

**GLOBAL
ERADICATION
INITIATIVE**



every last child

POLIO ENDGAME

FAQs on Tuberculosis

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OBJECTIVES

Brief history of poliomyelitis

Polio eradication: global status

Polio eradication: national status and concerns

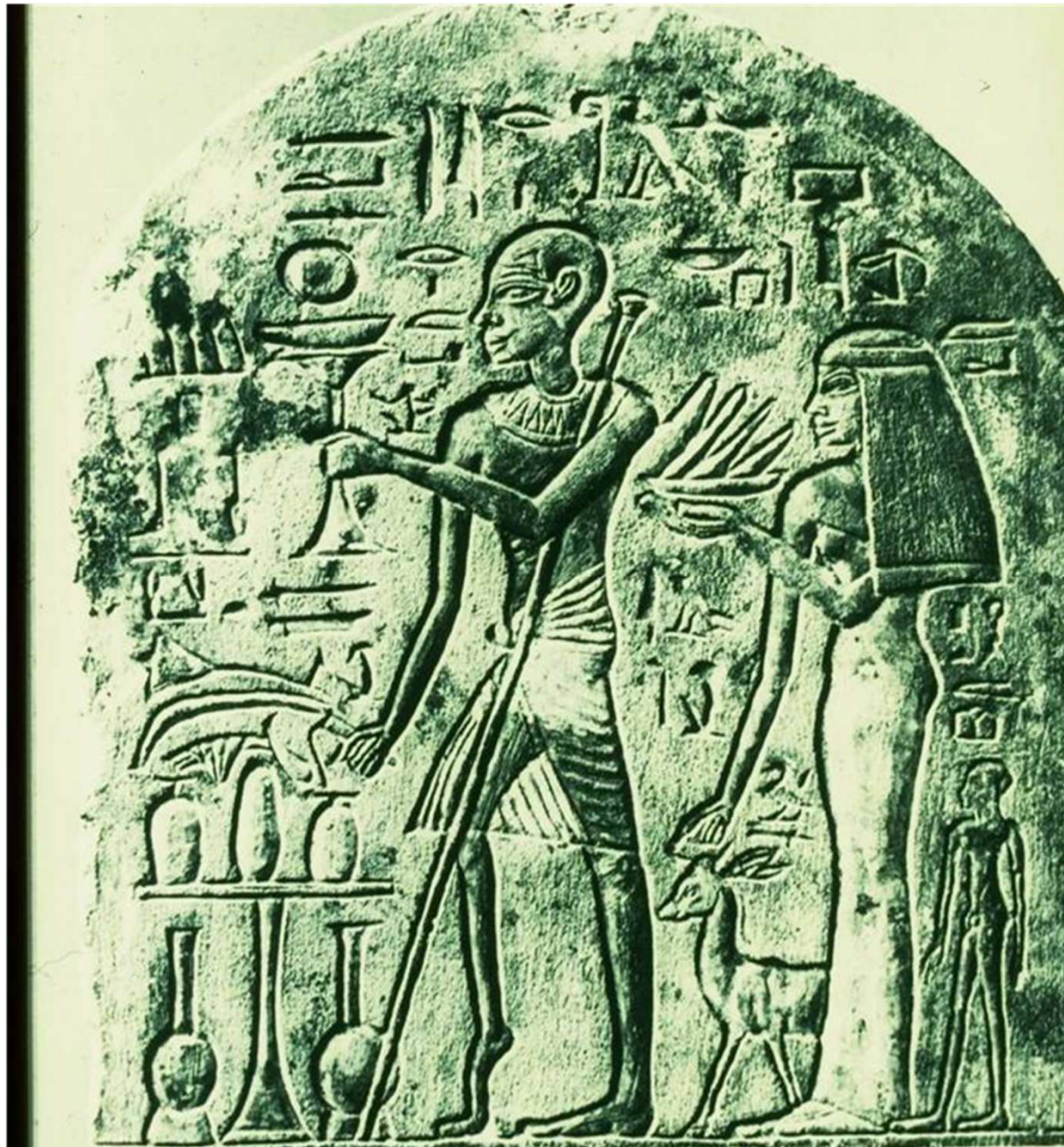
Role of Filipino doctors in the eradication program



Brief History

Dr. R. Tangermann, 2013





Dr. R. Tangermann, 2013

Polio Eradication - Historical Timeline

First description by Michael Underwood in 1789

- first outbreak documented in United States in 1843

Turn of century: change from endemic to epidemic spread with improving hygiene and sanitation

In 1952, > 58,000 poliomyelitis cases in U.S.

Rapid decline of polio in industrialized countries after introduction of vaccines (IPV, OPV) in the 1950s

