



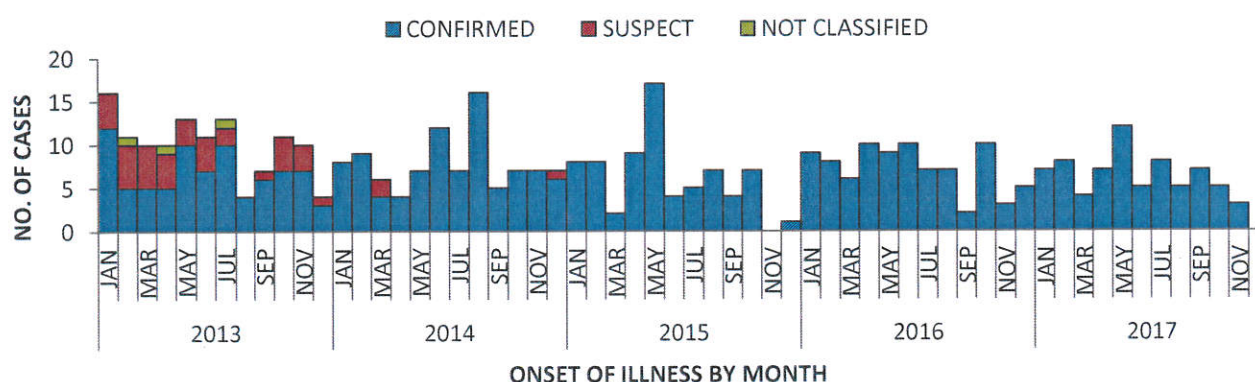
Trend in the Philippines

Since 2013, there has been a gradual but continuous decrease of reported NT cases in the Philippines (*Figure 1*). From January 1 to December 2, 2017 alone, there are **71** clinically confirmed NT cases nationwide. This is **12.35%** lower compared to the same time period last year (**81 cases**). Among the reported cases, there were 47 deaths with a CFR of 66.20% (*Table 1*).

Geographic Distribution

Clinically confirmed Neonatal Tetanus cases were variably distributed among regions, with ARMM (23 cases, 32.39%) reporting the most number of cases followed by Region XII (8 cases, 11.27%) and MIMAROPA (6 cases, 8.45%) (*Table 1*).

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



*data as of December 2, 2017

Table 1. Clinically Confirmed Neonatal Tetanus Cases by Region, 2016 VS 2017, Philippines, as of December 2, 2017 (N=71)

Region	Clinically Confirmed Neonatal Tetanus Cases						
	Cases			Deaths			
	2017	2016	% Change	2017	CFR %	2016	CFR %
I	2	1	↑ 100.00	2	100.00	1	100.00
II	3	4	↓ -25.00	3	100.00	3	75.00
III	4	7	↓ -42.86	3	75.00	4	57.14
IVA	4	4	⇒ 0.00	2	50.00	4	100.00
MIMAROPA	6	7	↓ -14.29	4	66.67	5	71.43
V	4	6	↓ -33.33	3	75.00	5	83.33
VI	3	3	⇒ 0.00	2	66.67	3	100.00
VII	3	3	⇒ 0.00	3	100.00	3	100.00
VIII	2	2	⇒ 0.00	2	100.00	2	100.00
IX	1	3	↓ -66.67	1	100.00	2	66.67
X	1	0	↑ 100.00	0	0.00	0	0.00
XI	1	2	↓ -50.00	0	0.00	2	100.00
XII	8	17	↓ -52.94	5	62.50	11	64.71
ARMM	23	17	↑ 35.29	12	52.17	7	41.18
CAR	0	0	⇒ 0.00	0	0.00	0	0.00
CARAGA	3	2	↑ 50.00	3	100.00	2	100.00
NCR	3	3	⇒ 0.00	2	66.67	3	100.00
PHILIPPINES	71	81	↓ -12.35	47	66.20	57	70.37



Profile of Cases

Forty-one cases (57.75%) were male. Majority of the cases are from the 3 to 7 days old age group (48, 67.61%) (Figure 2). Larger part (42, 59.15%) of the immunization status of the mother of clinically confirmed NT cases have **zero (0) dose of Tetanus Toxoid vaccine** (Figure 3). Notably, there is one reported case wherein the mother of a NT case (1.41%) received 7 doses of Tetanus Toxoid vaccine.

