



Epidemiology Bureau

Public Health Surveillance Division

**Trend in the Philippines**

Since 2013, there has been a gradual but continuous decrease of reported NT cases in the Philippines (Figure 1). From January 1 to August 5, 2017 alone, there are **39** clinically confirmed NT cases nationwide. This is **35.00%** lower compared to the same time period last year (**60 cases**).

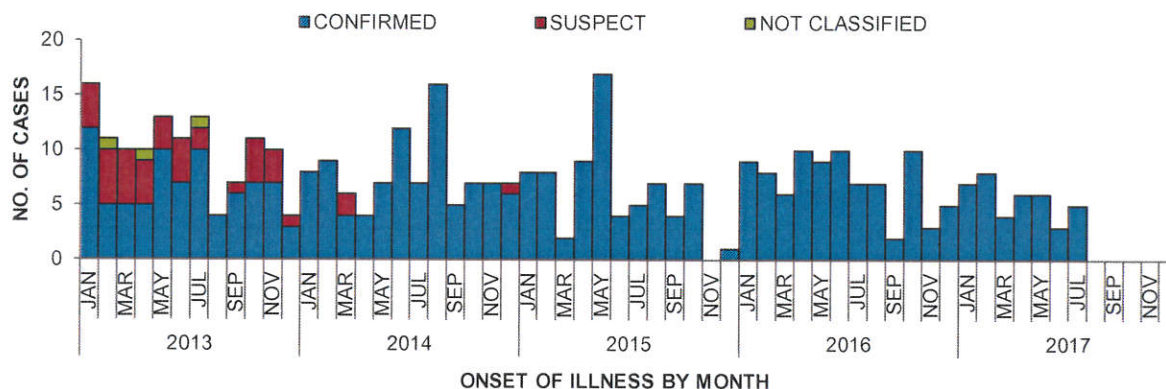
**Geographic Distribution**

Clinically confirmed Neonatal Tetanus cases were variably distributed among regions, with ARMM reporting the most number of cases (Figures 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**

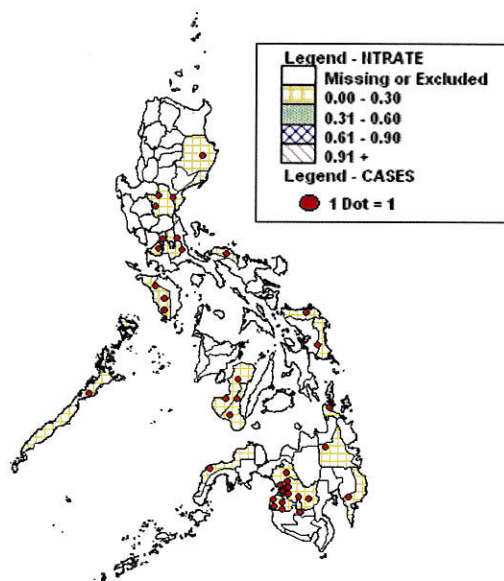
Twenty four cases (61.54%) were male. Majority of the cases are from the 3 to 7 days old age group (31, 79.49%) (Figure 4). Larger part (20, 51.28%) of the immunization status of the mother of clinically confirmed NT cases have **zero (0) dose of Tetanus Toxoid vaccine** (Figure 5).

