



Morbidity Week 14 : January 1 - April 9, 2016

Epidemiology Bureau  
Public Health Surveillance Division

### Introduction

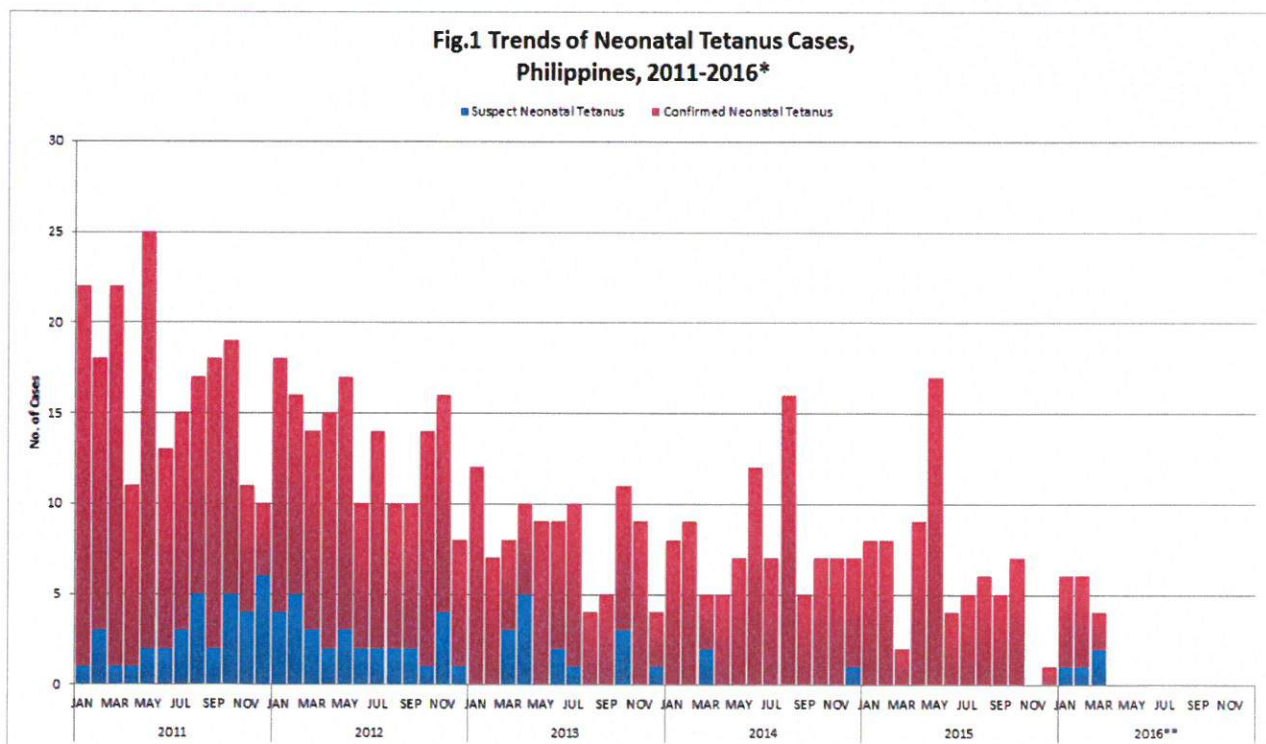
Neonatal Tetanus (NT) is an acute, often fatal disease characterized by generalized, increased rigidity and convulsive spasms of skeletal muscles caused by the spore-forming bacterium *Clostridium tetani*. The disease is not transmitted from person to person. It is acquired when dirt-containing tetanus 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 reached 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 which was conducted in partnership with the Department of Health. Efforts are now being made for ARMM to meet WHO requirements and be NT eliminated as well.

### Trend in the Philippines



\*2016 = as of April 9, 2016



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Since 2011, there has been a gradual but continuous decrease of reported NT cases in the Philippines (Figure 1). From January 1 to April 9, 2016 alone, there are **16** reported NT cases nationwide. This is **23.81%** lower compared to the same time period last year (**21** cases). Of these cases, 11 died (CFR=68.75).

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 16 reported NT cases, 12 were Clinically-Confirmed while the remaining 4 cases are still for validation.

### Geographic Distribution

Reported Neonatal Tetanus cases were variably distributed among regions, with Region 12 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

Sex of reported NT cases are equally distributed among males (50%) and females (50%). Majority of the cases are from the 3 to 7 days old age group (Figure. 4).

