



Introduction

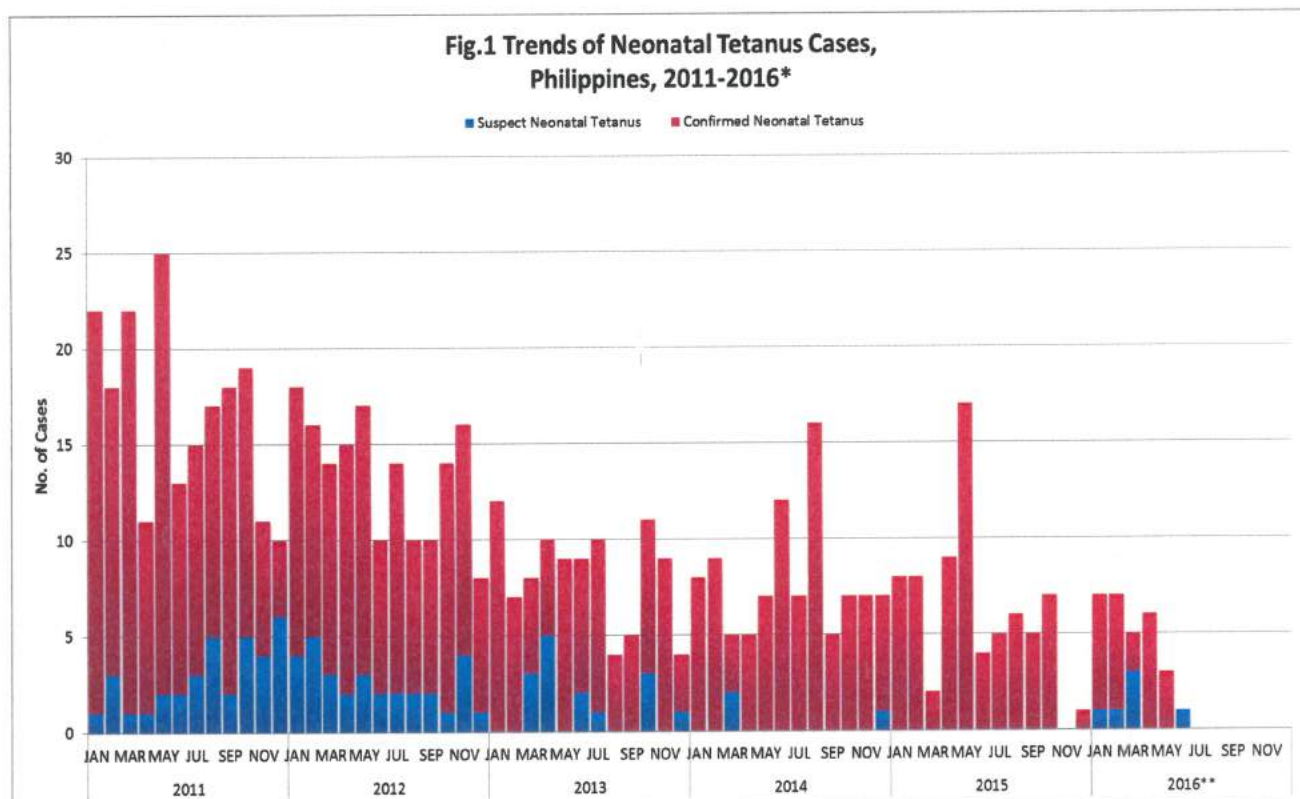
Neonatal Tetanus (NT) is an acute, often fatal disease characterized by generalized, increased rigidity and convulsive spasms of skeletal muscles caused by the spore-forming bacterium *Clostridium tetani*. The disease is not transmitted from person to person. It is acquired when dirt-containing tetanus spores enter open wounds (injections, cutting the umbilical cord) or breaks in the skin. The incubation period is 3 to 21 days, with an average of 6 days. It is particularly common in rural areas where deliveries are done at home without adequate sterile procedures. Unclean cord care practices during delivery for neonates and lack of tetanus antibody protection from inadequately immunized mothers are the risk factors for the disease.

Neonatal Tetanus Elimination in the Philippines

NT elimination is defined as the achievement of <1 NT case per 1,000 live births (LB) in every province/city of every country. This is operationally defined by an algorithm assessing four major indicators: reported incidence of NT, the reliability of NT surveillance (quality NT surveillance indicators), the proportion of women with at least two doses of tetanus toxoid (TT2+) and the estimated clean delivery rate.

In 2015, 16 out of the 17 regions in the Philippines has been NT eliminated. This was after an external validation of the UNICEF and WHO in February 2015 was conducted in partnership with the Department of Health. Efforts are now being made for ARMM to meet WHO requirements and be NT free as well.