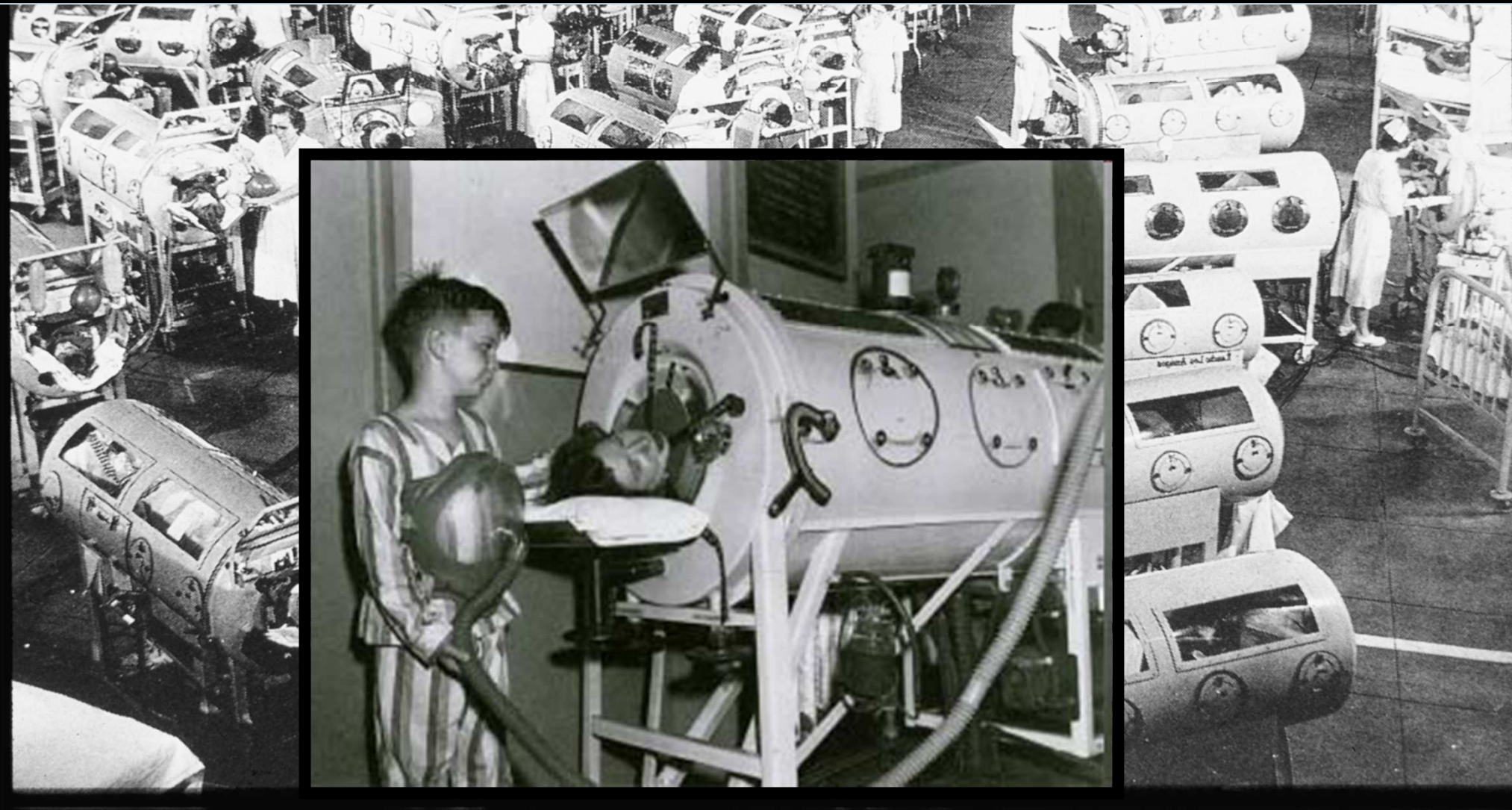
1967 to 1980: Smallpox eradication

1980s: EPI starting, early progress towards polio eradication in the Americas

1988: World Health Assembly resolution to eradicate poliomyelitis globally by 2000



Polio – fears in industrialized countries in 1950s...



EPI – Expanded Programme on Immunization

Success of smallpox helped to launch the EPI in 1974

- EPI - first organized global routine vaccination programme
- targeting infants in developing countries with 6 basic vaccines, including OPV
- set up and managed using lessons learned (and staff) from smallpox eradication

1980 – 1990: rapid improvement in EPI coverage

- 1990: achievement of 'universal childhood immunization' – 80% coverage in all countries

1988 – WHO estimates 350,000 paralytic polio cases /yr

World Health Assembly

Polio Resolution: 1988

HUMANITARIAN BENEFITS.

US\$1.5 BILLION ANNUAL SAVINGS.

STRENGTHEN HEALTH SYSTEMS.

ACCESS ALL CHILDREN & BUILD PEACE.



Polio – a paralyzing disease for life



Eradication Strategies



Eradication Strategy Development I

Choice of vaccine (OPV)

Vaccination strategy

- routine, supplementary campaigns / 'NIDs', mopping-up activities) → # of doses

Target age group - < 5 yr olds

Timing of campaigns / NIDs

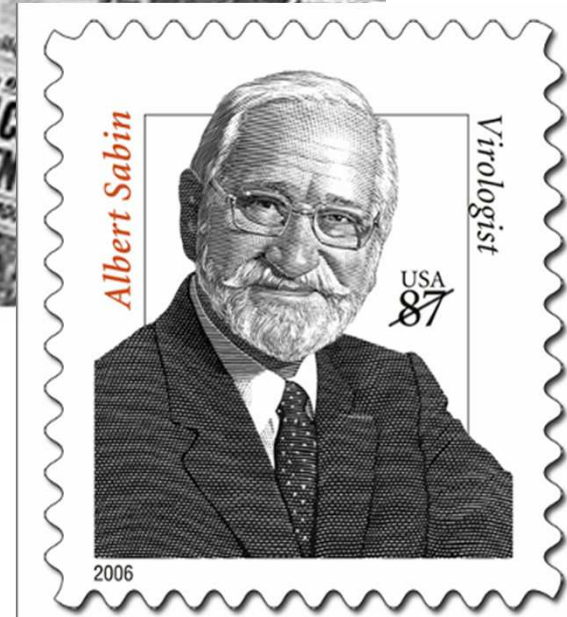
- low transmission season

Many 'silent infections' → large-scale mop-ups



12 April 1955: The Salk vaccine works ..

.. but was largely replaced by the Sabin vaccine in early 1960s.



Strategy Development II

Unreliability of clinical diagnosis: surveillance for syndrome : AFP

Acute flaccid (floppy) paralysis (AFP) cases reported in absence of polio

Performance indicators for AFP surveillance

Contribution of laboratory network essential

- Lab quality control - annual accreditation

Polio Eradication Strategies

- 1. High routine immunization coverage**
- 2. National Immunization Days (NIDs)**
- 3. Acute Flaccid Paralysis (AFP) surveillance**
- 4. 'Mop-up' campaigns**



World Health Assembly

Resolution: 1988

**...polio eradication by the
end of the year 2000...**

Humanitarian benefits.