**Fig. 1 Trends of Neonatal Tetanus Cases, Philippines, 2013-2017\***

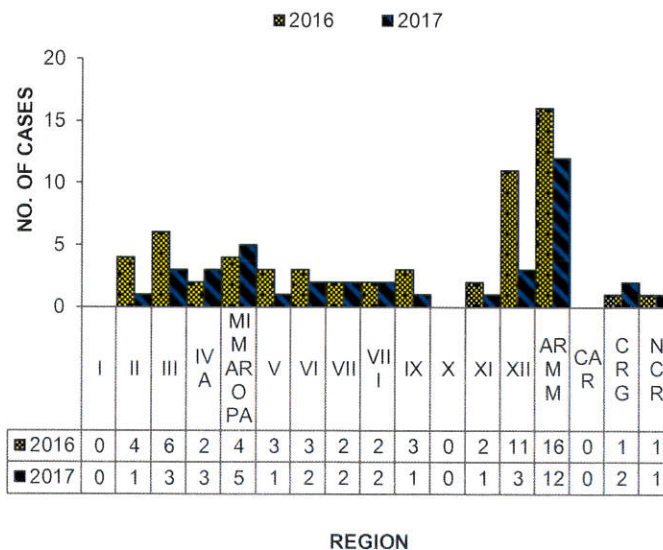


\*data as of August 5, 2017

**Fig. 2 Clinically Confirmed NT Cases and Incidence Rate by Province, Philippines, as of August 5, 2017 (N=39)**



**Fig. 3 Clinically Confirmed Neonatal Tetanus Cases by Region, 2016 VS 2017, Philippines, as of August 5, 2017 (N=39)**

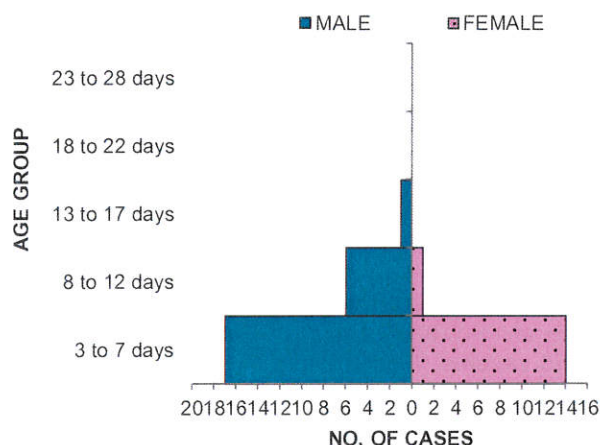




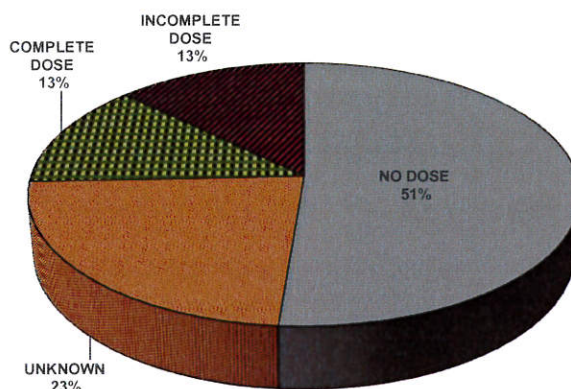
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**Fig. 4 Clinically Confirmed Neonatal Tetanus Cases by Age Group and Sex, Philippines, as of August 5, 2017 (N=39)**



**Fig. 5 Immunization Status of Mother of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of August 5, 2017 (N=39)**

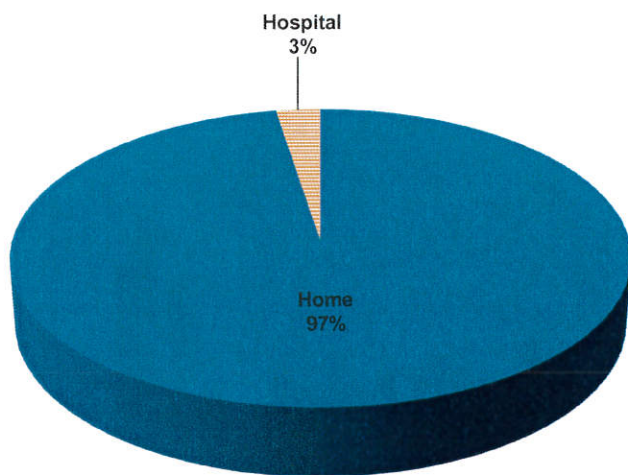


#### Delivery Practices of Clinically Confirmed Neonatal Tetanus Cases

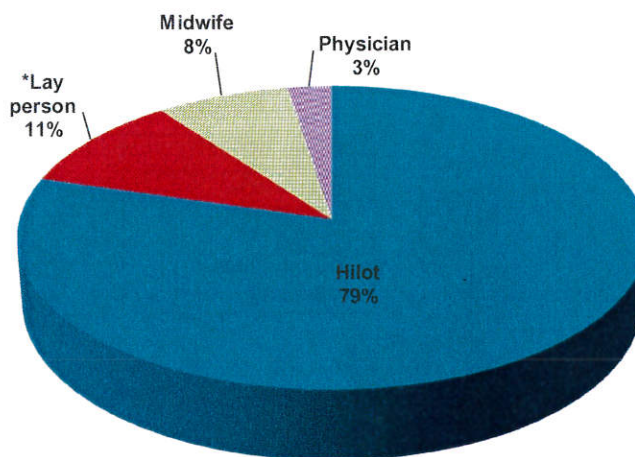
In terms of delivery practices, 1 NT case was delivered in a hospital (3%) while the rest were delivered at home (97%). Majority were attended by a hilot (31, 79%). Most common cord cutting tools used were blade and bamboo (13 each, 33% respectively). Umbilical stump treatment of majority of the NT cases was alcohol (17, 44%). See Figures 6-9.

