

# **Interruption of Poliovirus Transmission Progress and Risk Management**

SAGE 9 April, 2013

Department of Polio Operations &  
Research, WHO

# Outline

- Status of wild and vaccine derived poliovirus
- ~~transmission~~

transmission

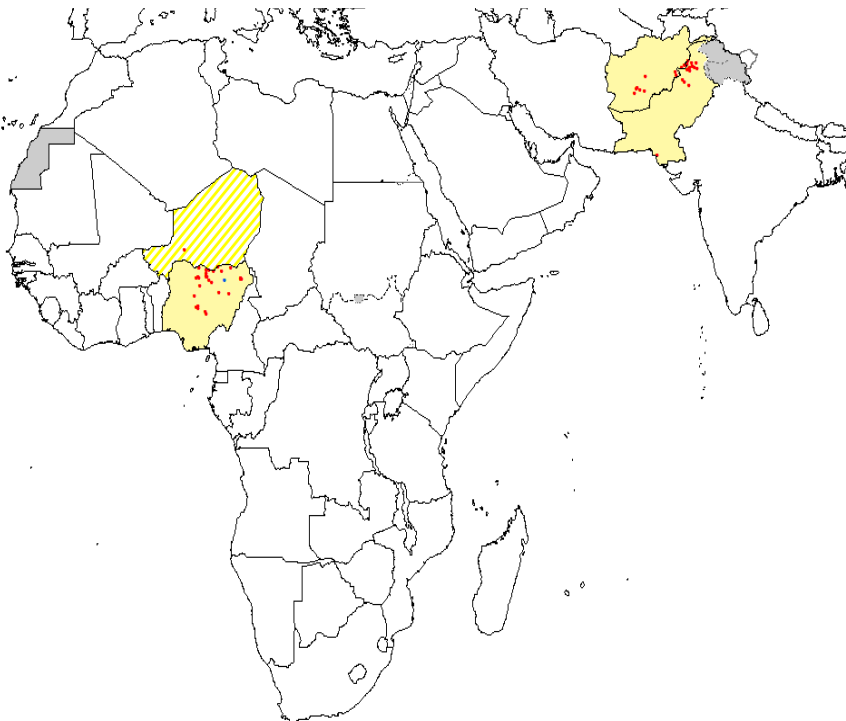
- Poliovirus transmission and security threats
- Strategies to manage security risks and social acceptance

# Questions for SAGE

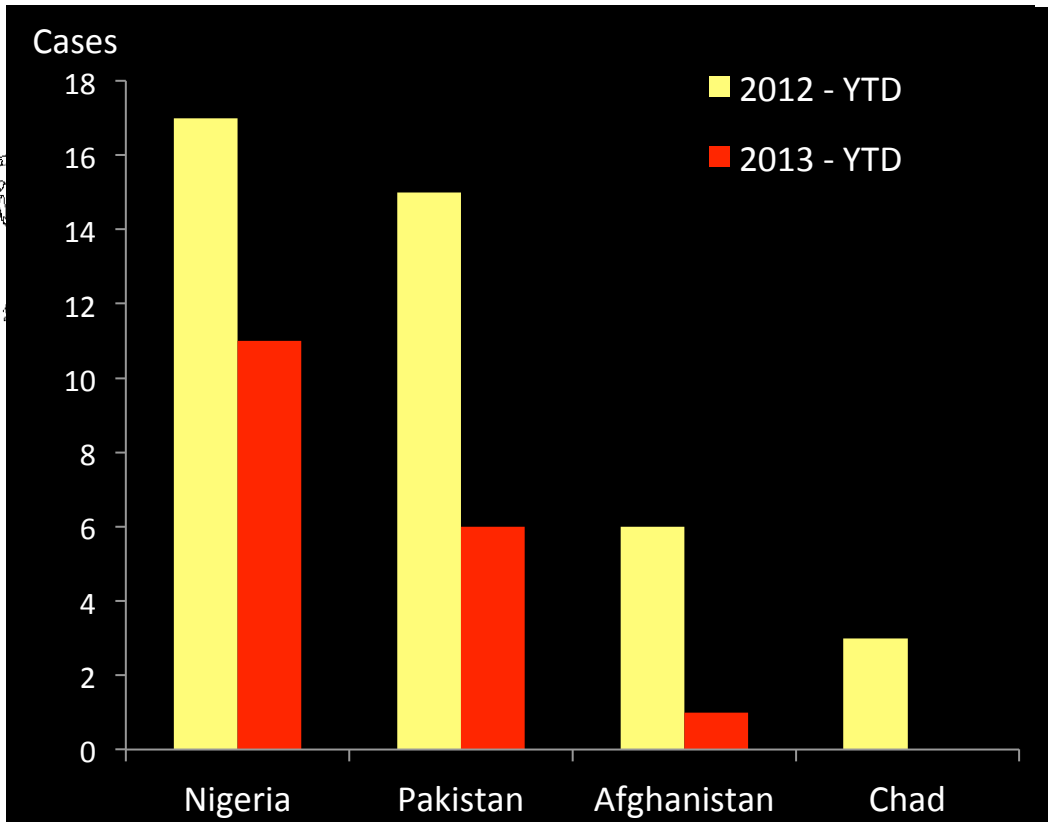
strategic approach to manage security threats in Pakistan, Nigeria, Afghanistan and Somalia?

- How should the program ensure that stopping cVDPVs is pursued with the same urgency as interrupting WPV?