US\$1.5 Billion savings annually.

Global surveillance & disease control.

Peace-building.



WPR certified polio-free 29 Oct 2000



All countries saw last indigenous polio cases 1-2 decades ago!

Country	Last WPV**
Mongolia	1992
Philippines	May 1993
China	September 1994
Papua New Guinea	1994*
Lao PDR	July 1996
Viet Nam	January 1997
Cambodia	March 1997

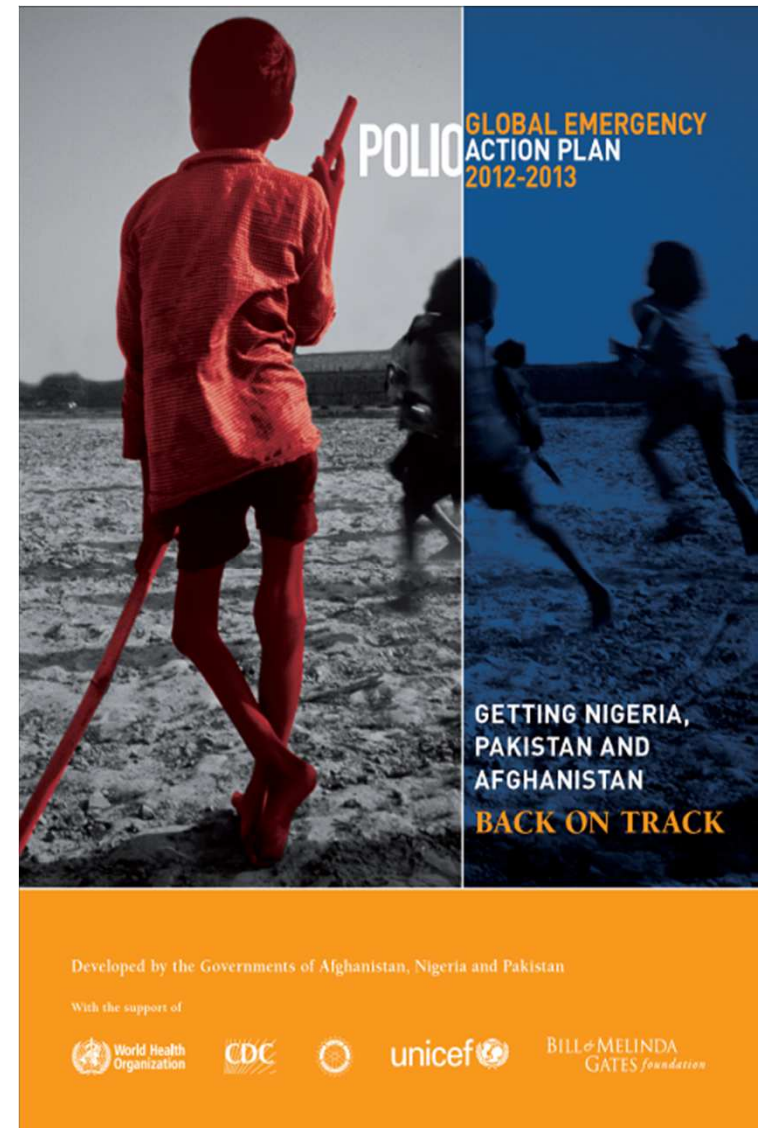
* clinically confirmed; no wild poliovirus ever identified in PNG