Fig. 2 Clinically Confirmed Neonatal Tetanus Cases by Age Group and Sex, Philippines, as of December 2, 2017 (N=71)

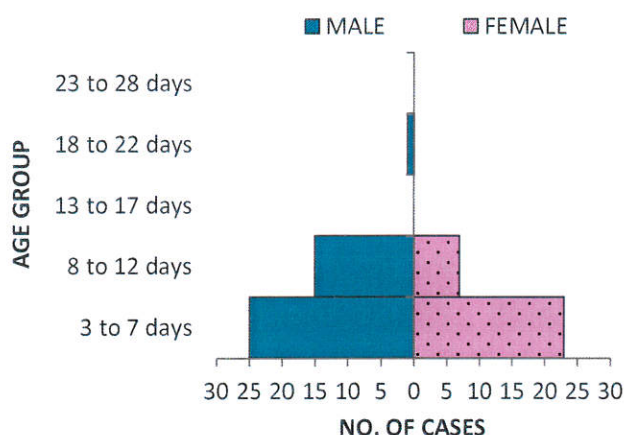
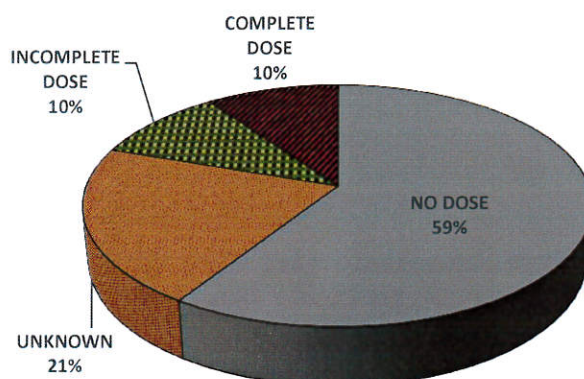


Fig. 3 Immunization Status of Mother of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of December 2, 2017 (N=71)



Delivery Practices of Clinically Confirmed Neonatal Tetanus Cases

In terms of delivery practices, 2 NT cases were delivered in a hospital (2.82%) while the rest were delivered at home (97.18%). Majority were attended by a hilot (51, 71.83%). Most common cord cutting tool used was bamboo (25, 35.21%). Umbilical stump treatment of majority of the NT cases was not known (29, 40.85%). See Figures 4-7.

LEGEND: * Lay Person: father, fellow cultural minority, grandmother, husband, mother, neighbor, self & sister in law

Fig. 4 Place of Delivery of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of December 2, 2017 (N=71)

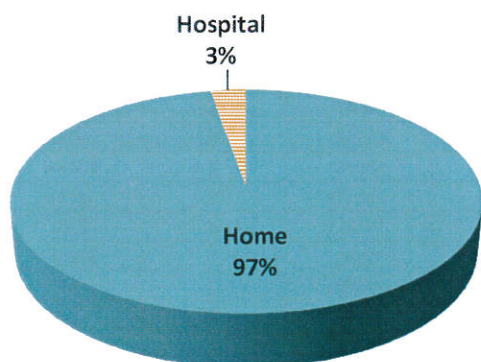


Fig. 5 Delivery Attendant of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of December 2, 2017 (N=71)

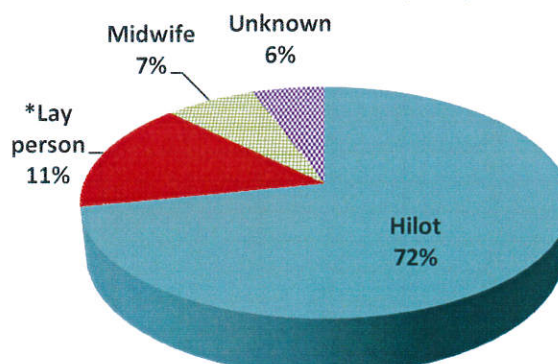




Fig. 6 Cord Cutting Tool Used among Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of December 2, 2017 (N=71)

