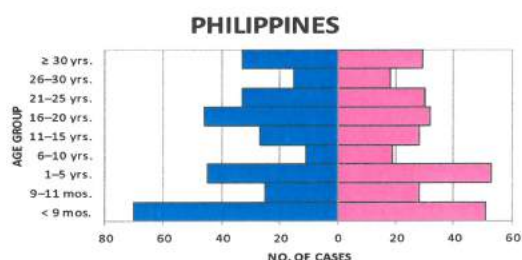


FIGURE 7.18.



Confirmed\* Measles cases = Laboratory confirmed + Epi-linked confirmed Measles



**FIGURE 8. CASE FATALITY RATIO AMONG CONFIRMED\* MEASLES CASES BY AGE GROUP  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015 (n=2)**

FIGURE 8.1.

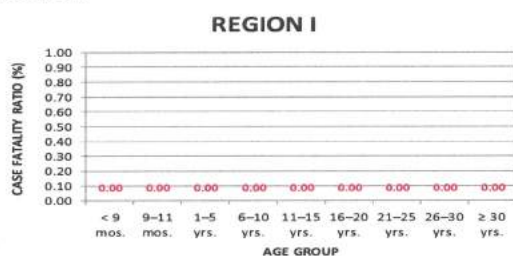


FIGURE 8.2.

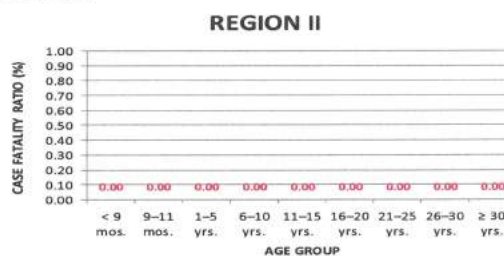


FIGURE 8.3.

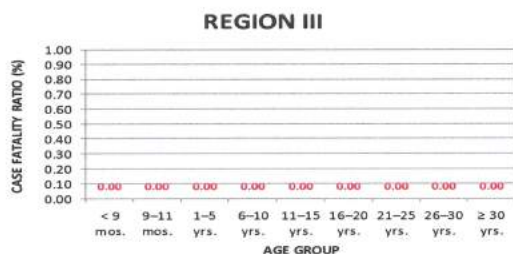


FIGURE 8.4.

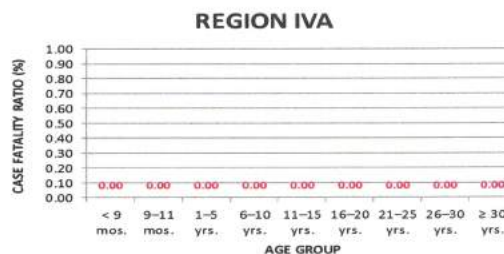


FIGURE 8.5.

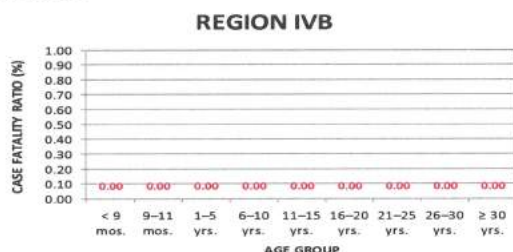


FIGURE 8.6.

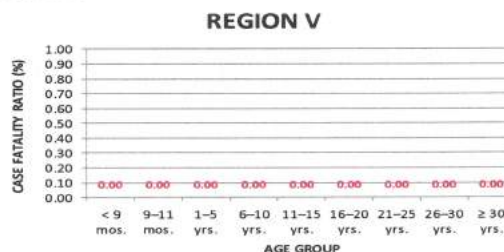


FIGURE 8.7.

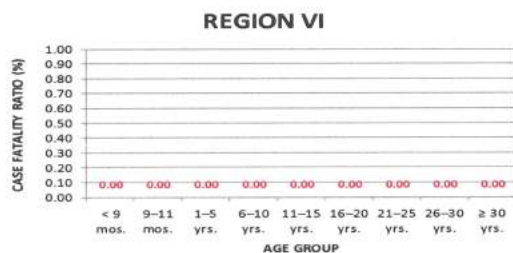


FIGURE 8.8.

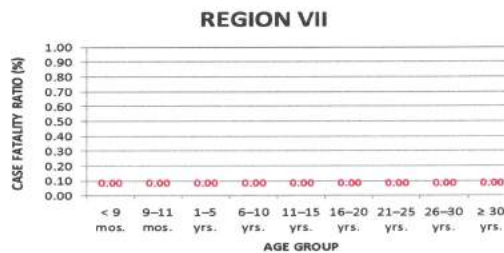


FIGURE 8.9.