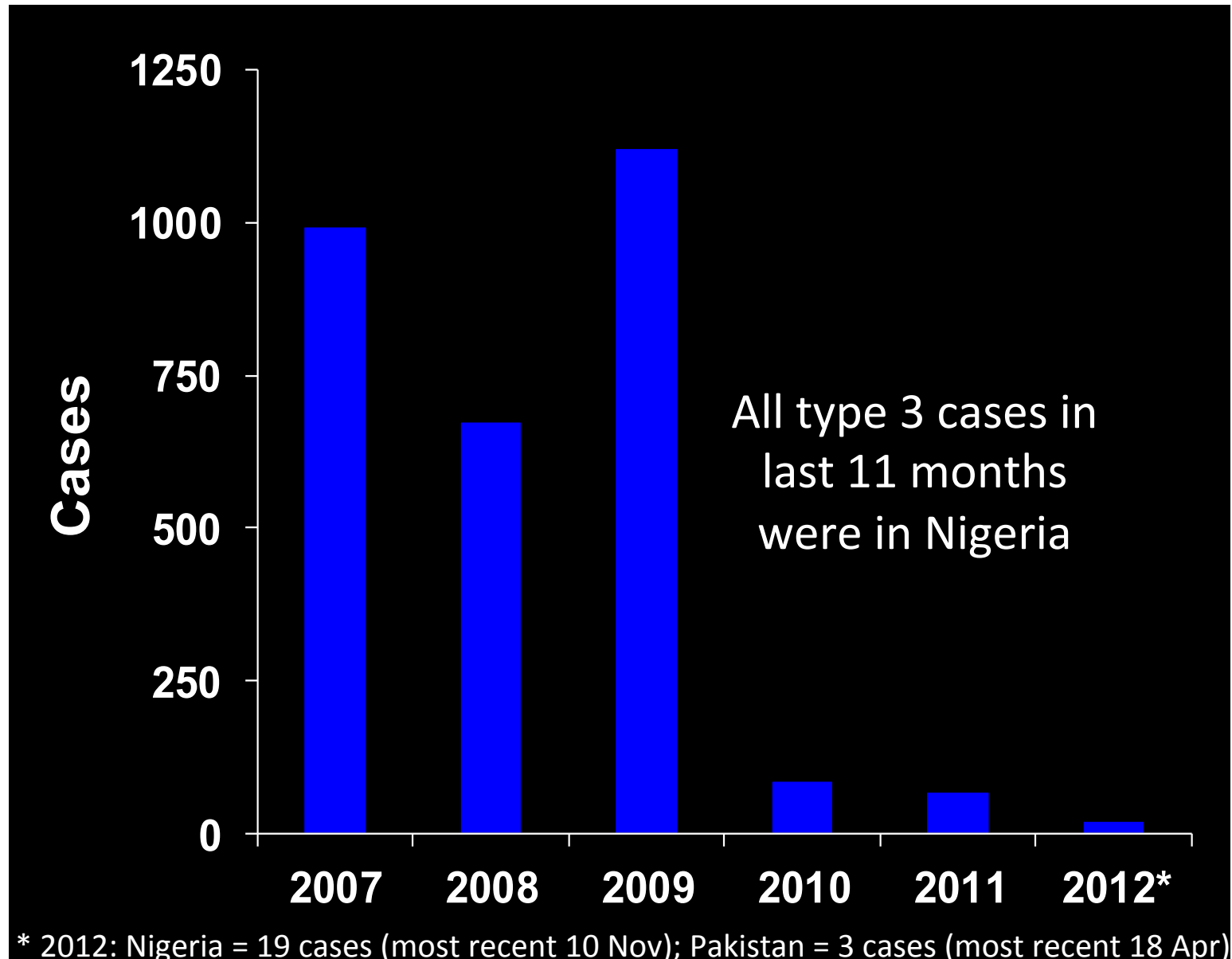
# WPV cases last 6 months



# WPV cases to date 2012 vs. 2013



# Polio, WPV type 3 cases

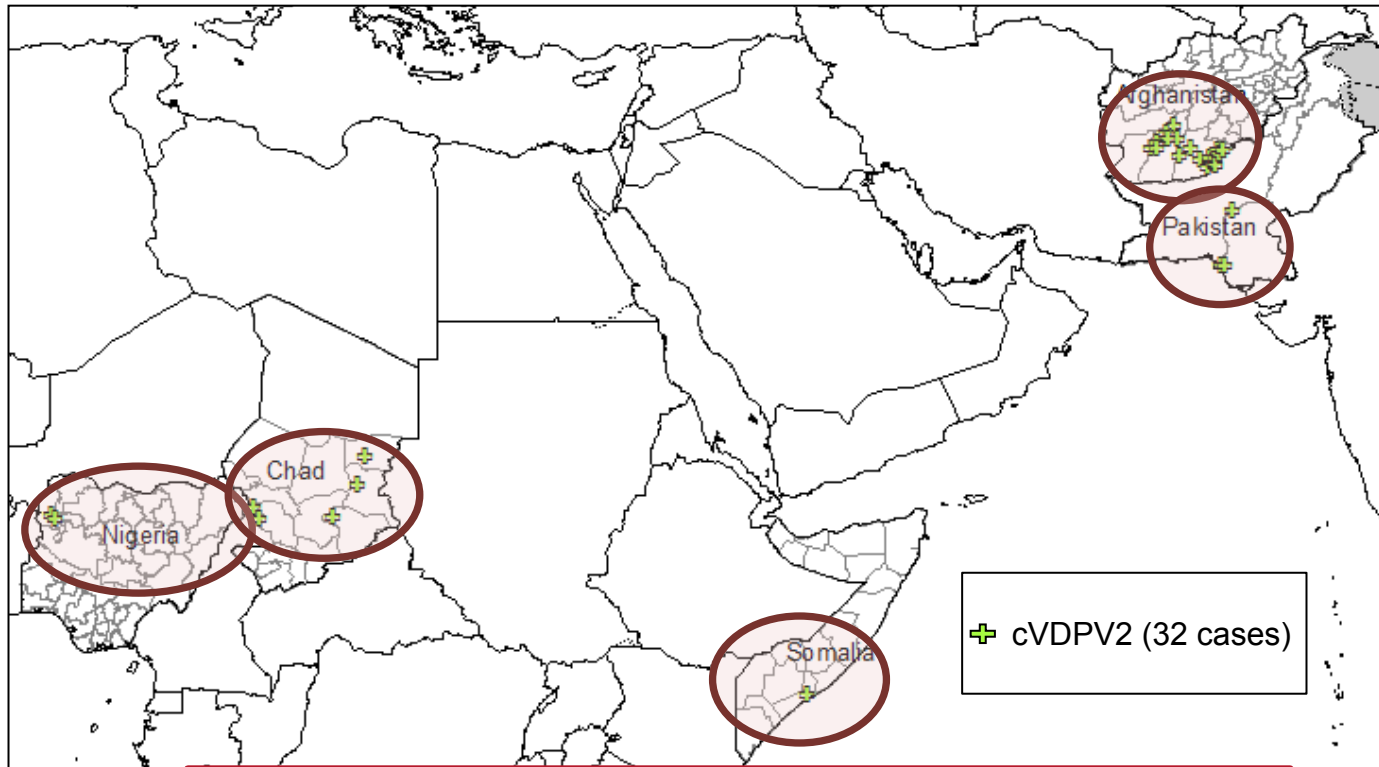


# WPV Re-established & Re-infected Countries

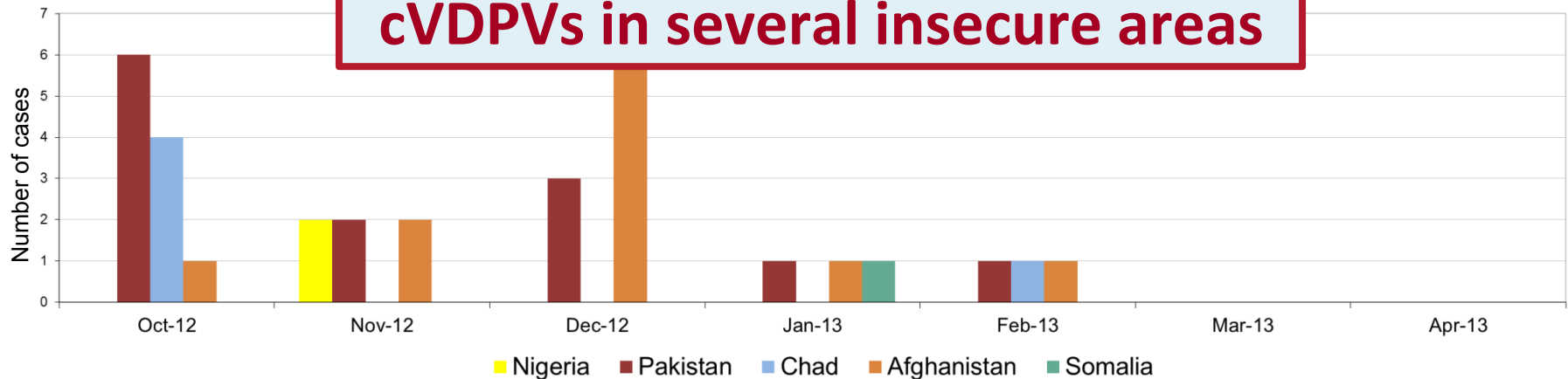
- Angola: 'off the list' – last case July, 2011
  - DRC: 'off the list' – last case December, 2011
  - Chad: most recent case June 2012
- 
- Niger: Single WPV1 importation related case – November 2012
  - Egypt: WPV1 (Pak) detected in Env. samples in December 2012 – subsequent samples negative

# Circulating Vaccine-Derived Poliovirus (cVDPV)

# Circulating Vaccine-derived Poliovirus, Previous 6 Months\*



## cVDPVs in several insecure areas



\*03 Oct 2012 – 02 Apr 2013



# Stopping cVDPV

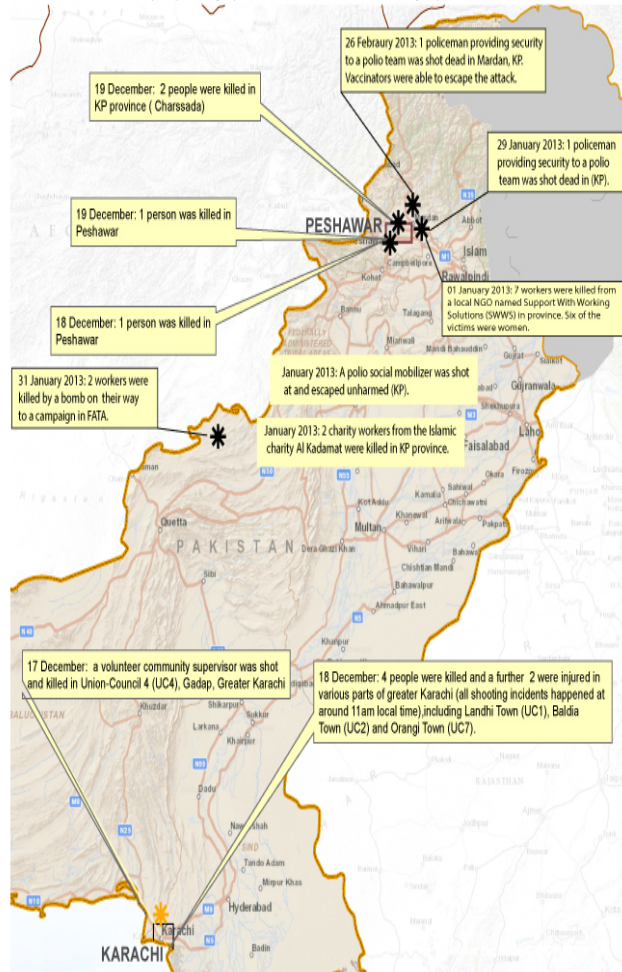
- All cVDPV in previous 6 months are type 2
- Chad:
  - lingering cVDPV of concern
  - TAG: Additional SIAs, improve RI & quality of SIAs
- Somalia: Access improving, challenges remain
- Afghanistan, Pakistan and Nigeria:
  - WPV interruption given priority in low season
  - More aggressive tOPV campaigns in Q3 & Q4, 2013

# Interrupting Poliovirus Transmission in Insecure Areas

# Attacks on health workers

## SUMMARY MAP: SECURITY INCIDENTS OF POLIO / HEALTH WORKERS IN PAKISTAN

Global Polio Eradication Initiative (GPEI) Shooting of polio/health workers in Pakistan – summary map



Map Scale (A3): 1:321,429

1 cm = 3 km

Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree

Data Source:

Admin. Boundaries: World Health Organization  
Base Map: ESRI/BING  
Map Production: Public Health Information  
and Geographic Information Systems (GIS)  
World Health Organization

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8 February 2013 Last updated at 11:47 GMT

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## Nigeria polio vaccinators shot dead in Kano

Nine female polio vaccinators have been killed in two shootings at health centres in northern Nigeria, police have told the BBC.