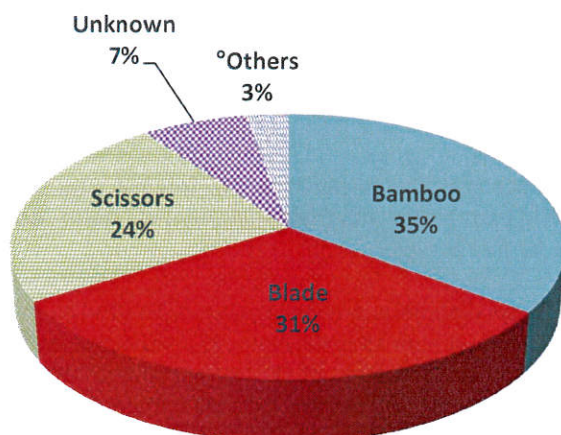
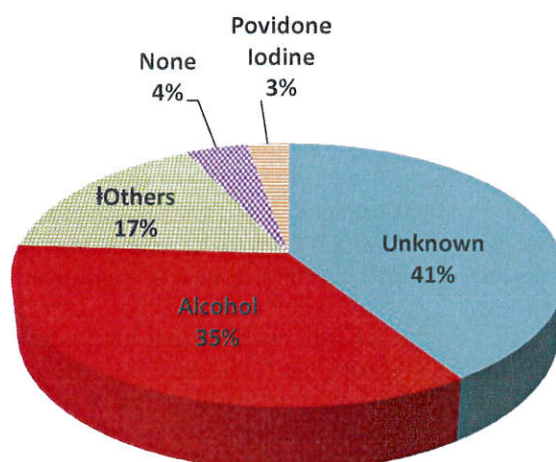


Fig. 7 Stump Treatment Used of Clinically Confirmed Neonatal Tetanus Cases, Philippines, as of December 2, 2017 (N=71)



LEGEND : °Others: palm frond

† Others: ash, baby oil, coconut oil, hot water, merthiolate and powder, kalawag and amoxicillin

Neonatal Tetanus Surveillance Indicator

NT rates in provinces and mun/cities with reported cases remain at the target rate of <1/1,000 livebirths (Table 1 & Annex A). Reporting rate was still below the target while Investigation Rate reached ≥80% target (Table 1).

Table 2. Neonatal Tetanus Surveillance Indicators by Region, Philippines, as of December 2, 2017 (N=71)

Region	Clinically Confirmed Neonatal Tetanus Cases		
	NT Rate (<1/1,000 LB)	TIMELINESS OF REPORTING	TIMELINESS OF INVESTIGATION
		REPORTING RATE (≥80%)	INVESTIGATION RATE (≥80%)
I	0.01	50.00	50.00
II	0.03	66.67	100.00
III	0.01	50.00	100.00
IVA	0.01	0.00	100.00
MIMAROPA	0.07	0.00	100.00
V	0.03	50.00	75.00
VI	0.01	33.33	100.00
VII	0.01	33.33	100.00
VIII	0.02	0.00	100.00
IX	0.01	100.00	100.00
X	0.01	0.00	100.00
XI	0.01	100.00	100.00
XII	0.06	25.00	100.00
ARMM	0.24	21.74	100.00
CAR	0.00	0.00	0.00
CARAGA	0.04	66.67	100.00
NCR	0.01	33.33	100.00
PHILIPPINES	0.03	29.58	97.18
LEGEND :	<1/1,000 LB	<80%	≥80%



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.