LEGEND : \* Lay Person: husband, mother and mother in law

**Fig. 6 Place of Delivery of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of August 5, 2017 (N=39)**



**Fig. 7 Delivery Attendant of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of August 5, 2017 (N=39)**







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Fig. 8 Cord Cutting Tool Used among Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of August 5, 2017 (N=39)

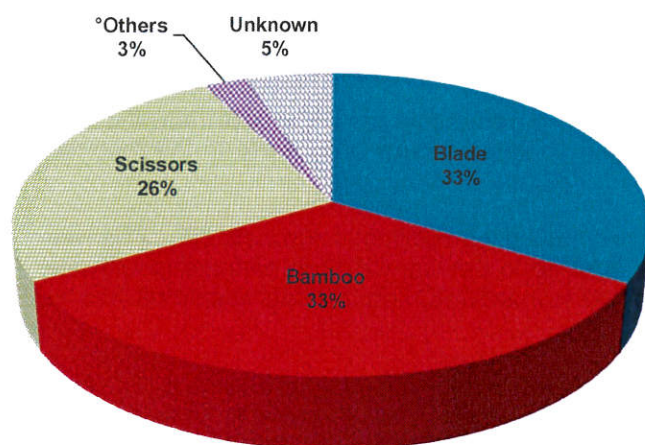
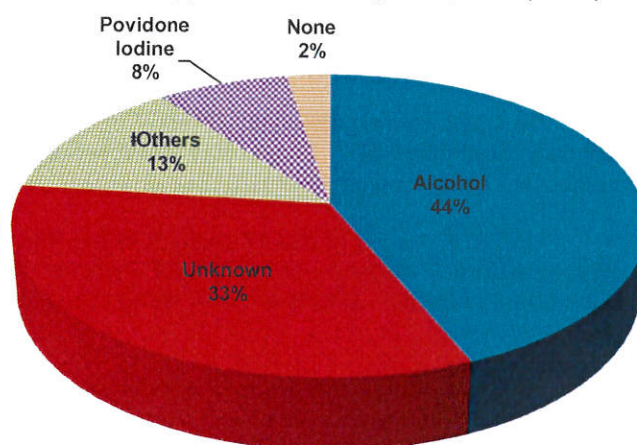


Fig. 9 Stump Treatment Used of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of August 5, 2017 (N=39)



LEGEND : °Others: palm frond  
 †Others: ash, hot water, merthiolate and powder

Table 1. Clinically Confirmed Neonatal Tetanus Cases and Fatality Rate by Region, Philippines, as of August 5, 2017 (N=39)

Region	Clinically Confirmed Neonatal Tetanus Cases						
	Cases			Deaths			
	2017	2016	% Change	2017	CFR	2016	CFR
I	0	0	→ 0.00	0	0.00	0	-
II	1	4	↓ -75.00	1	100.00	3	75.00
III	3	6	↓ -50.00	2	66.67	3	-
IVA	3	2	↑ 50.00	1	33.33	2	100.00
MIMAROPA	5	4	↑ 25.00	2	40.00	3	75.00
V	1	3	↓ -66.67	1	100.00	2	66.67
VI	2	3	↓ -33.33	1	50.00	3	100.00
VII	2	2	→ 0.00	2	100.00	2	100.00
VIII	2	2	→ 0.00	2	100.00	2	100.00
IX	1	3	↓ -66.67	1	100.00	2	-
X	0	0	→ 0.00	0	-	0	0.00
XI	1	2	↓ -50.00	0	0.00	2	100.00
XII	3	11	↓ -72.73	3	100.00	8	72.73
ARMM	12	16	↓ -25.00	8	66.67	7	43.75
CAR	0	0	→ 0.00	0	-	0	0.00
CRG	2	1	↑ 100.00	1	50.00	1	-
NCR	1	1	→ 0.00	1	100.00	1	100.00
PHL	39	60	↓ -35.00	26	66.67	41	68.33





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**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 2013, a new Neonatal Tetanus case definition and classification was introduced retaining only Clinically Confirmed NT. These may be observed in Figure 1 which depicts a decrease in the reported suspect NT cases overtime from 2013.