In terms of delivery practices, all cases were delivered at home (100%) and majority were attended by a hilot (75%) with scissors as the most common cord cutting tool used (44%). Umbilical stump of majority of the NT cases were treated with alcohol (44%). (Table 1)

Fig. 2 Clinically Confirmed NT Cases and Incidence Rate by Province, Philippines MW 14 2016 (n=12)

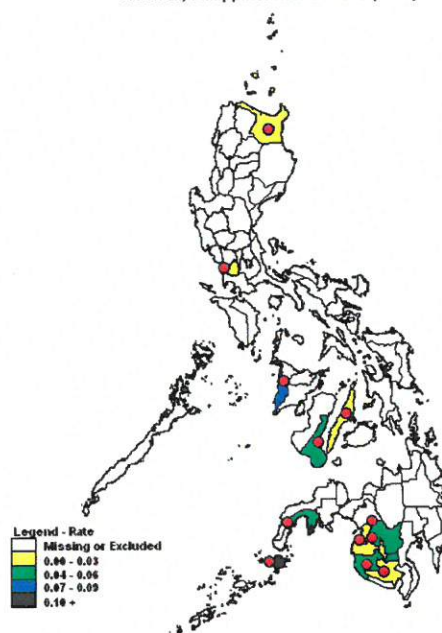
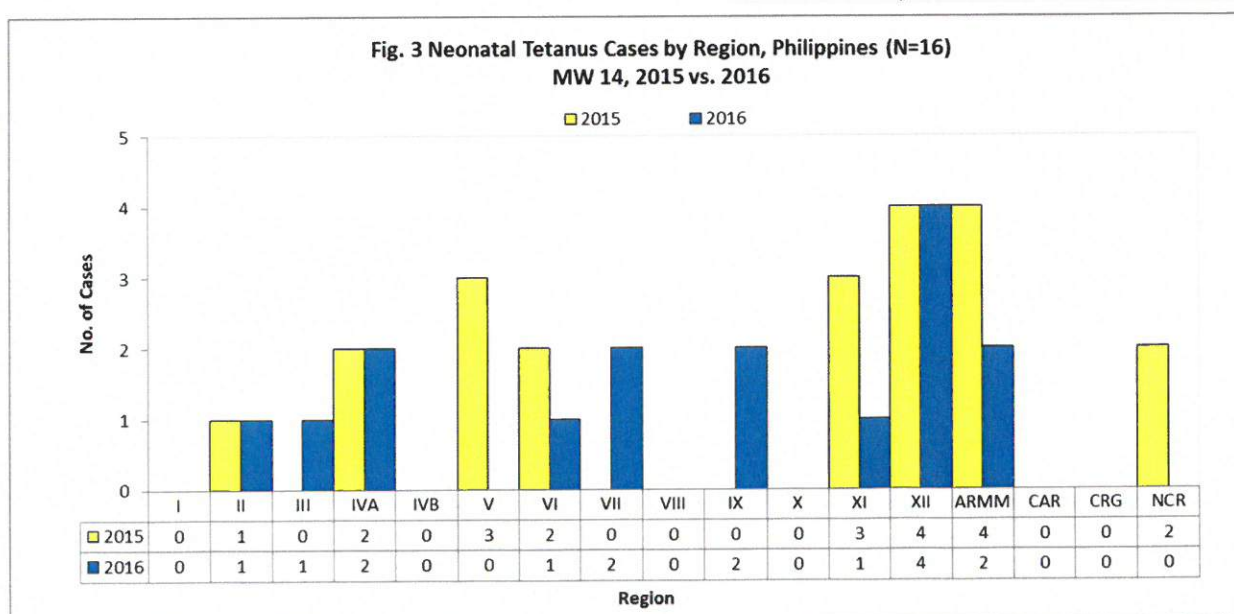


Fig. 3 Neonatal Tetanus Cases by Region, Philippines (N=16)  
MW 14, 2015 vs. 2016