** data source: national certification documentation 2000

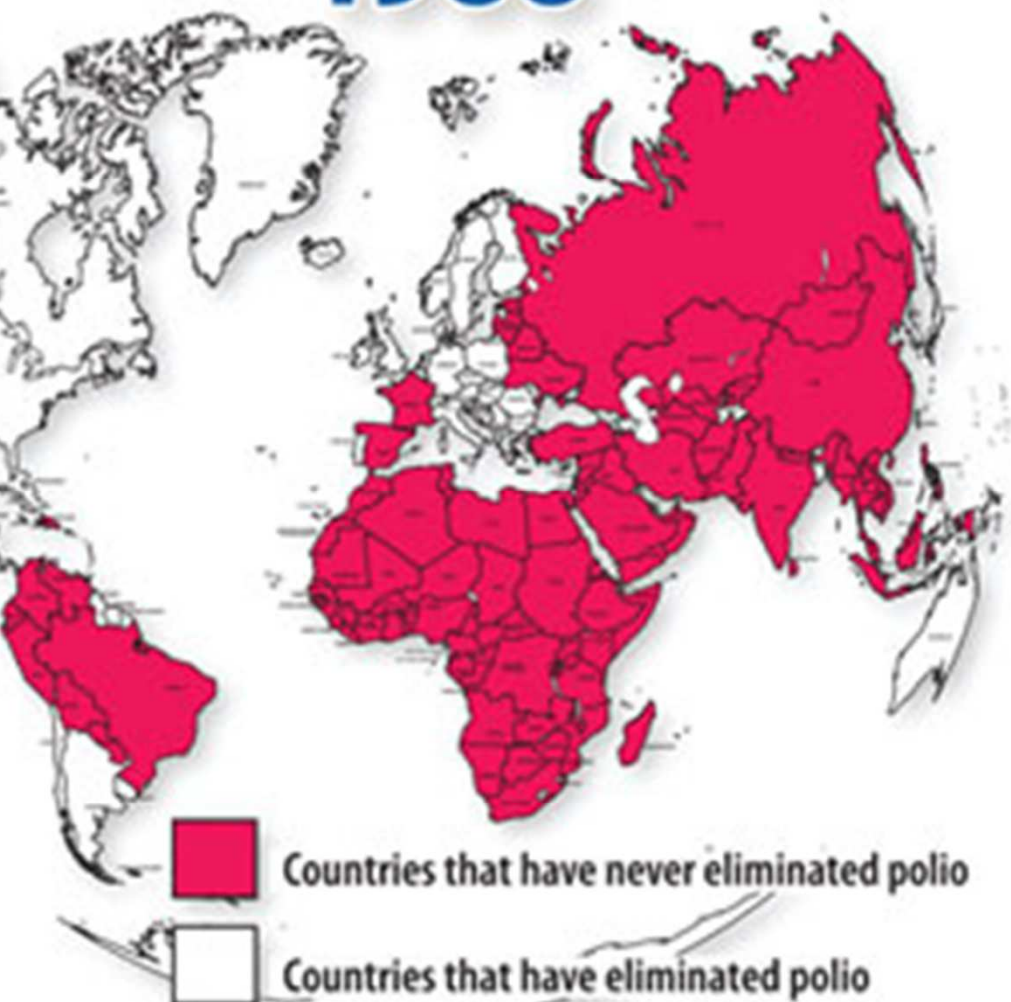
World Health Assembly

*"DECLARES polio eradication an emergency for global public health, ...requests the Director-General to rapidly finalize a **polio endgame plan**, with a tOPV-bOPV switch".*

25 May 2012



1988

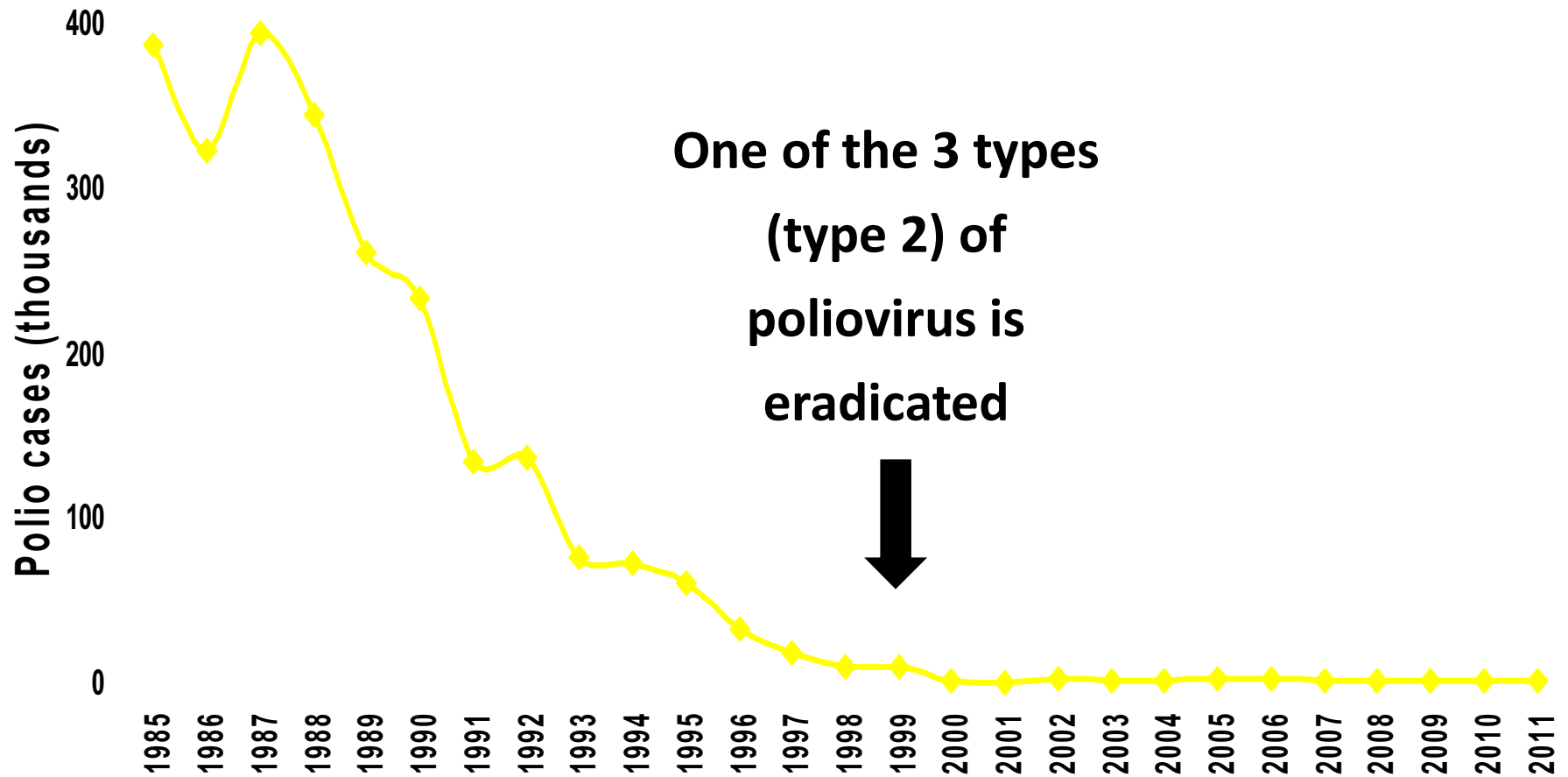


2014*



*As of April 29,

Polio cases globally, 1988-2011



Wild poliovirus type 1 and Circulating vaccine-derived poliovirus cases

Total cases	Year-to-date 2015		Year-to-date 2014		Total in 2014	
	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV
Globally	7	0	11	3	359	54
- in endemic countries	7	0	11	3	340	51
- in non-endemic countries	0	0	0	0	19	3

Case breakdown by country

Countries	Year-to-date 2015		Year-to-date 2014		Total in 2014		Onset of paralysis of most recent case	
	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV
Pakistan	7	0	9	3	306	21	17-Jan-15	13-Dec-14
Afghanistan	0	0	2	0	28	0	04-Dec-14	N/A
Nigeria	0	0	0	0	6	30	24-Jul-14	16-Nov-14
Somalia	0	0	0	0	5	0	11-Aug-14	N/A
Equatorial Guinea	0	0	0	0	5	0	03-May-14	N/A
Iraq	0	0	0	0	2	0	07-Apr-14	N/A
Cameroon	0	0	0	0	5	0	09-Jul-14	N/A
Syrian Arab Republic	0	0	0	0	1	0	21-Jan-14	N/A
Ethiopia	0	0	0	0	1	0	05-Jan-14	N/A
South Sudan	0	0	0	0	0	2	N/A	12-Sep-14
Madagascar	0	0	0	0	0	1	N/A	29-Sep-14

Madagascar is cVDPV1, all others cVDPV2. NA: onset of paralysis in most recent case is prior to 2014.
[non-vaccine-derived poliovirus](#) (cVDPV) type 2 cases with greater than or equal to 6nt (10nt for type 1)
 derived from sabin in VP1 and other evidence for established circulation.
 Exclude VDPV from non-AEP sources.