Trend in the Philippines



*2016 = as of June 25, 2016



Since 2011, there has been a gradual but continuous decrease of reported NT cases in the Philippines (Figure 1). From January 1 to June 25, 2016 alone, there are **29** reported NT cases nationwide. This is **39.58%** lower compared to the same time period last year (**48 cases**). Of these cases, 19 died (CFR=65.52).

In 2013, a Neonatal Tetanus case definition and classification was introduced. Suspected NT cases were discarded, thereby retaining only Clinically-Confirmed classification of NT cases. These may be observed in Figure 1 which depicts a decrease in the reported suspect NT cases from 2013. At present, of the 29 reported NT cases, 23 were Clinically-Confirmed while the remaining 6 cases are still for validation.

Geographic Distribution

Reported Neonatal Tetanus cases were variably distributed among regions, with ARMM reporting the most number of cases (Figure 2&3). Furthermore, NT rates in provinces with reported cases remain at the target rate of <1/1,000 livebirths (Figure 2).

Profile of Cases

Most of the reported NT cases are male (52%). Majority of the cases are from the 3 to 7 days old age group (Figure. 4).

In terms of delivery practices, most cases were delivered at home (97%) and majority were attended by a hilot (83%) with blade as the most common cord cutting tool used (34%). Umbilical stump of majority of the NT cases were treated with alcohol (38%). (Table 1)

Fig. 2 Clinically Confirmed NT Cases and Incidence Rate by Province, Philippines MW 25 2016 (n=23)

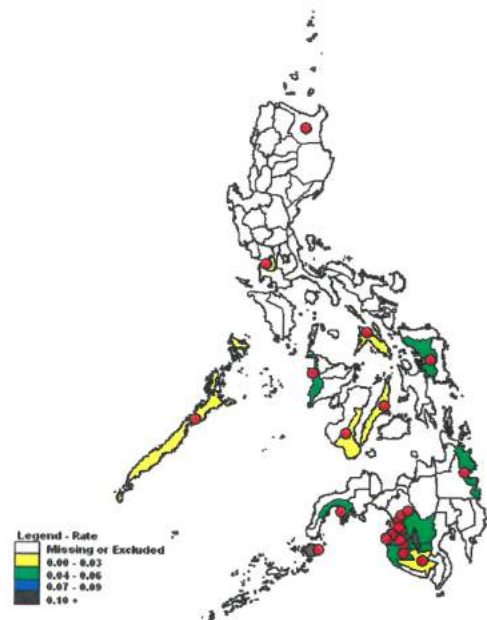
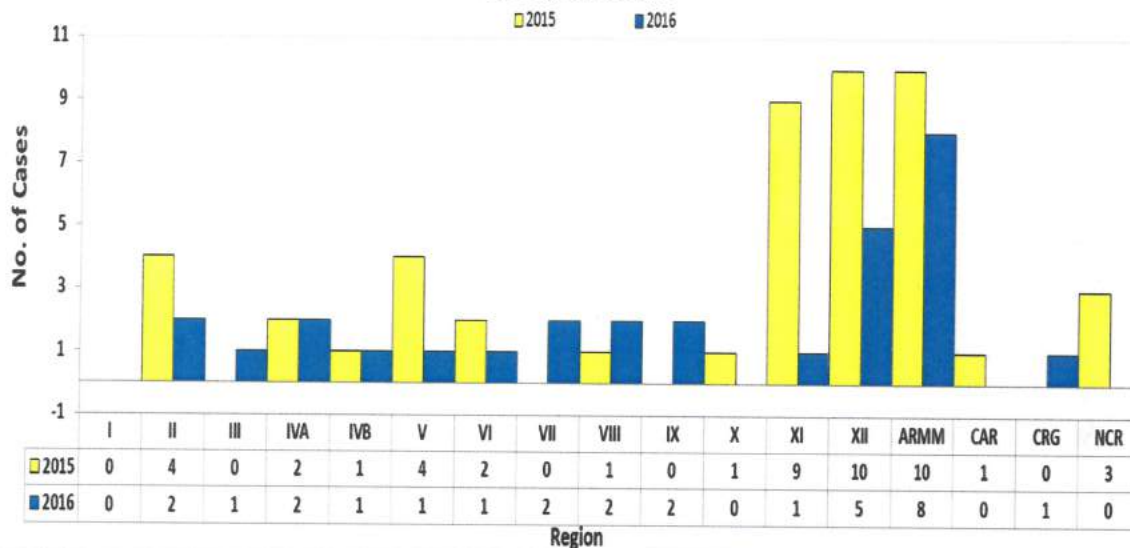


