

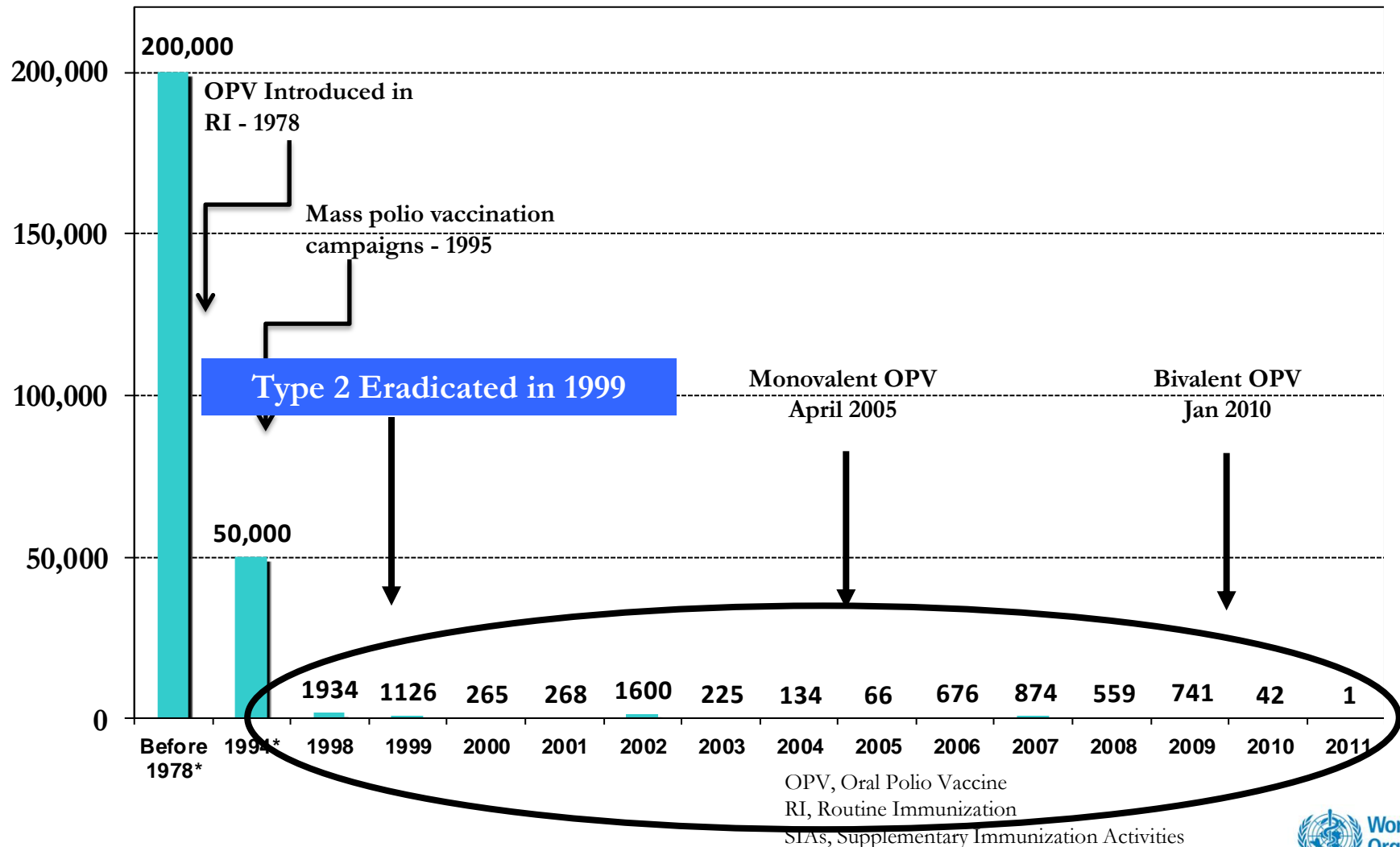
# Polio Eradication in India



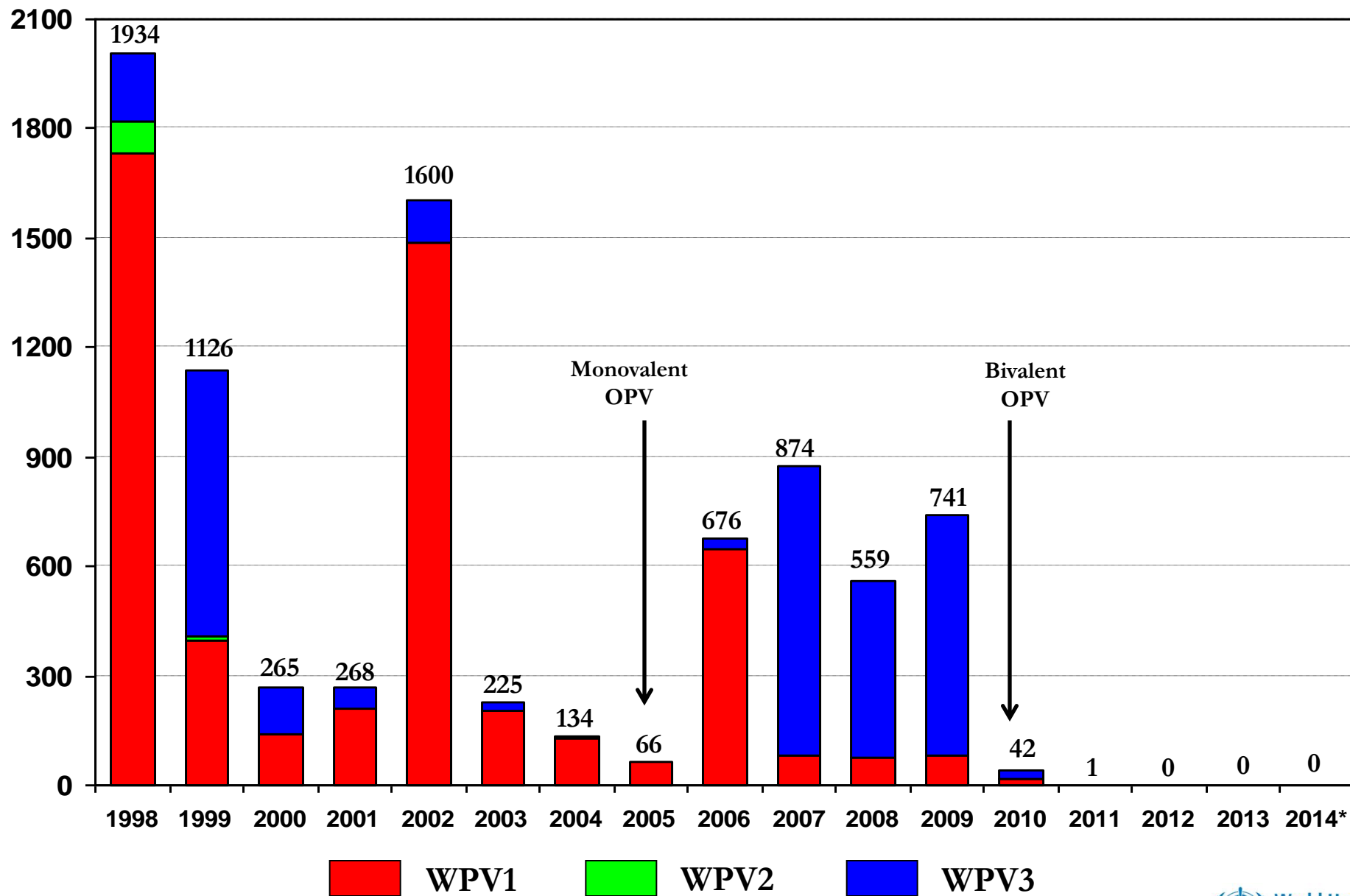
Dr Sunil Bahl  
Deputy Project Manager  