In the first attack in Kano the polio vaccinators were shot dead by gunmen who drove up on a motor tricycle.

Thirty minutes later gunmen targeted a clinic outside Kano city as the vaccinators prepared to start work.



Nigeria is one of only three countries where polio is still endemic.

The New York Times

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OPINION

## Gunmen in Pakistan Kill Women Who Were Giving Children Polio Vaccines



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

# Adverse Impact of Insecurity on SIAs

- Security and motivation of health workers
- Coverage and quality
- Loss of ability to monitor and conduct LQAS
- Fluid implementation
- Inaccessible areas

# Understanding and Managing Security Threats

- Each country and each area has unique political and social determinants of insecurity
- Three major types of insecurity:
  - Armed conflict between warring parties
  - Attacks by militant insurgents
  - Criminal violence
- Contributing factors:
  - Specific political issues - drone attacks, intel ruse
  - Misinformation around polio vaccine
  - Local disputes

# Specific Determinants of Insecurity for Polio

	Nigeria	Pakistan	Afghanistan	Somalia
Warring parties	<u>+</u>	++	+++	++++
Targeted Attacks	+++	++++	+	<u>+</u>
Criminal Violence	++	+	++	+
Political Issues	<u>+</u>	++++	+	+
OPV concerns	++++	++	-	-
Local Disputes	-	+	++++	++

# Security Management Principles

- Security management is largely local
- Government commitment essential
- Local authorities key to ensuring security
- Support of local community is crucial
- Program neutrality important
- Review and update strategies every 6 months

# Strategic Framework for Managing Security

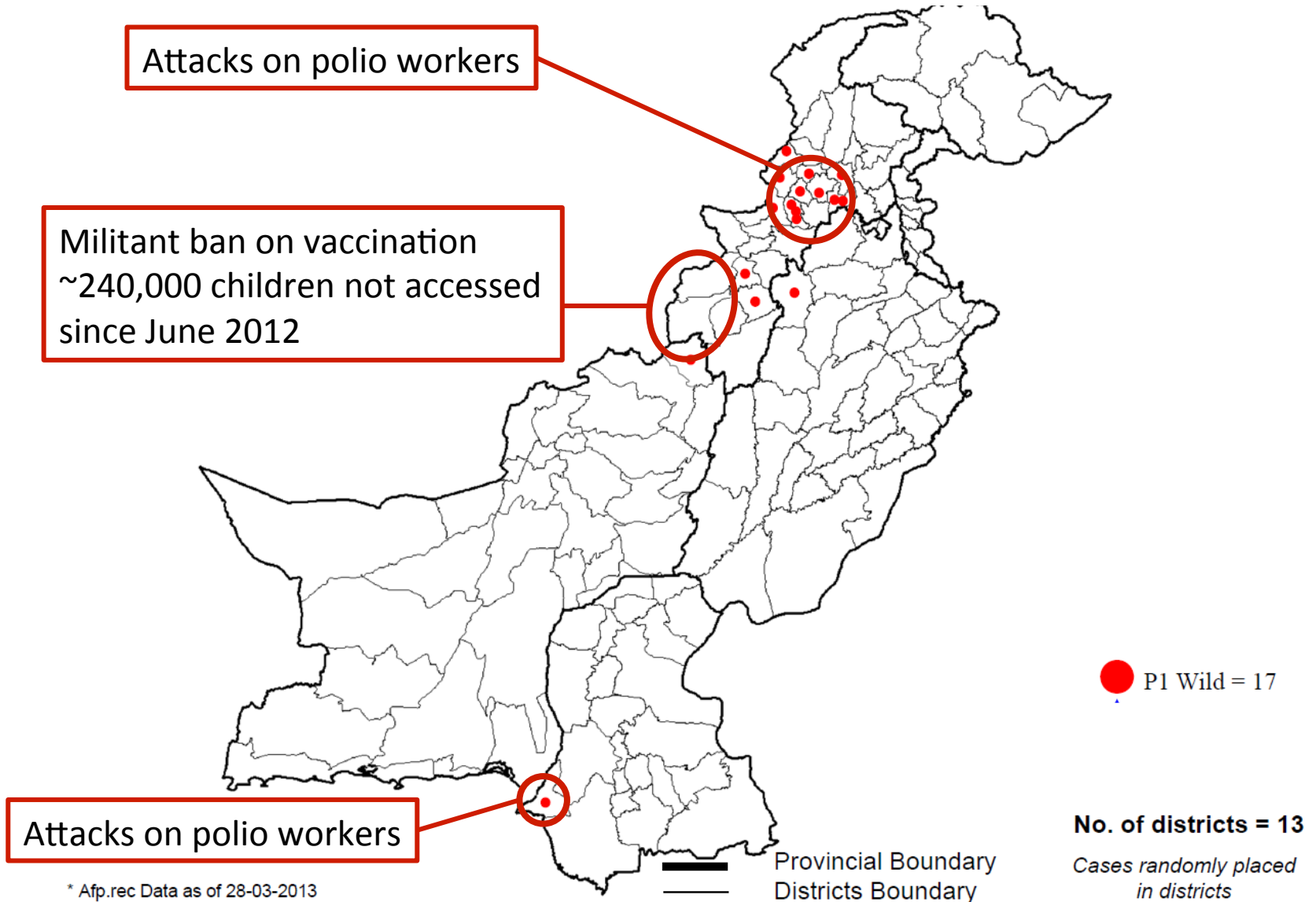
- Security coordination committees
  - Ongoing analysis and local threat assessment
  - Disaggregation and mapping of epidemiologic and security risks
  - Integrated security and Ops planning
- Operational adjustments in SIAs
  - Speed, phasing
  - fixed vs H-H
  - low profile, tailored communications, local staff
  - Short interval dosing



