



January 1 – December 31, 2016

Epidemiology Bureau
Public Health Surveillance Division

Trend in the Philippines

Since 2013, there has been a gradual increase of reported NT cases in the Philippines (Figure 1). From January 1 to December 31, 2016, there are **86** clinically confirmed NT cases nationwide. This is **19.44%** lower compared to the same time period last year (**72 cases**).

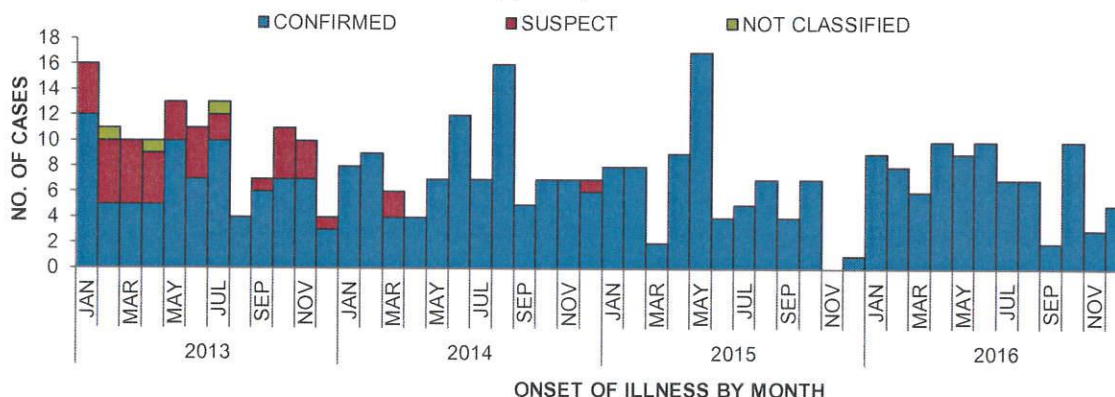
Geographic Distribution

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

Forty four cases (51%) were male. Majority of the cases are from the 3 to 7 days old age group (79%) (Figure 4). Larger part (66%) 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, 2013-2016*



*data as of December 31, 2016

Fig. 2 Clinically Confirmed NT Cases and Incidence Rate by Province, Philippines, as of Dec. 31, 2016 (N=86)

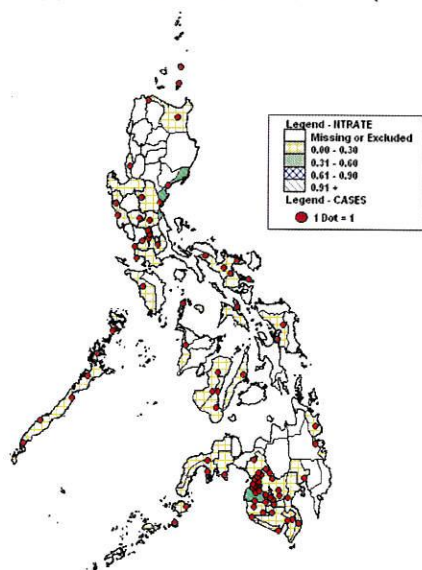
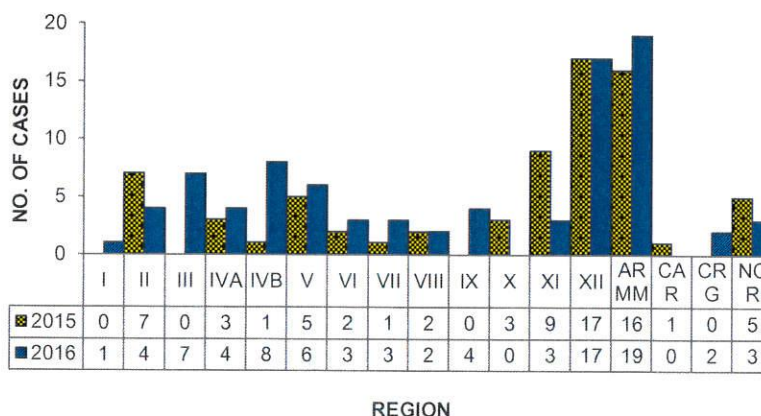