WHO Country Office for India  
28 October 2014

# History of Polio in India

Number of Cases



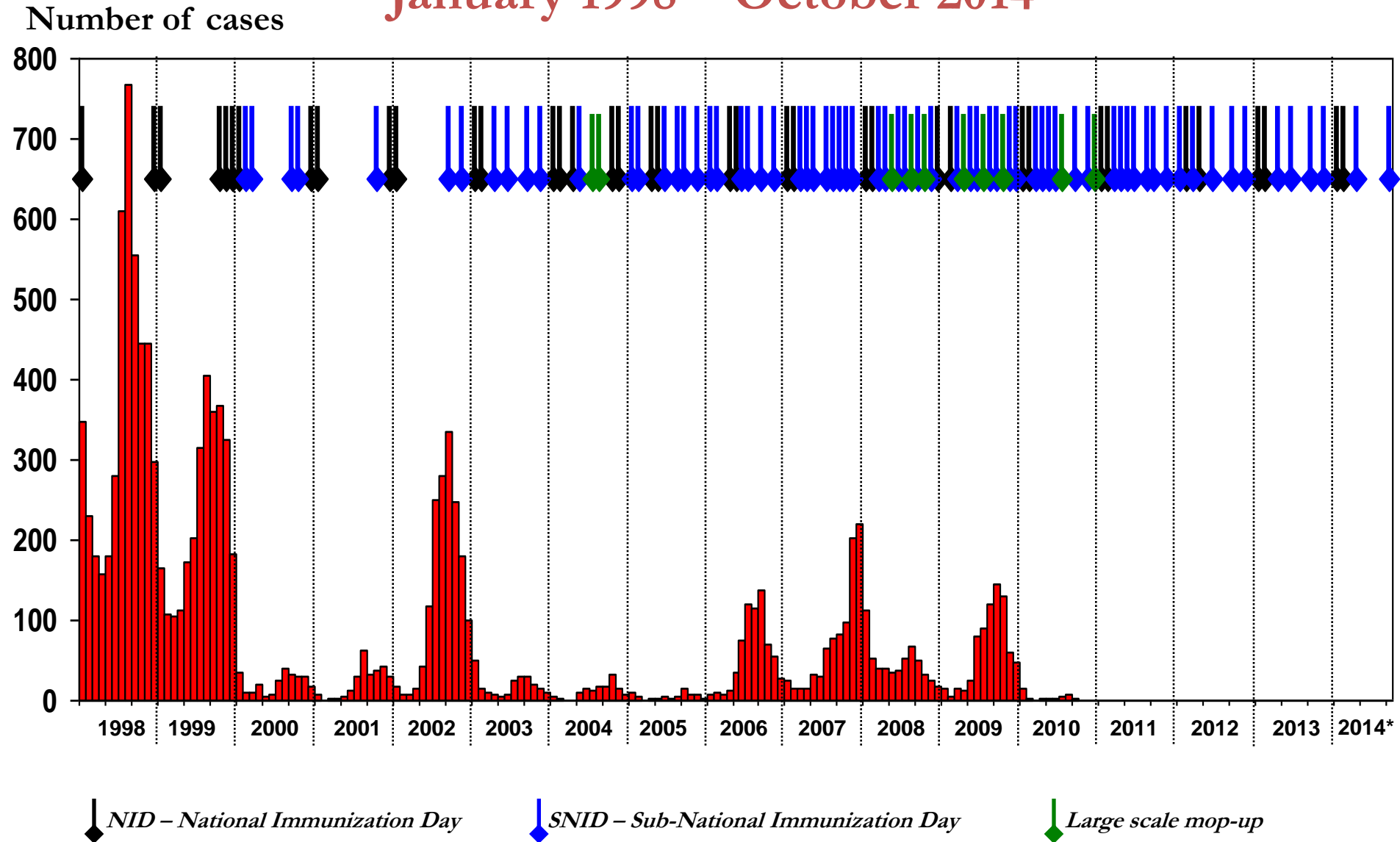
# Wild polio virus (WPV) cases by type, India