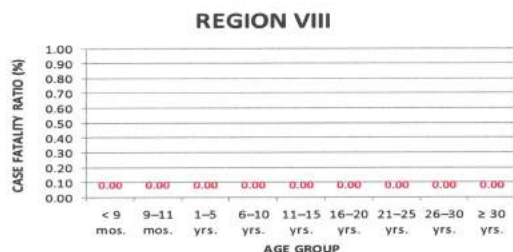


FIGURE 8.10.

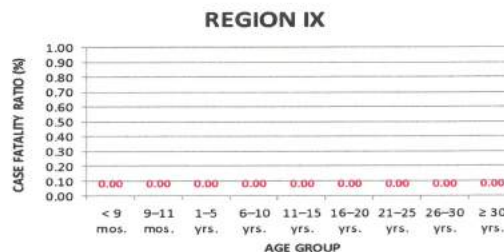






FIGURE 8.11.

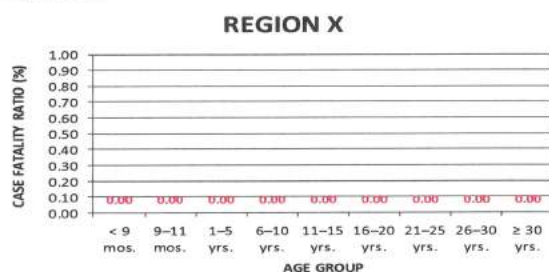


FIGURE 8.12.

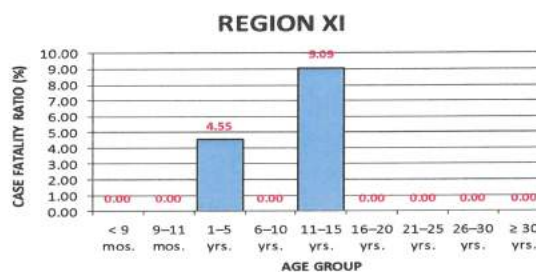


FIGURE 8.13.

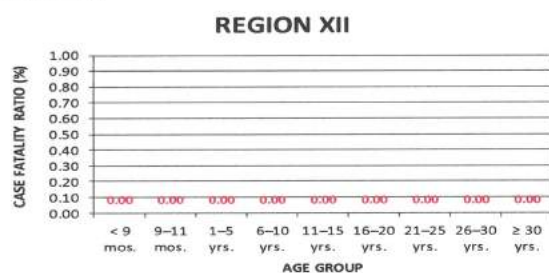


FIGURE 8.14.

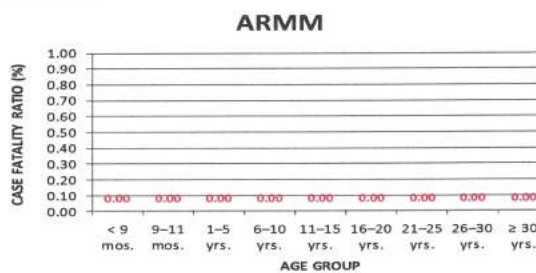


FIGURE 8.15.

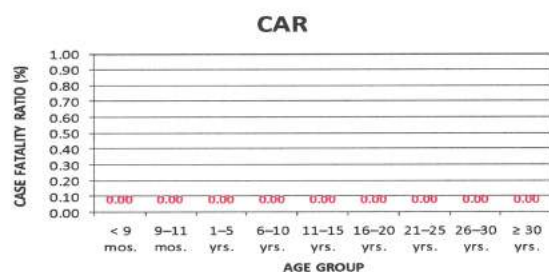


FIGURE 8.16.

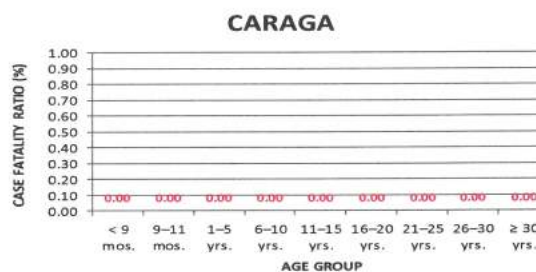


FIGURE 8.17.

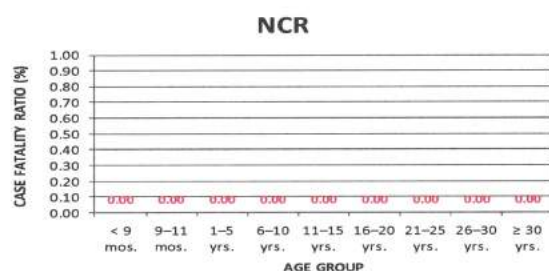
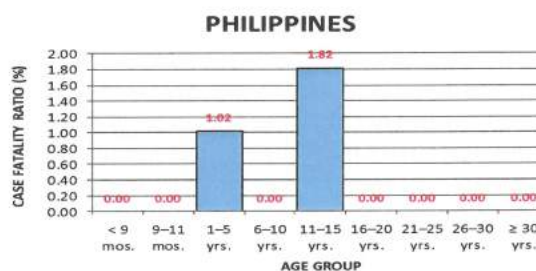


FIGURE 8.18.