Fig. 3 Clinically Confirmed Neonatal Tetanus Cases by Region, 2015 VS 2016, Philippines, as of Dec. 31, 2016 (N=86)





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Fig. 4 Clinically Confirmed Neonatal Tetanus Cases by Age Group and Sex, Philippines, as of Dec. 31, 2016 (N=86)

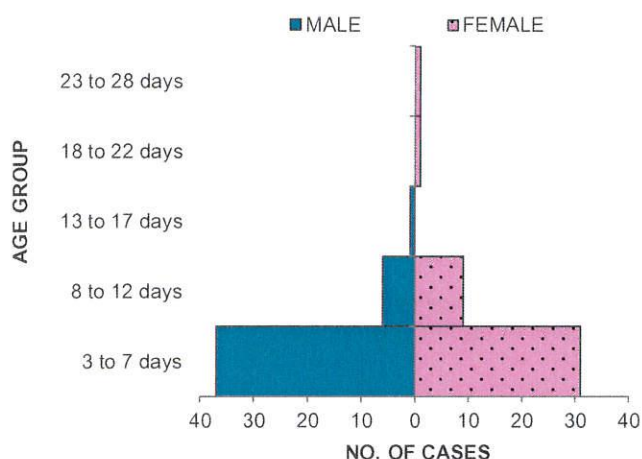
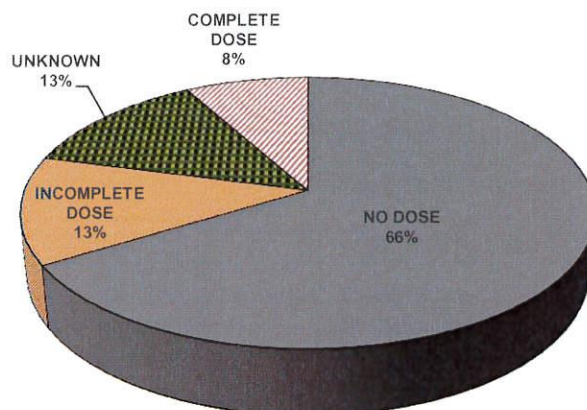


Fig. 5 Immunization Status of Mother of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of Dec. 31, 2016 (N=86)



Delivery Practices of Clinically Confirmed Neonatal Tetanus Cases

In terms of delivery practices, 1 NT case each was delivered in a hospital, clinic and 1 not known (3%) while the rest were delivered at home (97%). Majority were attended by a hilot (76%). Most common cord cutting tools used was scissors (31%). Umbilical stump treatment of majority of the NT cases was alcohol (44%). See Figures 6-9.

Fig. 6 Place of Delivery of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of Dec. 31, 2016 (N=86)

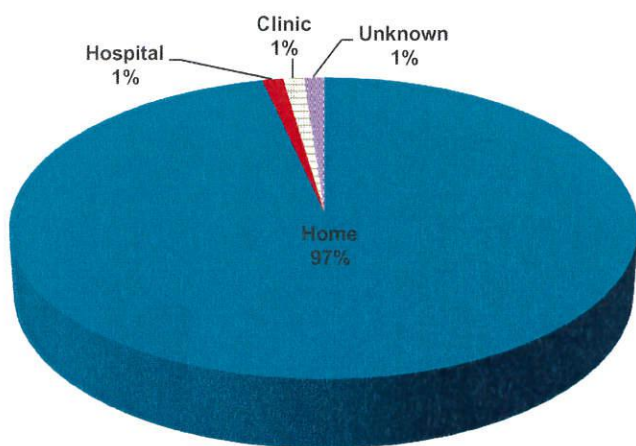
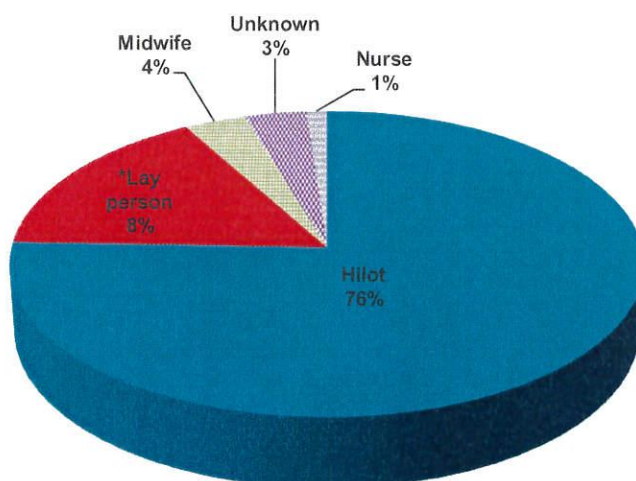