**The success story of polio eradication**  
*A story of innovations, perseverance, dedication,  
commitment and partnerships*

# Monthly incidence of wild poliovirus cases in India

## January 1998 – October 2014



\* data as on 11 October, 2014

# Scale of polio vaccination campaigns



**Each nation-wide polio vaccination campaign:**

- 170 million children (under 5 years of age) vaccinated
- > 200 million households visited by teams
- > 700,000 vaccination booths set up
- ~ 2.3 million vaccinators & 155,000 supervisors deployed
- ~ 1.5 million vaccine carriers used

# Strong Government ownership & engagement

- Program funding by Govt of India from domestic budget
  - ~ 200 million USD each year
- Highest level political engagement
  - Federal & State level



Mr Pranab Mukherjee, Hon'ble President of India  
administering oral polio vaccine drops to a child



Dr Harsh Vardhan, Hon'ble Minister of Health &  
Family Welfare vaccinating a child



# Meticulous planning & implementation of vaccination campaigns

- Detailed micro planning for campaigns
  - team composition & workload
  - clarity on area/houses
  - inbuilt supervisory plan
- Separate plan for
  - house-to-house vaccination
  - mobile & migrant populations
- Revision of plans after each campaign
- Tools to collect data on each household, plan concurrent interventions & ensure accountability at the most peripheral level



Every child marked



Every house marked



# Mass/social mobilization activities

## Mass mobilization activities

- Poster/banners
- Celebrity Endorsements
- Print Media Engagement
- Electronic media/Television
- Advocacy & Partnerships

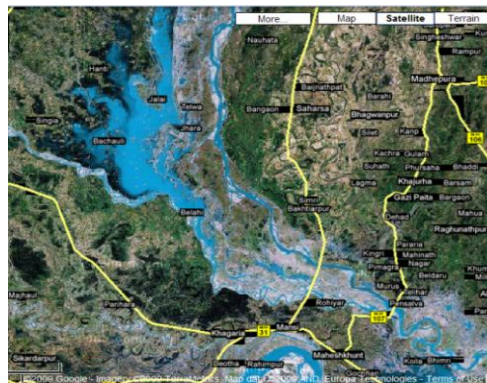


# Conscious and persistent efforts to search & vaccinate all high risk areas/populations

Immunization of newborns



Kosi river operational intensification



Intense focus on mobile populations



- 8 million children in transit immunized in India each round
- 100,000 of these in running trains