Wild Poliovirus & cVDPV¹ Cases², 2015 01 January – 10 February



¹cVDPV is associated with ≥ 2 AFP cases or non-household contacts. VDPV2 cases with ≥ 6 (≥ 10 for type1) nucleotides difference from Sabin in VP1 are reported here. ²Excludes viruses detected from environmental surveillance.

Data in WHO HQ as of 10 February 2015

MAINTAINING POLIO FREE STATUS

HIGH QUALITY SURVEILLANCE

HIGH IMMUNIZATION COVERAGE (>95%)

ADEQUATE STOOL COLLECTION AND HIGH QUALITY LABORATORY

Performance Indicators

AFP Rate of at least 2 per 100,000 pop. of <15 yrs

≥ 80% Adequacy of stool specimens

≥ 10% NPEV isolation rate at all levels

≥ 80% of cases were reported within 14 days after the onset of paralysis

≥ 80% of cases were investigated within 24-48 hours after report

≥ 80% of cases were followed up 60 days after the onset of paralysis

≥ 80% of cases were classified within 90 days after onset of paralysis (through the AFP Expert Panel meetings)

≥ 80% of stool specimens receive at the National Reference Laboratory (RITM) within 3 days after collection

Diagnosis

Symptoms of paralytic polio:

- Rapid progress to paralysis (2-3 days)
- Accompanied by fever, muscle pain
- Sensation intact
- Paralysis asymmetric, proximal > distal, deep tendon reflexes diminished or absent

However, clinical picture not 'typical', can look like other neurological diseases (Guillain-Barre Syndrome)

Cannot make definitive diagnosis through serological (blood) testing

Gold standard test is viral culture from stool specimens



All cases of Acute Onset Flaccid Paralysis(AFP) are reported & investigated

Difficult to distinguish clinically from other causes of AFP

Polio cases with atypical presentation may be missed

Syndromic approach of investigation of all AFP ensures detection of all Polio cases

Chart 1. Non-polio AFP rate (per 100 000 persons < 15 years of age) and adequate specimen collection rate, 2012–2014