Fig. 7 Delivery Attendant of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of Dec. 31, 2016 (N=86)





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Fig. 8 Cord Cutting Tool Used among Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of Dec. 31, 2016 (N=86)

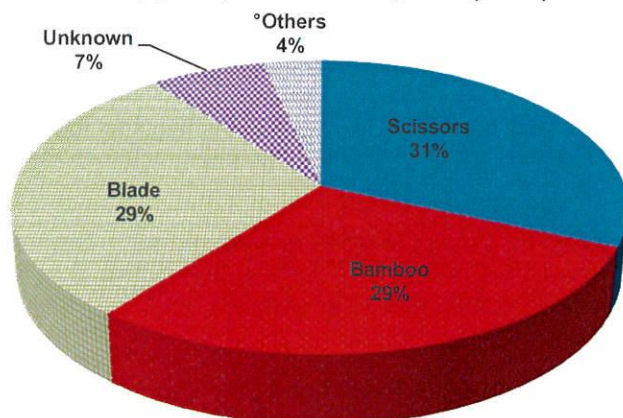
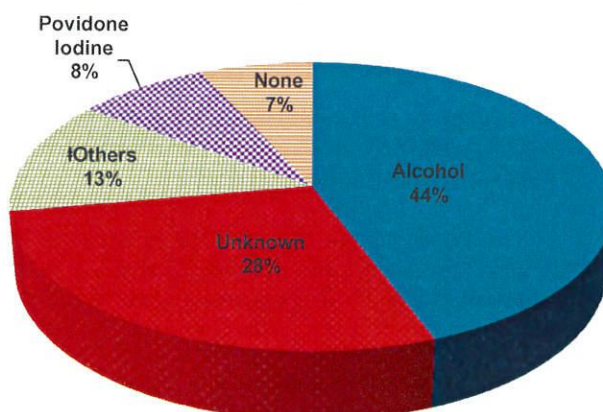


Fig. 9 Stump Treatment Used of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of Dec. 31, 2016 (N=86)



* Lay Person: father, grandmother, husband, mother, neighbor, none & self

°Others: coconut leaf, thread & uway

! Others: amoxycillin capsule, charcoal, cloth, coconut meat or copra, coconut oil, hydrogen peroxide, oil, stump with tie and water

Table 1. Clinically Confirmed Neonatal Tetanus Cases and Fatality Rate by Region, Philippines, as of Dec. 31, 2016 (N=86)