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

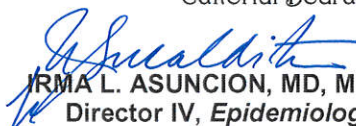
In 2016, 4 high risk areas in ARMM were identified. Tetanus diphtheria-oral polio vaccine (Td-OPV) supplemental immunization activity (SIA) was one of the strategies where in all women from 15 to 40 years old irrespective of their prior TT immunization status and children less than 5 years old were target for 2 doses of OPV irrespective of their previous immunization status. Round 2 of SIA was completed and agreements to improve maternal and child programs was made.

**Standard Case Definition**

• **Clinically Confirmed Neonatal Tetanus**

- Any neonate ( ≤ 28 days of life) that sucks and cries normally during the first 2 days of life, and becomes ill between 3 to 28 days of age and develops both an inability to suck and diffuse muscle rigidity (stiffness) and spasms (jerking of the muscles), which may include trismus, clenched fists or feet, continuously pursed lips, and/or curved back (opisthotonus);  
**OR**
- A neonate between 3 to 28 days of life, diagnosed as a case of tetanus by a physician.

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**ANNEX A. Reported Neonatal Tetanus Cases by Barangay**

REPORTED NEONATAL TETANUS CASES PHILIPPINES, JANUARY 1 - AUGUST 5, 2017 (N=39)						
REGION	PROVINCE	MUNCITY	BARANGAY	ALIVE	DIED	TOTAL
02	ISABELA	ANGADANAN	MACANIAO	0	1	1
03	AURORA	CASIGURAN	COZO	0	1	1
	NUEVA ECIJA	JAEN	SAN JOSE	0	1	1
		PANTABANGAN	VILLARICA	1	0	1
04A	CAVITE	KAWIT	GAHAK	1	0	1
	LAGUNA	CALAUAN	LIMAO	0	1	1
	RIZAL	RODRIGUEZ	SAN RAFAEL	1	0	1
04B	OCCIDENTAL MINDORO	ABRA DE ILOG	UDALO (CAMURONG)	0	1	1
		CALINTAAN	NEW DAGUPAN	1	0	1
		MAGSAYSAY	GAPASAN	0	1	1
			PURNAGA	1	0	1
	PALAWAN	BALABAC	BANCALAN	1	0	1
05	CAMARINES NORTE	MERCEDES	COLASI	0	1	1
06	NEGROS OCCIDENTAL	CAUAYAN	UNSPECIFIED	0	1	1
		SAN CARLOS CITY	CODCOD	1	0	1
07	NEGROS ORIENTAL	SIATON	CASALA-AN	0	1	1
		TAYASAN	BAGO	0	1	1
08	EASTERN SAMAR	JIPAPAD	SAN ROQUE	0	1	1
	NORTHERN SAMAR	VICTORIA	LIBERTAD	0	1	1
09	ZAMBOANGA DEL NORTE	SIAYAN	MOYO	0	1	1
11	DAVAO ORIENTAL	GOVERNOR GENEROSO	TIBANBAN	1	0	1
12	NORTH COTABATO	BANISILAN	SOLAMA	0	1	1
		KABACAN	BANNAWAG	0	1	1
		PIKIT	FORT PIKIT	0	1	1
		MARAWI CITY	CALOCAN EAST	1	0	1
ARMM	MAGUINDANAO	AMPATUAN	DICALONGAN (POB.)	1	0	1
		DATU ANGGAL MIDTIMBANG	NUNANGAN	0	1	1
			TUGAL	1	0	1
		DATU ODIN SINSUAT	DALICAN POBLACION	0	2	2
			DINAIG PROPER	1	0	1
		DATU PIANG	GANTA	0	1	1
		PAGALUNGAN	KILANGAN	0	2	2
		PARANG	BONGO ISLAND (LITAYEN)	0	1	1
CARAGA	SOUTH UPI	ROMANGAOB (POB.)		0	1	1
CARAGA	AGUSAN DEL SUR	SAN LUIS	SAN PEDRO	0	1	1
	SURIGAO DEL NORTE	CLAVER	URBIZTONDO	1	0	1
NCR	METRO MANILA	LAS PIÑAS CITY	B. F. INTERNATIONAL VILLAGE	0	1	1
PHILIPPINES				13	26	39