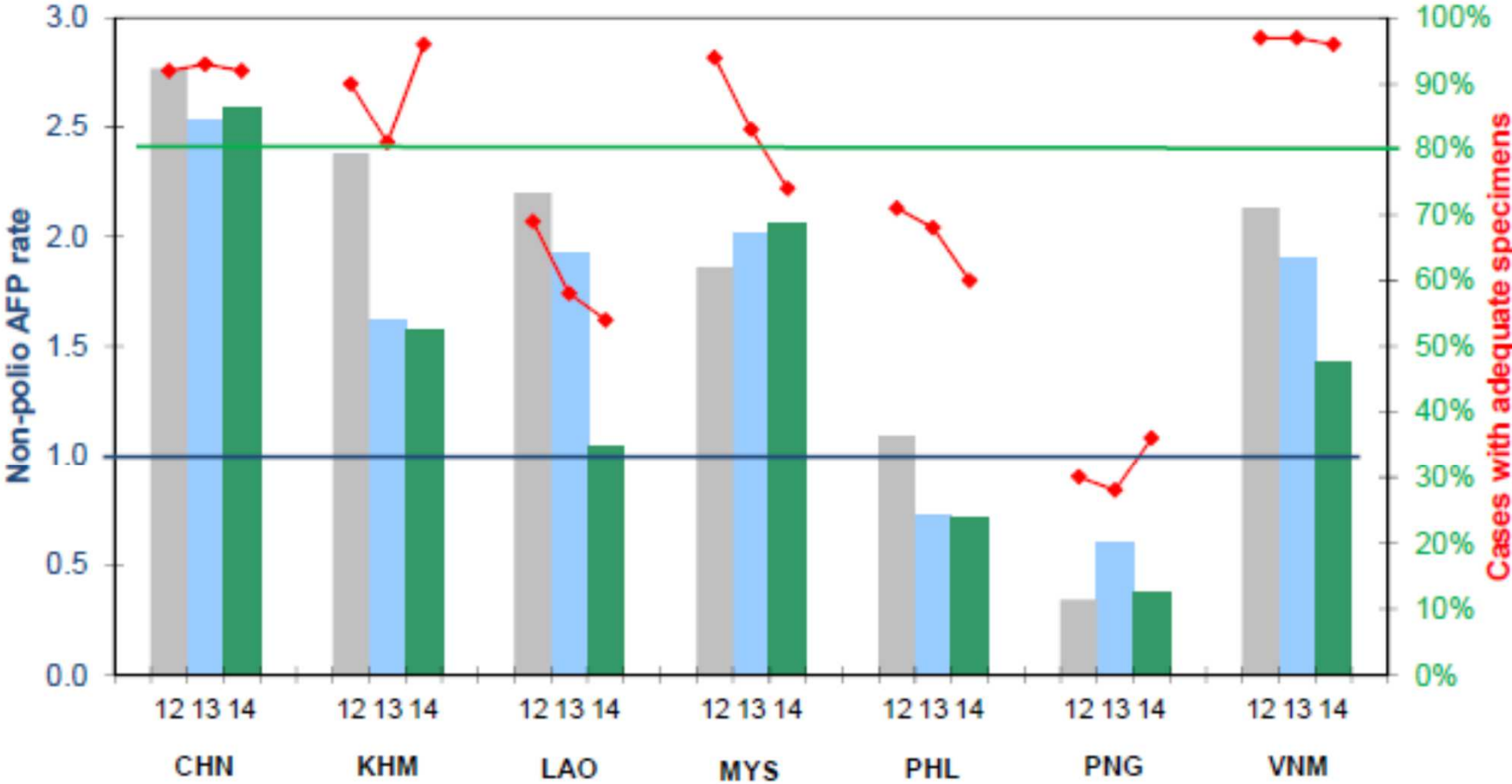
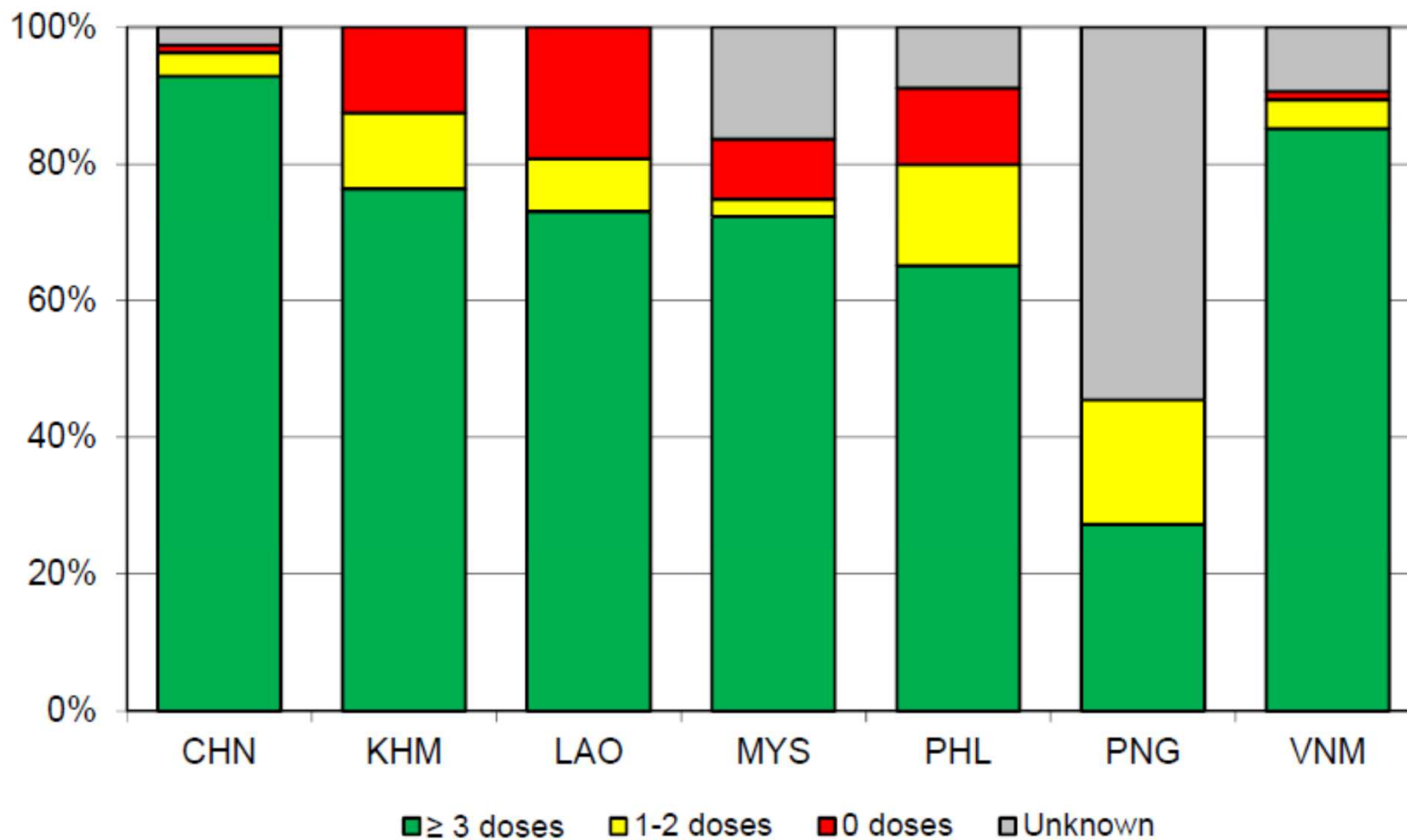