Region	Clinically Confirmed Neonatal Tetanus Cases						
	Cases			Deaths			
	2016	2015	% Change	2016	CFR	2015	CFR
I	1	0	→ 0.00	1	100.00	0	-
II	4	7	↓ -42.86	3	75.00	4	57.14
III	7	0	→ 0.00	4	57.14	0	-
IVA	4	3	↑ 33.33	4	100.00	2	66.67
IVB	8	1	↑ 700.00	5	62.50	0	0.00
V	6	5	↑ 20.00	5	83.33	3	60.00
VI	3	2	↑ 50.00	3	100.00	2	100.00
VII	3	1	↑ 200.00	3	100.00	1	100.00
VIII	2	2	→ 0.00	2	100.00	1	50.00
IX	4	0	→ 0.00	3	75.00	0	-
X	0	3	↓ -100.00	0	-	2	66.67
XI	3	9	↓ -66.67	3	100.00	5	55.56
XII	17	17	→ 0.00	11	64.71	12	70.59
ARMM	19	16	↑ 18.75	8	42.11	10	62.50
CAR	0	1	↓ -100.00	0	-	0	0.00
CRG	2	0	→ 0.00	2	100.00	0	-
NCR	3	5	↓ -40.00	3	100.00	5	100.00
PHL	86	72	↑ 19.44	60	69.77	47	65.28



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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 (jerkings 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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Neonatal Tetanus Cases

Monthly Report

January 1 – December 31, 2016

Epidemiology Bureau
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ANNEX A. Reported Neonatal Tetanus Cases by Barangay

REPORTED NEONATAL TETANUS CASES PHILIPPINES, JANUARY 1 - DECEMBER 31, 2016 (N=86)							
REGION	PROVINCE	MUNCITY	BARANGAY	ALIVE	DIED	UNKNOWN	TOTAL
01	LA UNION	BAUANG	PUGO	0	1	0	1
02	CAGAYAN	ALLACAPAN	DAGUPAN	1	0	0	1
		LAL-LO	LOGAC	0	1	0	1
		LASAM	CABATACAN WEST	0	1	0	1
			SICALAO	0	1	0	1
03	AURORA	CASIGURAN	COZO	0	1	0	1
		DINGALAN	CABOG (MATAWE)	0	1	0	1
	BULACAN	SAN MIGUEL	BANTOG	0	1	0	1
	NUEVA ECIJA	LUPAO	SAN ISIDRO	1	0	0	1
	PAMPANGA	ANGELES CITY	PAMPANG	1	0	0	1
	ZAMBALES	IBA	SAN AGUSTIN	0	1	0	1
		SUBIC	MANGAN-VACA	1	0	0	1
04A	BATANGAS	TANAUAN CITY	SAMBAT	0	1	0	1
	CAVITE	BACOR	LIGAS I	0	1	0	1
		IMUS	ANABU I-G	0	1	0	1
	LAGUNA	SAN PEDRO	MAGSAYSAY	0	1	0	1
04B	OCCIDENTAL MINDORO	PALUAN	HARRISON	1	0	0	1
	PALAWAN	BATARAZA	RIO TUBA	0	1	0	1
			SUMBILING	0	1	0	1
		CORON	CABUGAO	0	1	0	1
		QUEZON	PINAGLABANAN	0	1	0	1
		RIZAL	BUNOG	1	0	0	1
		SOFRONIO ESPAÑOLA	PANITIAN	1	0	0	1
	ROMBLON	CAJIDIOCAN	SUGOD	0	1	0	1
05	ALBAY	CAMALIG	SUA	0	1	0	1
	CAMARINES SUR	GARCHITORENA	ASON (ANSON)	1	0	0	1
			SAN VICENTE	0	1	0	1
		MINALABAC	SAN ANTONIO	0	1	0	1
		TINAMBAC	BUYO	0	1	0	1
	MASBATE	AROROY	BALETE	0	1	0	1