In 2017, 3 Rounds of Td-OPV SIA has been fulfilled. Maternal and Neonatal Tetanus Elimination (MNTE) External Validation was conducted and Philippines achieved the status as the 44th country to eliminate MNT last November. Validator's recommendations to sustain MNTE in the Philippines are as follows:

- Strengthening routine immunization of all children/adolescents to receive 3 primary doses and 3 booster doses of Tetanus Toxoid containing vaccine.
- Antenatal screening of pregnant women for tetanus vaccination (at least >80% vaccinated) to ensure protection at birth.
- Increase access to skilled attendant at birth and clean delivery/cords care practices.
- Strong Tetanus surveillance (including case investigation and response) and annual review of data to identify Local Government Health Unit at risk of re-emergence on MNT and needing corrective action.

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 Rate

REGION	PROVINCE	MUNCITY	DIED	CASES	NTRATE
I	LA UNION	BANGAR	1	1	0.07
	PANGASINAN	SAN CARLOS CITY	1	1	0.01
II	CAGAYAN	ALLACAPAN	1	1	0.08
	ISABELA	TUAO	1	1	0.04
III	AURORA	ANGADANAN	1	1	0.06
	NUEVA ECIJA	CASIGURAN	1	1	0.10
		JAEN	1	1	0.04
	ZAMBALES	PANTABANGAN	0	1	0.09
IVA	CAVITE	SAN NARCISO	1	1	0.09
	LAGUNA	KAWIT	0	1	0.03
	RIZAL	CALAUAN	1	1	0.03
		ANTIPOLO CITY	1	1	0.00
MIMAROPA	OCCIDENTAL MINDORO	RODRIGUEZ	0	1	0.01
		ABRA DE ILOG	1	1	0.08
	PALAWAN	MAGSAYSAY	2	3	0.21
		BALABAC	0	1	0.06
V	CAMARINES NORTE	BROOKE'S POINT	1	1	0.04
	CAMARINES SUR	MERCEDES	1	1	0.05
		BUHI	1	1	0.03
		CALABANGA	0	1	0.03
VI	CAPIZ	CARAMOAN	1	1	0.05
		PONTEVEDRA	1	1	0.06
	NEGROS OCCIDENTAL	CAUAYAN	1	1	0.02
		SAN CARLOS CITY	0	1	0.02
VII	NEGROS ORIENTAL	MABINAY	1	1	0.03
		SIATON	1	1	0.03
		TAYASAN	1	1	0.07
VIII	EASTERN SAMAR	JIPAPAD	1	1	0.32
	NORTHERN SAMAR	VICTORIA	1	1	0.17
IX	ZAMBOANGA DEL NORTE	SIAYAN	1	1	0.07
X	BUKIDNON	TALAKAG	0	1	0.04
XI	DAVAO ORIENTAL	GOVERNOR GENEROSO	0	1	0.05
XII	NORTH COTABATO	BANISILAN	1	1	0.06
		KABACAN	3	4	0.12
		PIKIT	1	1	0.02
	SOUTH COTABATO	SURALLAH	0	1	0.03
ARMM	LANAO DEL SUR	TUPI	0	1	0.04
		MARAWI CITY	0	1	0.01
		AMPATUAN	0	1	0.11
		BARIRA	1	1	0.09
		BULUAN	1	1	0.06
		DATU ANG GAL MIDTIMBANG	1	2	0.23
		DATU ODIN SINSUAT	2	4	0.11
		DATU PIANG	1	1	0.11
		DATU SAUDI AMPATUAN	0	1	0.11
		MAMASAPANO	0	1	0.11
		PAGAGAWAN	0	1	0.08
		PAGALUNGAN	2	3	0.21
		PARANG	1	2	0.06
		RAJAH BUAYAN	0	1	0.12
	SOUTH UPI	1	1	0.07	
SULTAN KUDARAT	2	2	0.06		
CARAGA	AGUSAN DEL NORTE	JABONGA	1	1	0.10
	AGUSAN DEL SUR	LORETO	1	1	0.06
		SAN LUIS	1	1	0.08
NCR	METRO MANILA	LAS PIÑAS CITY	1	1	0.00
		PARAÑAQUE CITY	0	1	0.00
		PASIG CITY	1	1	0.00
PHILIPPINES			47	71	0.00