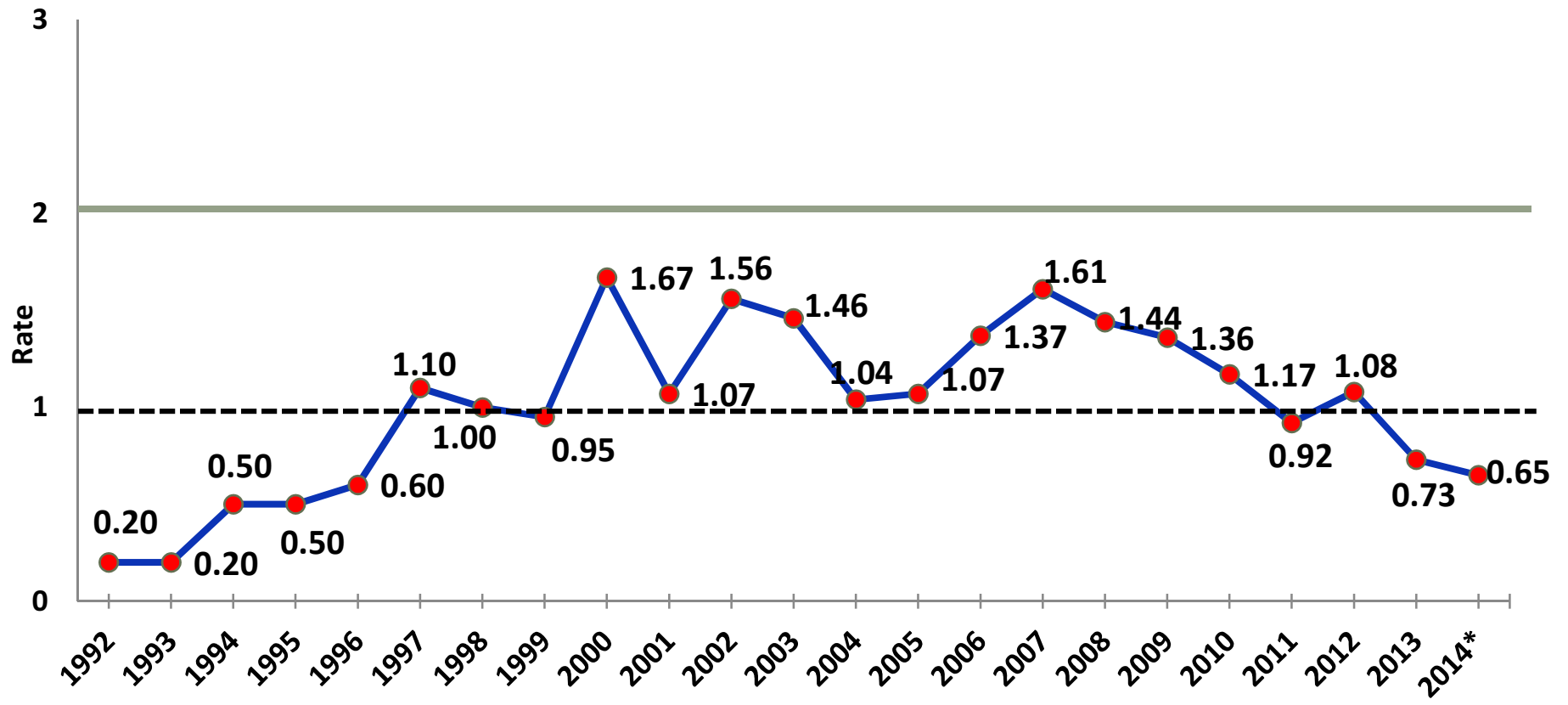
Chart 3. Polio immunization status of reported AFP cases, 2014



Surveillance Update on Acute Flaccid Paralysis (AFP) Performance Indicators Philippines, 2015



Trend for Non-Polio AFP Rate Philippines, 1992-2014*



*2014 annualized data as of MW 36

— 2/100K non-polio AFP operational target
- - - - - Minimum 1/100K non-polio AFP target

Polio historical timeline



As early as 1700s

evidence of sporadic epidemics of polio predates history

1988

World Health Assembly resolves to eradicate polio by 2000

1993

Last case of Polio in the Philippines

2000

Philippines certified polio-free

2001

3 cases of cVDPV was detected in the country

2002

Balik Patak program in Feb and March (OPV-NID)

2011

Wild poliovirus outbreak in China

2013

Countries remain endemic:
Afghanistan
Nigeria
Pakistan

2014

Pakistan, Cameroon
Syrian Arab Republic pose greatest risk of further wild poliovirus exportations
*WHO statement

Threats to Polio-Free Status

- Long distance importation of poliovirus continues
 - 2013 Middle East (Pakistan origin)
 - 2013 Horn of Africa (Nigeria origin)
- Previous imported poliovirus into WPR
 - 2006 Singapore (from Nigeria)
 - 2009 Australia (from Pakistan)
 - 2011 China (from Pakistan)
 - 2012 China (VDPV from Myanmar)
- Emergence and circulation of VDPVs
 - cVDPVs: Philippines, China, Cambodia
 - aVDPVs, special concern in low-coverage areas

Threats to Polio-Free Status

- Increasing contact with persons from polio-affected countries
 - Foreign workers
 - Overseas workers
 - International travellers
 - Asylum-seekers
 - UN Peace Keeping Forces
 - Medical tourists
 - Religious pilgrims



Environmental conditions favor virus



Current situation (Phil)

*based from the NCC Report 2013

❖ The Philippines is at high risk for wild poliovirus importation and outbreak because of:

1. Routine immunization coverage gaps
2. No wide-scale supplementary immunization since 2002
3. Surveillance not sensitive enough
4. High population density
5. Frequent international and domestic population movements

Current situation (Phil)

National OPV3 coverage (2012) 86% (target 95%)

Subnational coverage varies widely

- 65-96% at regional level
- 35-178% at provincial/city level
- 74% of provinces/cities less than 90% coverage

No SIAs for over a decade

- 2+ birth cohorts (5.5 million) not fully protected

Areas high risk for poliovirus outbreak (2012 data) and areas recently affected by calamities