Immunization of underserved communities



Special strategy for vaccinating children in underserved (Muslim) communities

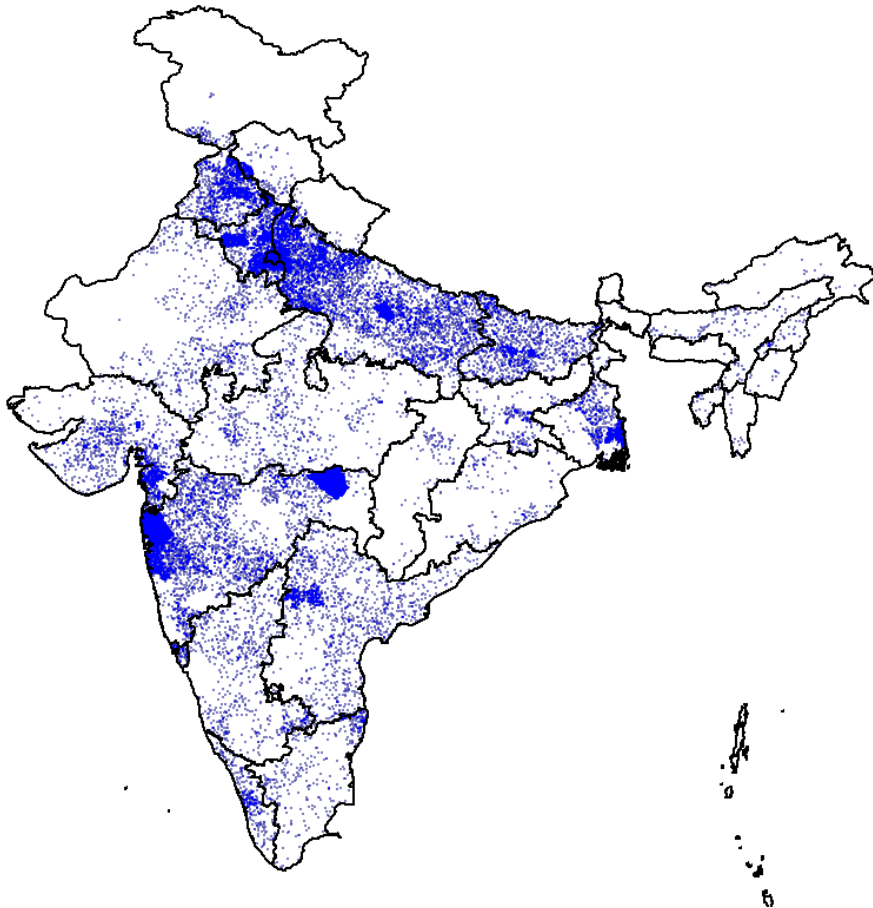
Religious congregations



2 million children vaccinated in congregations each year



# Mapping and reaching migrants



● = 10 migrant sites



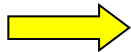
**Number of sites with migrants identified : ~257,000**  
**Number of children < 5 yrs in these sites : ~ 4.1 million**

# Accurate, real time monitoring data on campaign quality drives immediate corrective actions



- > 4300 independent monitors of WHO & UNICEF
  - Monitor campaign preparedness and implementation
- Monitoring **feedback used extensively by district/state & national officials** for making corrections during round and prior to next round

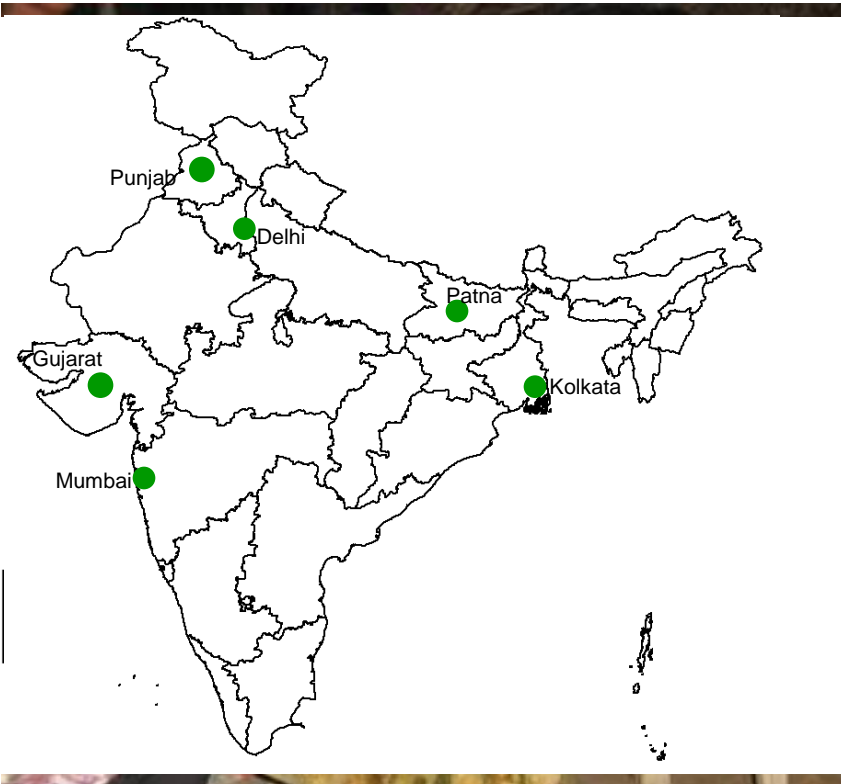
Data  
collected on



- Level of involvement of government functionaries
- Quality of microplans
- Training quality
- Communication & social mobilization plans
- Missed areas/ missed children
- Operational quality of campaigns