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

REPORTED NEONATAL TETANUS CASES PHILIPPINES, JANUARY 1 - DECEMBER 31, 2016 (N=86)							
REGION	PROVINCE	MUNCITY	BARANGAY	ALIVE	DIED	UNKNOWN	TOTAL
06	ANTIQUE	SAN REMIGIO	NAGBANGI I (AMATONG)	0	1	0	1
	NEGROS OCCIDENTAL	BACOLOD CITY	BARANGAY 16 (POB.)	0	1	0	1
		LA CASTELLANA	CABAGNAAN	0	1	0	1
07	CEBU	DUMANJUG	TAPON	0	1	0	1
	NEGROS ORIENTAL	BAYAWAN CITY	KALUMBOYAN	0	1	0	1
		JIMALALUD	APANANGON	0	1	0	1
08	SAMAR	SANTA RITA	MAGSAYSAY	0	1	0	1
		TARANGNAN	SANTA CRUZ	0	1	0	1
09	BASILAN	ISABELA CITY	BALUNO	0	1	0	1
	ZAMBOANGA DEL NORTE	LABASON	GIL SANCHEZ	0	1	0	1
	ZAMBOANGA DEL SUR	ZAMBOANGA CITY	AYALA	1	0	0	1
	ZAMBOANGA SIBUGAY	UNSPECIFIED	UNSPECIFIED	0	1	0	1
11	DAVAO DEL NORTE	TALAINGOD	(blank)	0	1	0	1
	DAVAO DEL SUR	DAVAO CITY	BARANGAY 5-A (POB.)	0	1	0	1
			MA-A	0	1	0	1
12	COTABATO CITY	COTABATO CITY	KALANGANAN	0	1	0	1
			POBLACION VII	1	0	0	1
	NORTH COTABATO	ALAMADA	UNSPECIFIED	1	0	0	1
		BANISILAN	UNSPECIFIED	0	1	0	1
		CARMEN	LILIONGAN	1	0	0	1
			POBLACION	0	1	0	1
		PIKIT	GOKOTON (GOKOTAN)	0	1	0	1
			KABASALAN	0	1	0	1
		PRESIDENT ROXAS	UNSPECIFIED	0	1	0	1
	SARANGANI	MAASIM	AMSIPIT	0	1	0	1
		MAITUM	TUANADATU	1	0	0	1



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REGION	PROVINCE	MUNCITY	BARANGAY	ALIVE	DIED	UNKNOWN	TOTAL
12	SOUTH COTABATO	KORONADAL CITY	GENERAL PAULINO SANTOS (BO. 1)	0	1	0	1
		SURALLAH	UPPER SEPAKA	0	1	0	1
	SULTAN KUDARAT	ISULAN	KALAWAG II (POB.)	0	1	0	1
		LEBAK	BARURAO	0	0	1	1
		LUTAYAN	MAINDANG	0	1	0	1
			TAMNAG (POB.)	1	0	0	1
			ARMM	LANAO DEL SUR	CALANOGAS	MIMBALAWAG	0
MALABANG	PIALOT	0			1	0	1
MAGUINDANAO	BARIRA	UNSPECIFIED		1	0	0	1
	BULUAN	POBLACION		1	0	0	1
		POPOL		1	0	0	1
		DATU ODIN SINSUAT		DALICAN POBLACION	1	0	0
	SEMBA			0	1	0	1
	TENONGGOS			1	0	0	1
	UNSPECIFIED			0	0	1	1
	DATU PAGLAS	POBLACION		1	0	0	1
	NORTH UPI	UNSPECIFIED		1	0	0	1
	NORTHERN KABUNTALAN	UNSPECIFIED		0	1	0	1
	PARANG	UNSPECIFIED		0	1	0	1
	SULTAN KUDARAT	ALAMADA		0	1	0	1
		UNGAP		0	1	0	1
	SULTAN MASTURA	SIMUAY/SEASHORE		0	1	0	1
	TALITAY	KUDEN		0	1	0	1
SULU	INDANAN	BUANZA		1	0	0	1
	OLD PANAMAO	ASIN		1	0	0	1
CARAGA	SURIGAO DEL SUR	CARRASCAL	ADLAY	0	1	0	1
		TAGO	CARAS-AN	0	1	0	1
NCR	METRO MANILA	LAS PIÑAS CITY	UNSPECIFIED	0	1	0	1
		MALABON CITY	CATMON	0	1	0	1
		QUEZON CITY	PASONG TAMO	0	1	0	1
PHILIPPINES				23	60	3	86