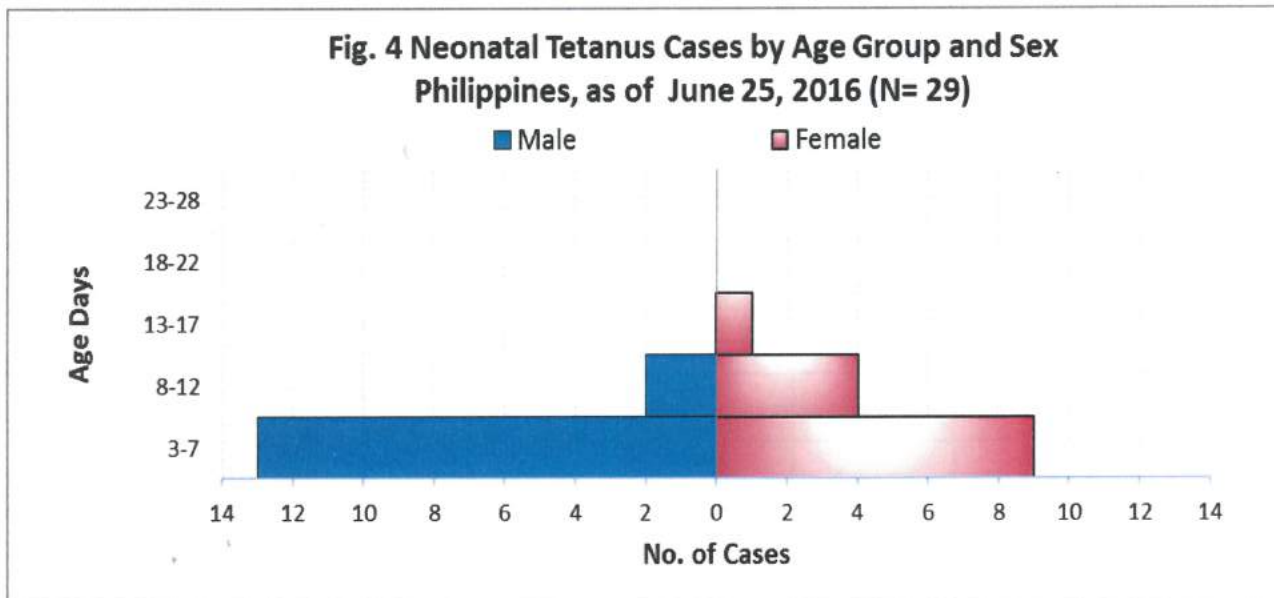
Fig. 3 Neonatal Tetanus Cases by Region, Philippines (N=29)
 MW 25, 2015 vs. 2016





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**Table 1. Delivery Practices of Neonatal Tetanus Cases ,
 Philippines, as of June 25, 2016 (N=29)**

Delivery Practices	No. of Cases	Percentage
Place of Delivery		
Home	28	97%
Unknown	1	3%
Delivery Attendant		
Hilot	24	83%
Self	2	7%
Unknown	2	7%
Neighbor	1	3%
Cord Cut Tool Used		
Blade	10	34%
Scissors	8	28%
Bamboo	7	24%
Unknown	2	7%
Coconut Leaf	1	3%
Thread	1	3%
Stump Treatment Used		
Alcohol	11	38%
None	2	7%
Alcohol, Povidone Iodine	1	3%
Povidone Iodine	1	3%
Amoxycillin Capsule	1	3%
Cloth, no substance	1	3%
Oil	1	3%
Water	1	3%
Unknown	10	34%



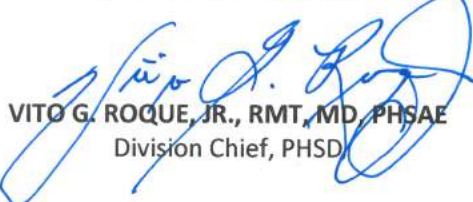
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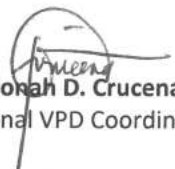
**Table 2. Neonatal Tetanus Cases and Fatality Rate by Region
 Philippines, as of January 1 – June 25, 2016**

Region	Neonatal Tetanus Cases						
	Cases			Deaths			
	2016	2015	% Change	2016	CFR	2015	CFR
I	0	0	0.00	0	0.00	0	0.00
II	2	4	-50.00	0	0.00	3	75.00
III	1	0	0.00	0	0.00	0	0.00
IVA	2	2	0.00	1	50.00	1	50.00
IVB	1	1	0.00	1	100.00	0	0.00
V	1	4	-75.00	1	100.00	2	50.00
VI	1	2	-50.00	1	100.00	2	100.00
VII	2	0	0.00	2	100.00	0	0.00
VIII	2	1	100.00	2	100.00	1	100.00
IX	2	0	0.00	2	100.00	0	0.00
X	0	1	-100.00	0	0.00	1	100.00
XI	1	9	-88.89	0	0.00	5	55.56
XII	5	10	-50.00	4	80.00	8	80.00
ARMM	8	10	-20.00	4	50.00	5	50.00
CAR	0	1	-100.00	0	0.00	0	0.00
CRG	1	0	0.00	1	100.00	0	0.00
NCR	0	3	-100.00	0	0.00	3	100.00
PHL	29	48	-39.58	19	65.52	31	64.58

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