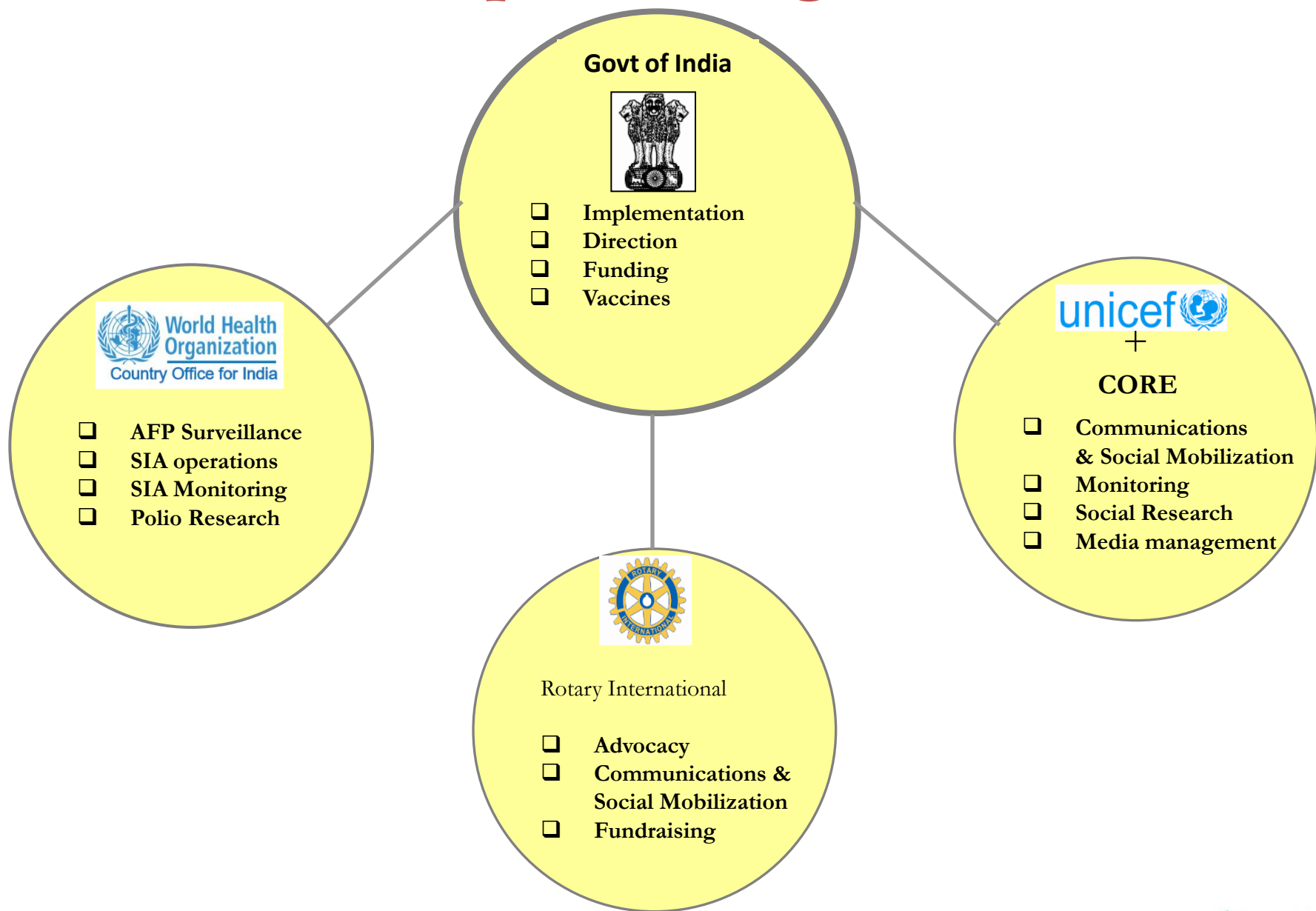
# Surveillance for poliovirus

- > 40,000 health facilities enrolled as reporting sites – govt. and pvt. (incl. traditional healers) – report weekly



- > 50,000 acute flaccid paralysis cases investigated annually
- > 100,000 stool specimens collected and tested in 8 WHO accredited polio laboratories
- Environmental sampling in 6 states with large migrant popns.

# Polio Implementing Partners





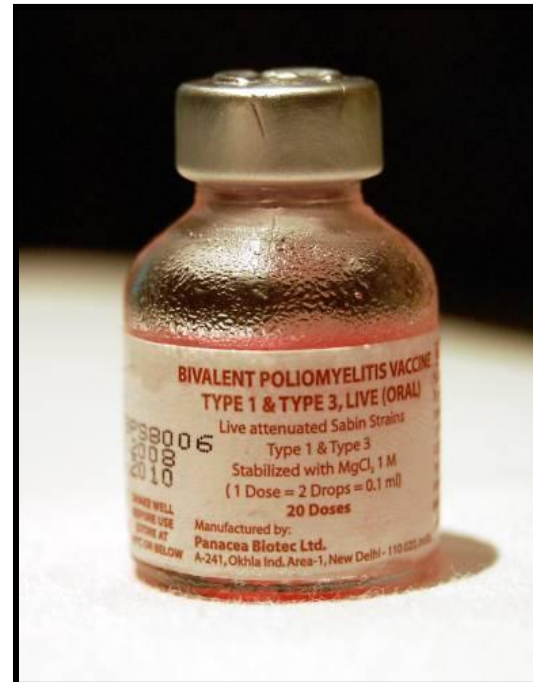
# Research studies conducted in India

- Vaccine efficacy studies
- Vaccine trials : Guided introduction of mOPV and bOPV
- Seroprevalence studies in high risk districts to assess immunity levels against polioviruses
- Mucosal immunity studies to assess impact of bOPV and inactivated polio vaccine (IPV) on mucosal immunity in children
- Study to assess efficacy of bOPV in RI, with and without IPV