Confirmed\* Measles cases = Laboratory confirmed + Epi-linked confirmed Measles



### Measles Elimination in the Philippines

The goal for Measles elimination in the Western Pacific Region was set in 2005. In September 2012, the Regional Committee for the Western Pacific Region encouraged its member states to undertake the challenges for Measles elimination.

The Department of Health through the Epidemiology Bureau take part in achieving this goal by closely monitoring the standard surveillance indicators to ensure that the Measles elimination goal will be attained and sustained. Currently, the Philippines has exceeded the low incidence target rate of <1/1million population (11.69/1,000,000 population), illustrating that the country needs to exert more efforts in attaining the elimination goal.

**TABLE 3. MEASLES SURVEILLANCE INDICATORS BY REGION  
PHILIPPINES, JANUARY 1 – JUNE 27, 2015**

REGION	MEASLES INCIDENCE RATE		BLOOD ADEQUACY RATE		SUSPECT MEASLES CASES ADEQUATELY INVESTIGATED		SUSPECT MEASLES REPORTING RATE		NON-MEASLES/ NON-RUBELLA RATE		MEASLES COMPATIBLE %	
	Target: <1/1,000,000 Pop.		Target: ≥80%		Target: ≥80%		Target: ≥2/100,000 Pop.		Target: ≥2/100,000 Pop.		Target: <10%	
	2014	2015*	2014	2015	2014	2015	2014	2015*	2014	2015*	2014	2015
1	152.42	1.58	91	76	80	49	48.23	3.29	3.89	1.54	59	39
2	195.19	6.35	65	75	53	55	60.25	4.97	2.19	1.27	64	53
3	254.46	0.53	79	91	59	48	58.94	1.61	4.10	1.20	49	13
4A	337.15	1.22	72	66	33	29	64.92	3.06	4.21	1.48	41	39
4B	117.53	0.67	43	50	27	22	62.90	2.13	2.17	0.53	77	56
5	115.22	0.34	71	100	60	89	35.12	0.31	2.10	0.24	61	11
6	125.53	15.52	96	97	52	65	33.69	5.37	7.45	2.47	38	4
7	156.38	11.30	90	99	66	91	29.72	2.72	3.89	1.18	33	6
8	63.18	6.86	24	19	15	15	32.44	5.62	1.94	0.09	74	86
9	72.87	53.94	65	68	52	54	21.07	12.50	1.50	2.67	58	35
10	197.91	25.58	63	46	52	34	54.09	10.78	3.51	0.96	57	66
11	333.87	46.99	84	93	73	56	69.64	8.91	6.71	2.03	42	21
12	280.13	22.77	50	52	39	38	93.65	7.56	4.40	1.25	65	52
ARMM	126.76	3.41	46	43	33	14	45.13	3.24	1.24	0.51	69	74
CAR	122.88	40.85	96	92	86	63	37.73	10.44	5.13	4.88	51	12
CRG	292.86	46.58	78	82	70	32	76.82	7.94	5.58	1.45	54	21
NCR	456.60	2.47	71	68	41	16	108.33	2.11	5.37	0.96	53	34
PHL	237.73	11.69	71	70	48	44	59.27	4.38	4.15	1.33	52	37

2015\* - Annualized rate

### Definition of Terms:

**Laboratory confirmed measles case** – A suspect measles case with a positive laboratory test result for measles-specific IgM antibodies or other approved laboratory test method

**Laboratory confirmed rubella case** – A suspect measles case with a positive laboratory test result for rubella-specific IgM antibodies or other approved laboratory test method

**Clinically measles compatible case** – A case that meets the suspect case definition for measles but for which no adequate blood specimen was taken and which has not been linked epidemiologically to another case positive for measles IgM or another laboratory-confirmed communicable disease

**Epidemiologically-linked measles (or rubella) case** – A suspect measles case that has not been confirmed by laboratory but that is geographically AND temporally related (with dates of rash onset occurring between 7 and 21 days apart) to a laboratory-confirmed case or (in the event of an outbreak) to another epidemiologically confirmed measles case.

**Discarded as non-measles/non-rubella** – A case that meets the clinical case definition for measles and discarded as non-measles/rubella case.

**Pending Classification** - Cases with blood specimen collected and pending laboratory results.

**Alert threshold** – Refers to the level of occurrence of disease that serves as an early warning for epidemics. An increase in the number of cases above the threshold level should trigger an investigation, epidemic preparedness and implement appropriate prevention and control measures.

**Epidemic threshold** – Refers to the level of occurrence of disease above which an urgent response is required. The threshold is specific to each disease and depends on the infectiousness, other determinants of transmission and local endemicity levels.