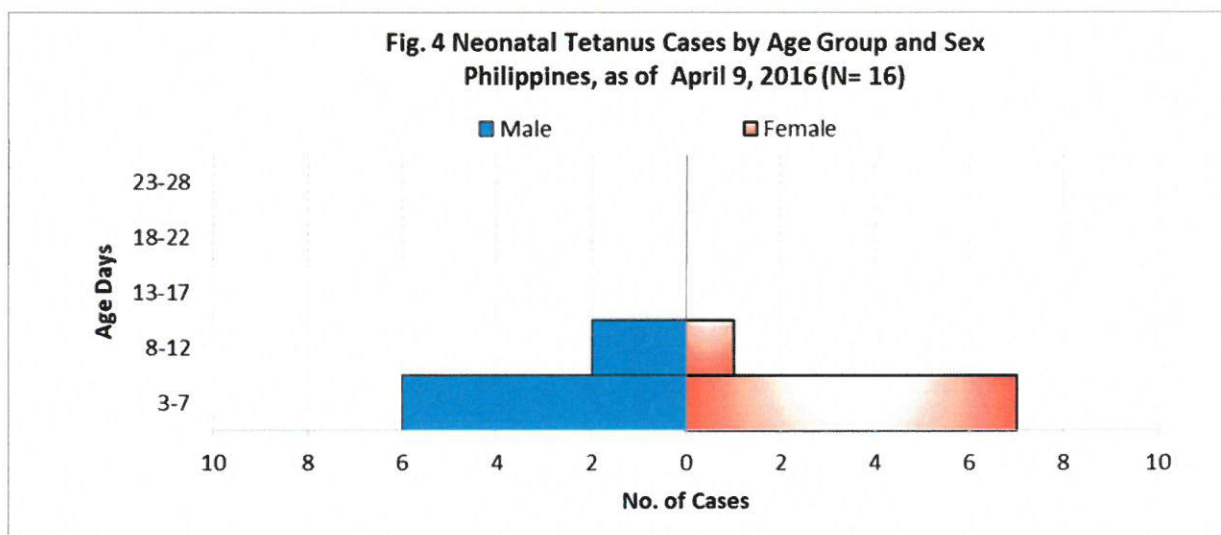






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**Table 1. Delivery Practices of Neonatal Tetanus Cases , Philippines**  
 as of April 9, 2016 (N=16)

Delivery Practices	No. of Cases	Percentage
<b>Place of Delivery</b>		
Home	16	100%
<b>Delivery Attendant</b>		
Hilot	12	75%
Self	2	13%
Neighbor	1	6%
Unknown	1	6%
<b>Cord Cut Tool Used</b>		
Scissors	7	44%
Blade	5	31%
Bamboo	3	19%
Thread	1	6%
<b>Stump Treatment Used</b>		
Alcohol	7	44%
Alcohol, Povidone Iodine	1	6%
Povidone Iodine	1	6%
Oil	1	6%
Water	1	6%
Cloth, no substance	1	6%
None	1	6%
Unknown	3	19%



## Neonatal Tetanus Cases


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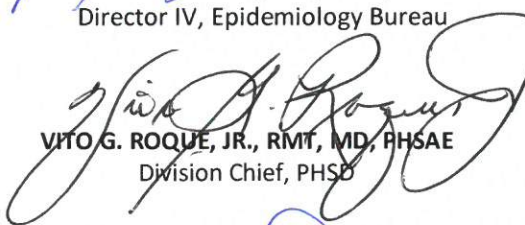
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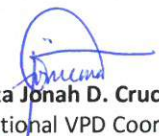
**Table 2. Neonatal Tetanus Cases and Fatality Rate by Region  
Philippines, as of January 1 – April 9, 2016**


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	1	1	0.00	0	0.00	1	100.00
III	1	0	-	0	0.00	0	0.00
IVA	2	2	0.00	1	50.00	1	50.00
IVB	0	0	0.00	0	0.00	0	0.00
V	0	3	-100.00	0	0.00	2	66.67
VI	1	2	-50.00	1	100.00	2	100.00
VII	2	0	-	2	100.00	0	0.00
VIII	0	0	0.00	0	0.00	0	0.00
IX	2	0	-	2	100.00	0	0.00
X	0	0	0.00	0	0.00	0	0.00
XI	1	3	-66.67	0	0.00	1	33.33
XII	4	4	0.00	4	100.00	3	75.00
ARMM	2	4	-50.00	1	50.00	2	50.00
CAR	0	0	0.00	0	0.00	0	0.00
CRG	0	0	0.00	0	0.00	0	0.00
NCR	0	2	-100.00	0	0.00	2	100.00
PHL	16	21	-23.81	11	68.75	14	66.67

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