# Strategic Framework for Managing Security - 2

- Community engagement
  - Soc mob, community leaders, local imams
  - PolioPlus, Routine Immunization, fast track services
- Engagement of Islamic religious leadership
  - Islamic Advisory Group initiative
  - leadership of Al Azhar and Islamic Fiqh Academy
- Containment measures for inaccessible areas
  - Vaccination of children in transit, firewalling
  - Permanent polio teams
  - Civil-Military cooperation

# Pakistan: WPV Cases in the last 6 mos



# Highest Risk and Insecure Areas Khyber Pakhtunkhwa (KP) Province

- 4 districts
- 145 of 286 Union Councils high threat
- Population <5: 870,000

Pakistan <5 pop: 33m

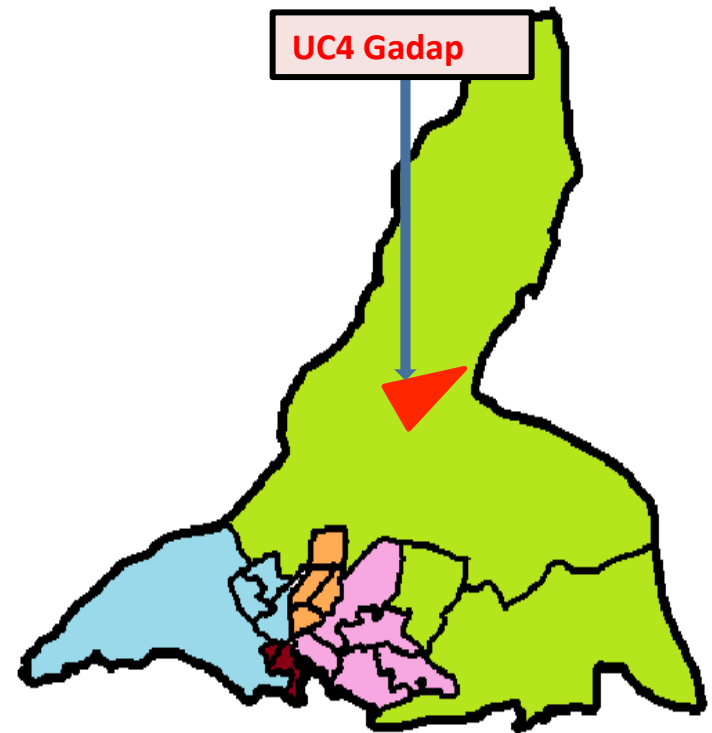


# Polio High Risk Areas - Karachi

- 30 of 188 Union Councils
- Population <5: 500,000

High threat:

- UC 4 Gadap
- 60,000 children

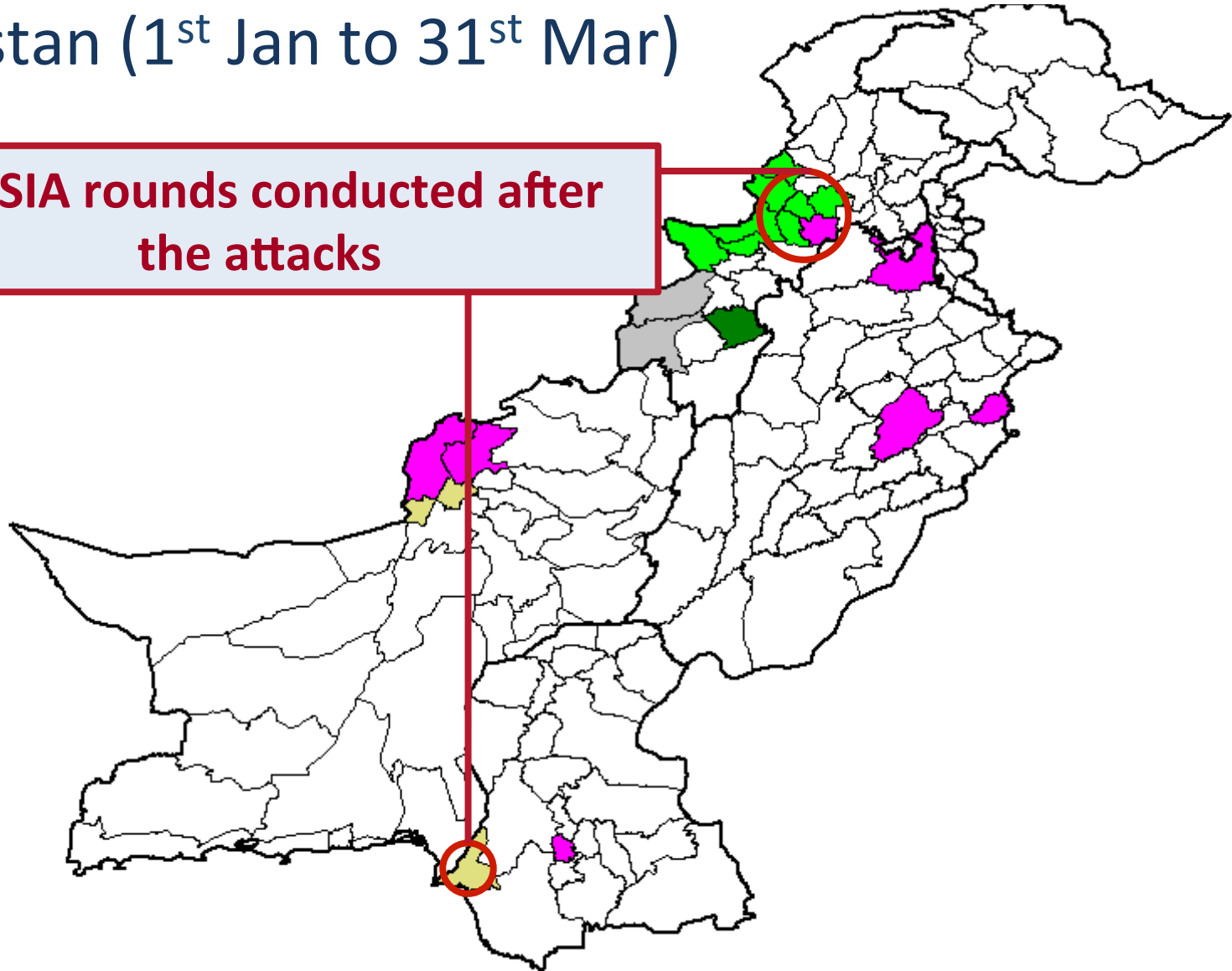


**18 Karachi Towns**

Total <5 pop: 2.2 m

# No. of SIAs conducted in 2013 – Priority 1 areas Pakistan (1<sup>st</sup> Jan to 31<sup>st</sup> Mar)

**3-5 SIA rounds conducted after  
the attacks**

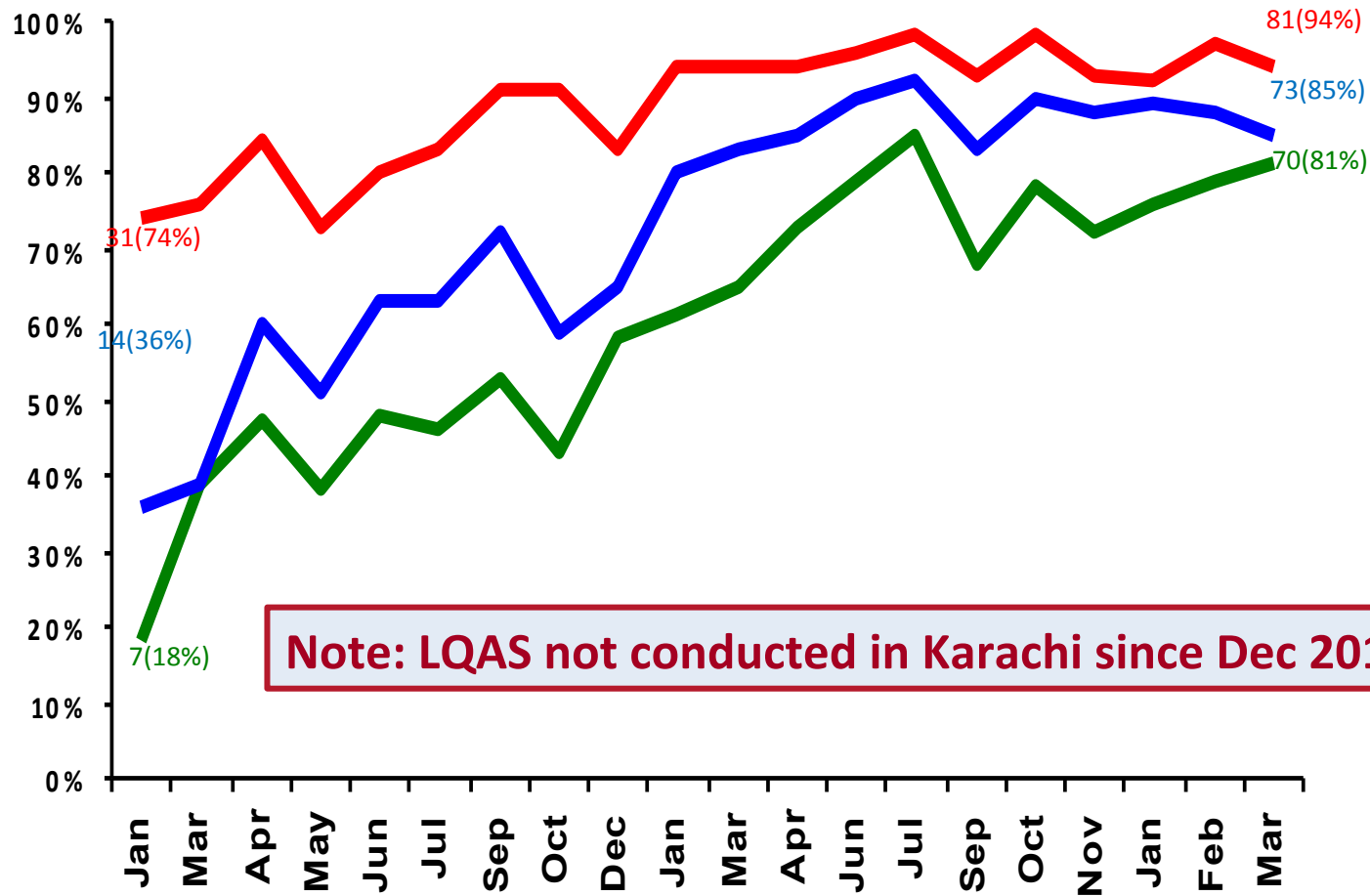


0 round   1 round   2 rounds   3 rounds   4 rounds   5 rounds   6 rounds