# Introduction and use of more efficacious vaccines, India

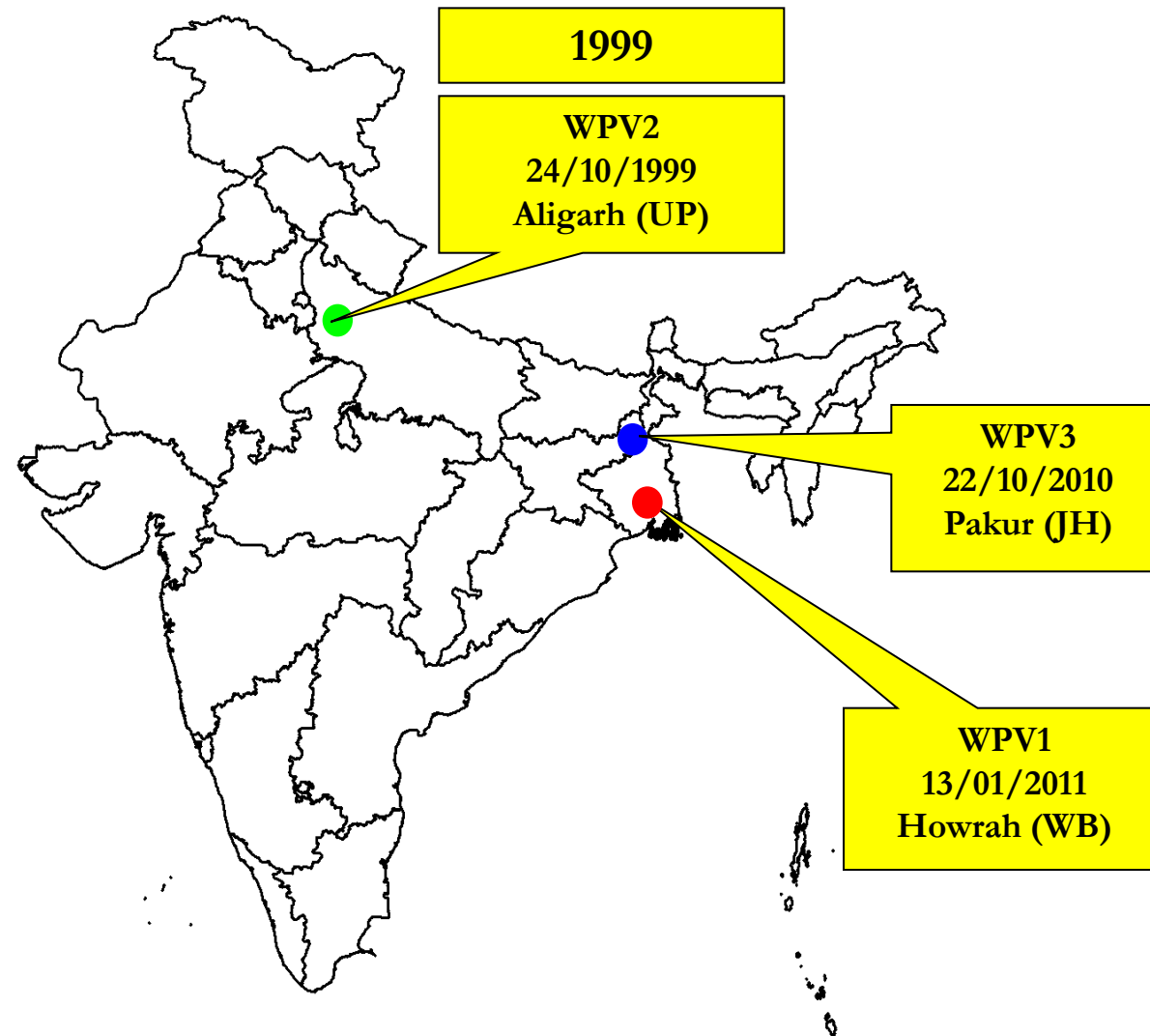


Monovalent oral polio vaccine introduced in  
April 2005



Bivalent oral polio vaccine introduced in  
January 2010

# Major Achievements



**Feb 2012:**

WHO removed India  
from the list of polio  
endemic countries