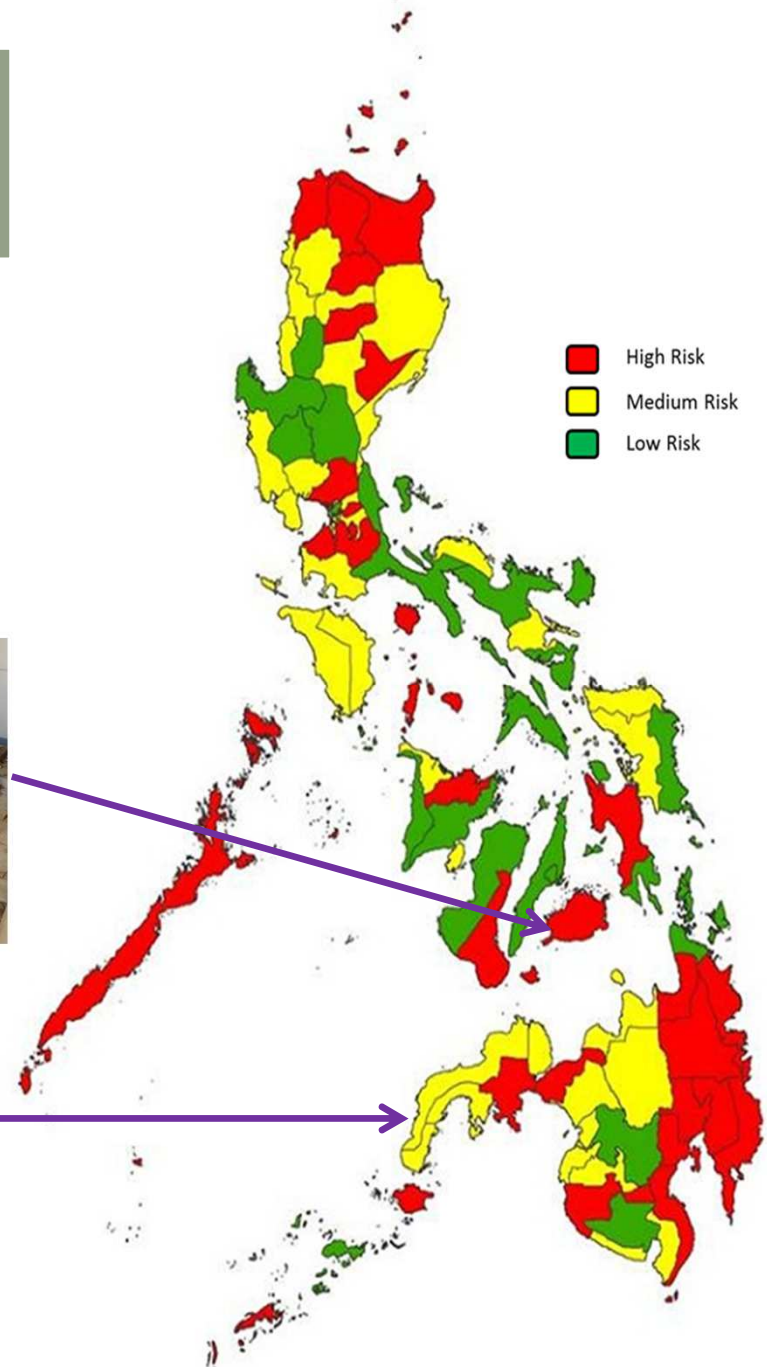
Typhoon Yolanda
8 Nov 2013



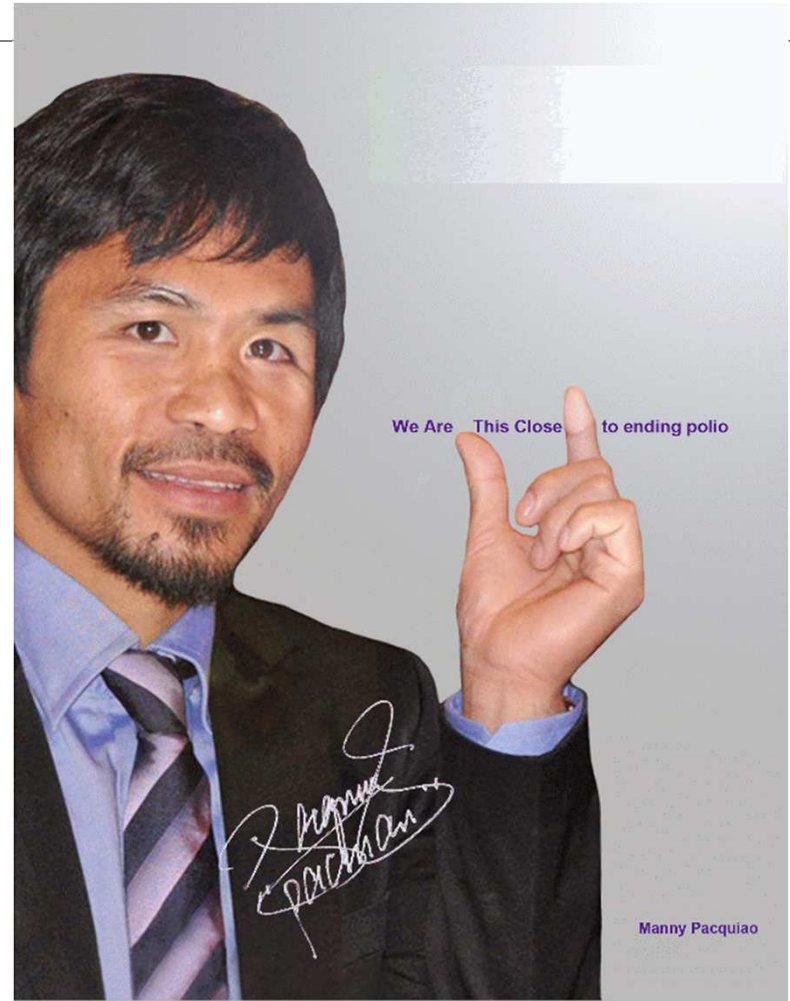
Bohol earthquake
15 Oct 2013



Siege of Zamboanga City 9 Sep 2013



We are this close to ending Polio





Are we???

For Attending Doctors : URGENT REQUEST

Report all cases of AFP and facilitate in the case investigation

Mandate to order in the patient's chart:

***AFP case:** 1)refer to Infectious Disease Surveillance Nurse*

2) collect stools according to AFP protocol

***Note:** This is covered by DOH ADMINISTRATIVE ORDER*

Participate in the immunization campaigns and register children's vaccination status



NATIONAL GBS(Guillain Barre' Syndrome) SURVEILLANCE

Please register all your cases of AFP and GBS in the **National GBS Surveillance Facebook page** or **inform your disease surveillance officer.**

***Let us work together for a Polio free
Philippines.... For a Polio free World.....***

***Our legacy to our people and to the
generations to come!!!!!!***





Thank you for your commitment to a Polio-free World!!!