Note: Analysis includes the districts covered during case responses

# Trend of lots not rejected in LQAS, Pakistan

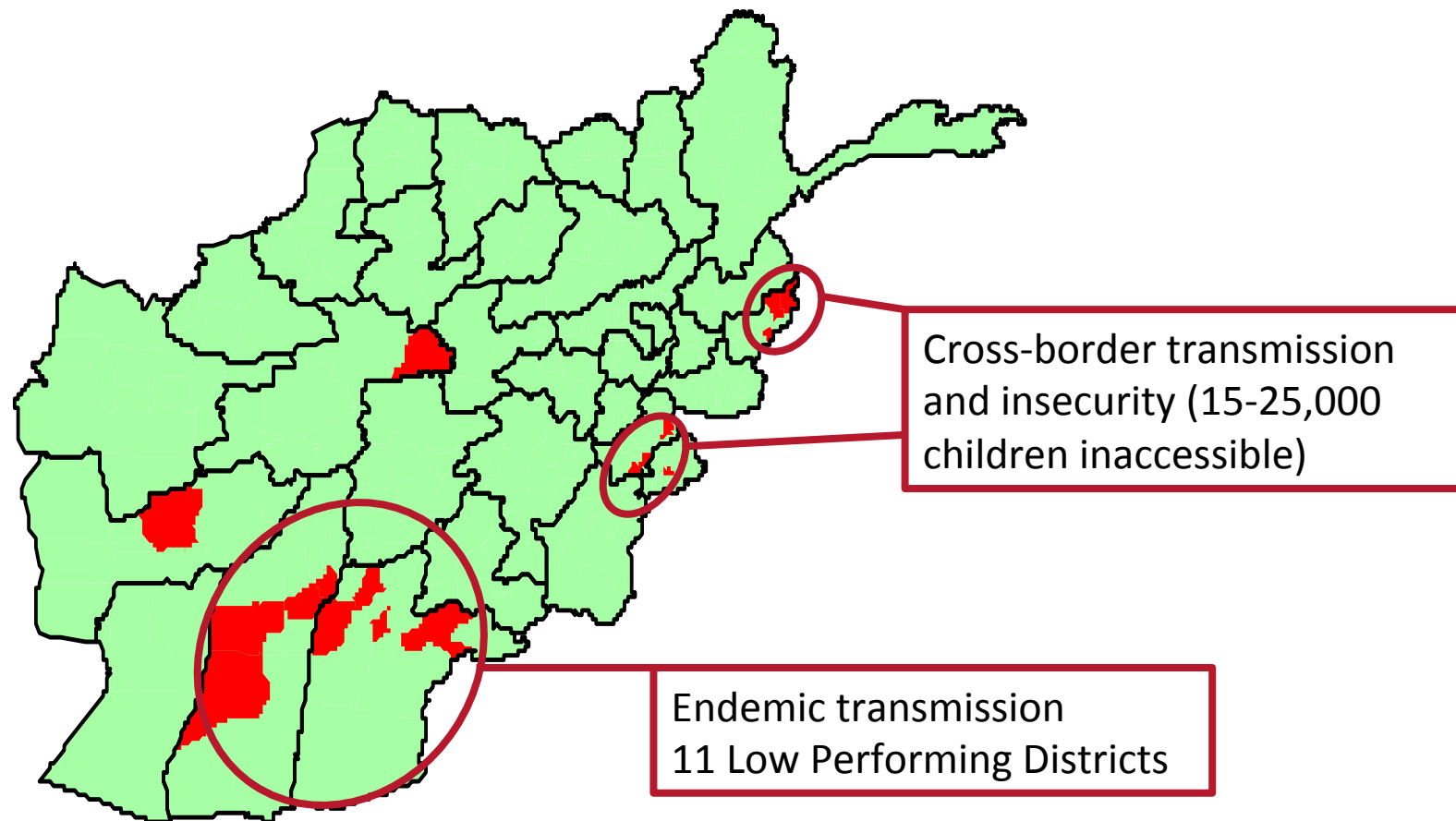
## *Jan 2011 to Mar 2013 \**



**Note: LQAS not conducted in Karachi since Dec 2012**

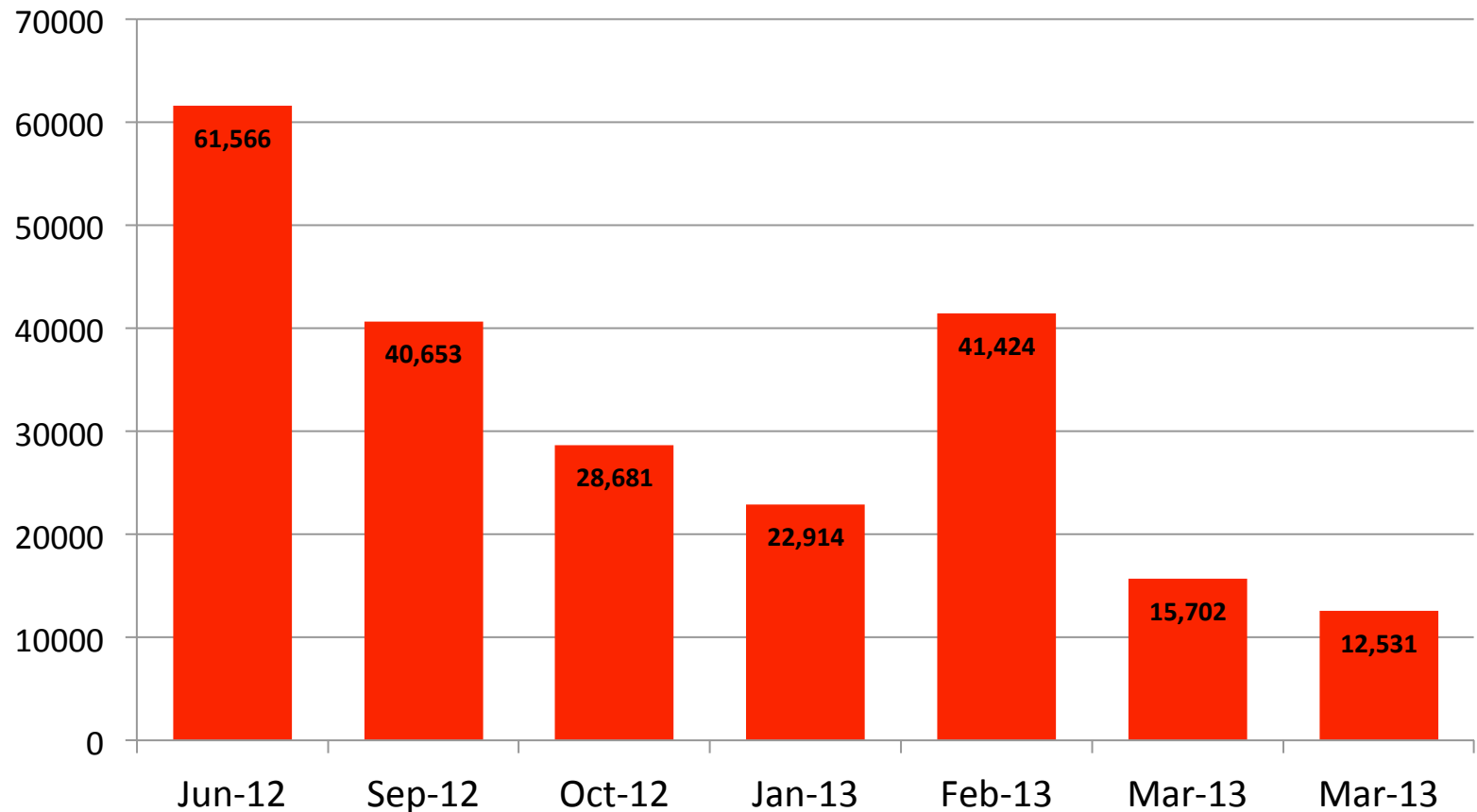
— Not Rejected at 95% — Not Rejected at 90% — Not Rejected at 80%