# 27 March 2014: WHO South East Asia Region certified polio-free

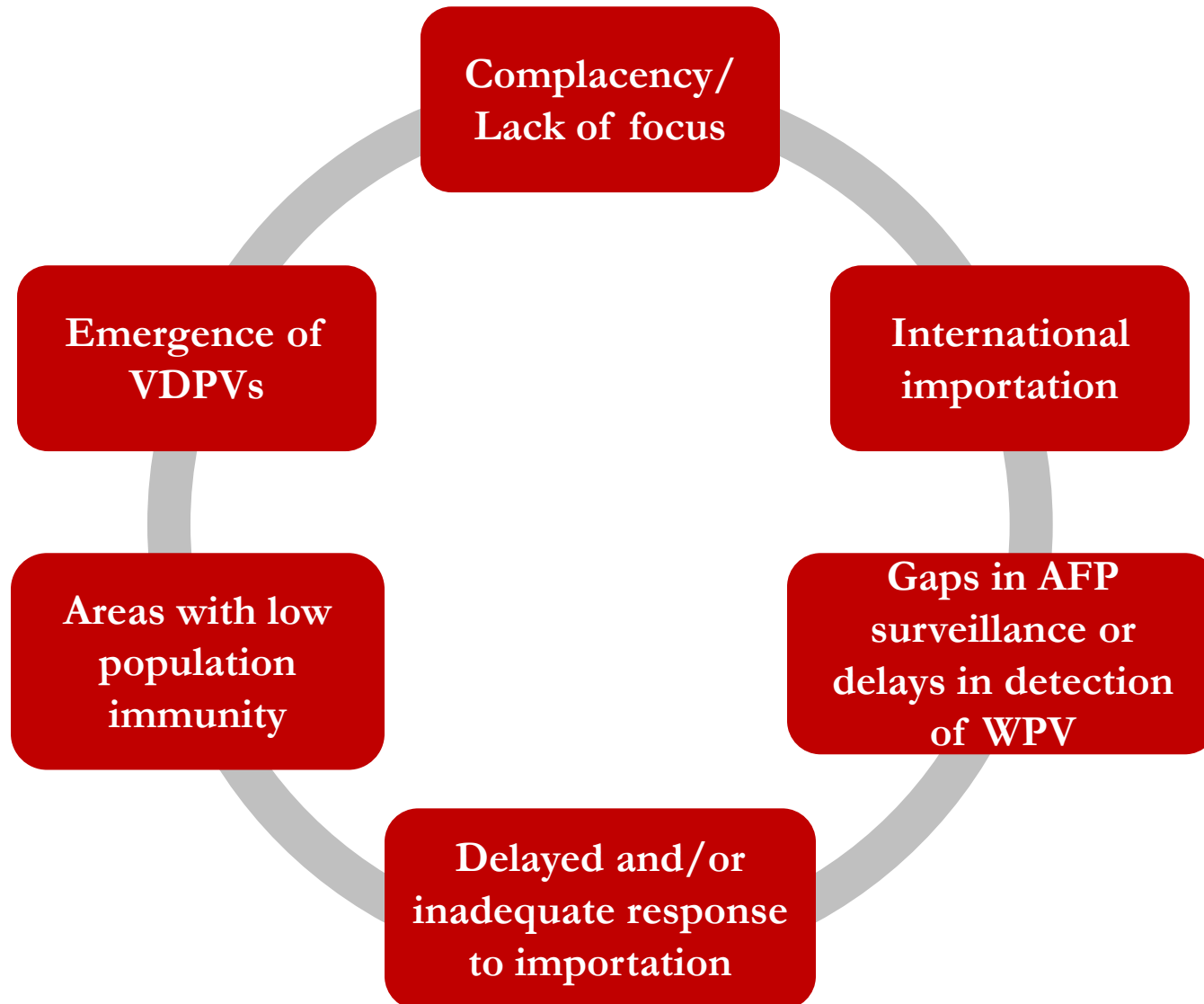


Dr Poonam Khetrapal Singh, Regional Director, WHO SEARO receiving the polio-free certificate from the Chairperson of Regional Certification Commission for Polio Eradication

...tremendous progress made

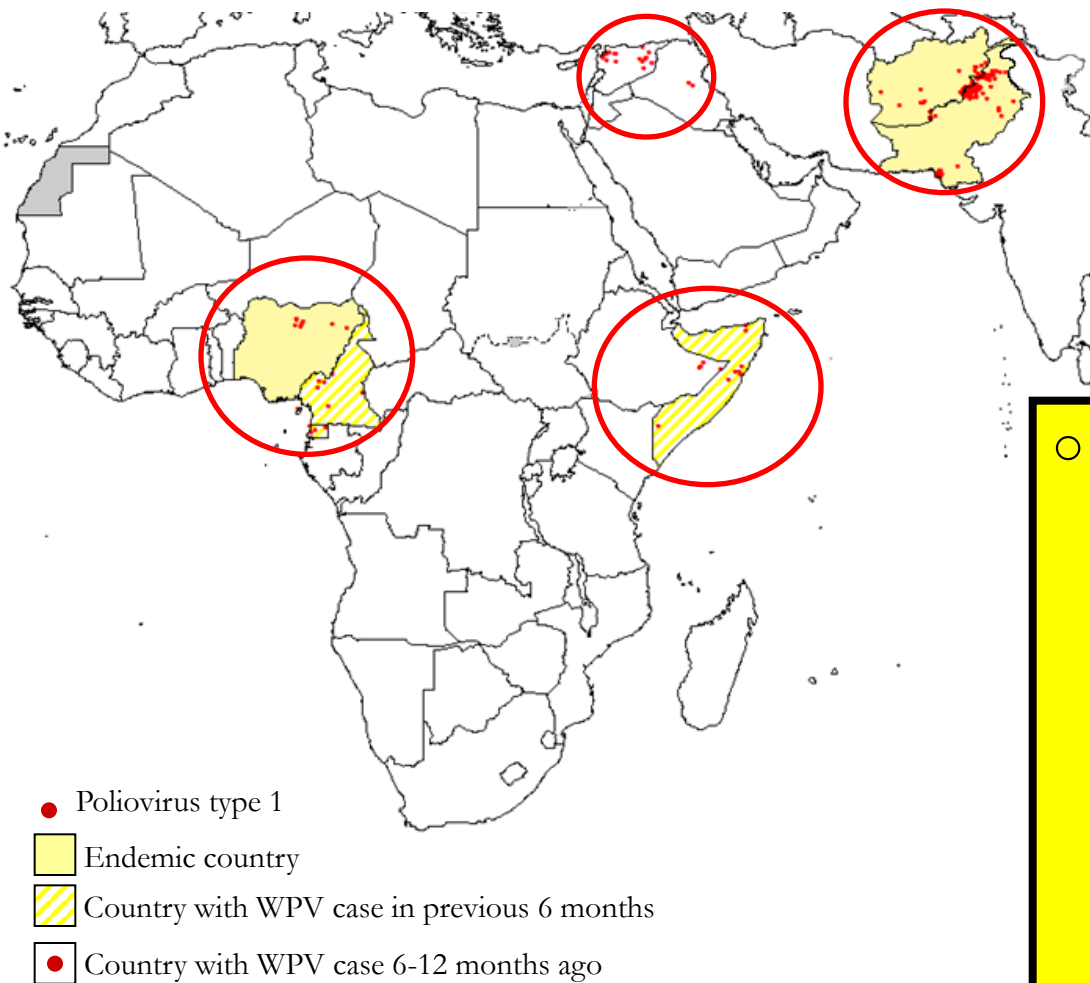
But the risks remain...

# Current risks to polio eradication in India





# International importation of wild poliovirus



\*15 October 2013 – 14 October 2014

Data in WHO HQ as of 14 October 2014

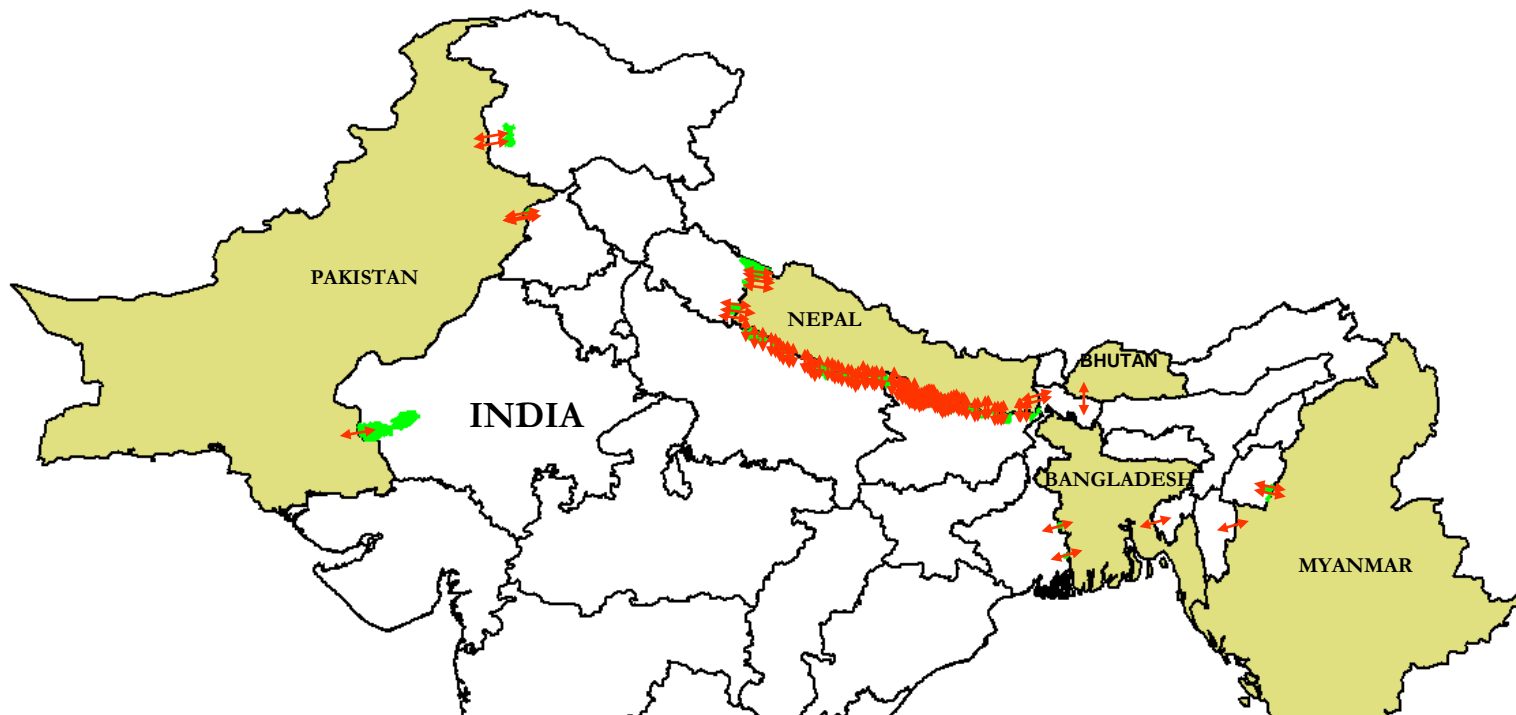
- Active transmission of wild poliovirus—a total of 243 cases reported in 2014\*
  - Pakistan-206
  - Afghanistan-12
  - Nigeria-6
  - Cameroon-5
  - Equatorial Guinea-5
  - Somalia-5
  - Iraq-2
  - Ethiopia-1
  - Syria-1

# Program priorities for polio eradication



# Reducing risk of importation

> 1.5 million children vaccinated at 102 vaccination posts



↕ Vaccination post  
■ Blocks with vaccination post

Mandatory polio vaccination for travellers to and from 8 polio affected countries  
from 1 March 2014

# Planning for the Polio Endgame Strategy

- Risk-free withdrawal of OPV to minimize the risks associated with use of OPV in the post eradication phase
  - Switch from tOPV to bOPV for RI and SIAs (~ 2016)
    - Build type 2 immunity prior to switch to minimize risk of VDPV emergence post switch – improve **RI coverage** and **introduce IPV** (2015)
  - Withdraw all OPV from programme (~2019)

# Excerpts from the Independent Monitoring Board of GPEI\*

“India should demonstrate to every country where polio still exists, and to the world, that there is no such thing as impossible.”

“India has demonstrated the value of a logical and systematic approach. It led to the quality of data being challenged and improved. It led to the programme wanting to learn from its trials and its errors, and improving as a result.”

# Excerpts from the Independent Monitoring Board of GPEI

“For years, many believed that the challenge of stopping polio transmission in India would be the downfall of the Programme; that, quite simply, it could not be done. They have been proven wrong. What many thought unachievable has been achieved. Confidence in the Programme should receive a major boost as a result of this.”

“Polio is gone from India – a magnificent achievement and proof of the capability of a country to succeed when it truly takes to heart the mission of protecting its people from this vicious disease.”



# Thank You