# Polio Eradication: Epidemiological & Security Risks Afghanistan 2012-13



# Inaccessible Children in 11 Low Performing Districts

## Kandahar & Helmand June 12 – March 13

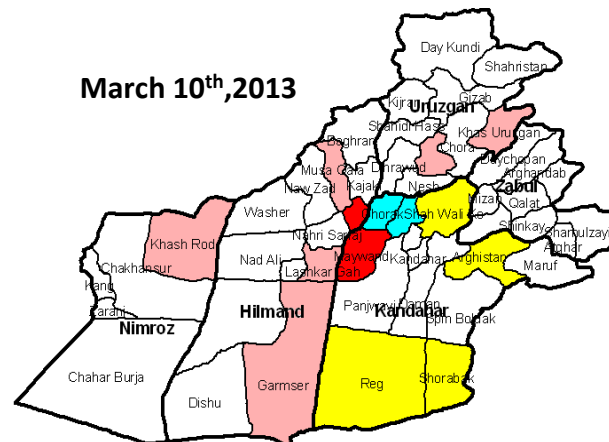
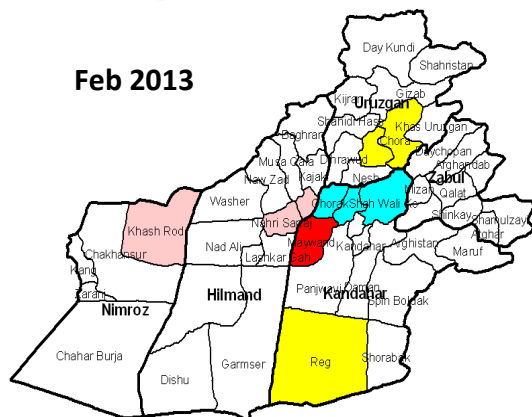
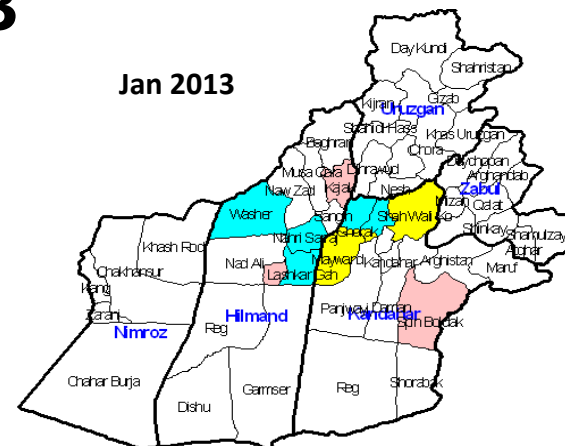
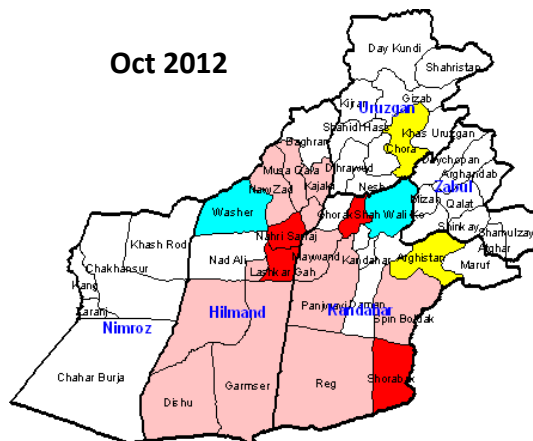
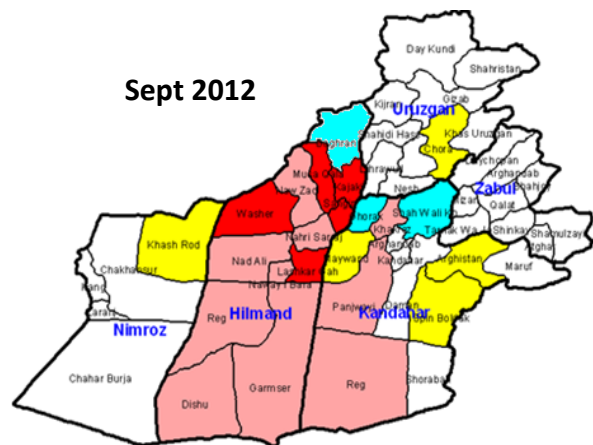


Inaccessibility and poor performance in three districts related to disagreement on staff selection between AGE and government plus gaps in management



# Mapping Inaccessibility in Southern Region Afghanistan

## Sept 2012-Mar 2013



Campaigns	Total Inaccessible children	On going fight	AGE not supportive	Perception of fear	Management issues
NIDs Sep 2012	59,372	15,059	16,500	8,038	19,775
NIDs Oct 2012	44,198	6,364	20,139	11,203	6,492
SNIDs Jan 2013	37,267	356	8,132	1,702	27,077
SNIDs Feb 2013	51,850	194	2,970	581	48,105
NIDs Mar 10-12, 2013	17,138	708	7,606	1,800	7,024

# LGAs in High Risk States with inaccessible children during SIAs due to insecurity, Q4 2012-Q1 2013

Q4 2012



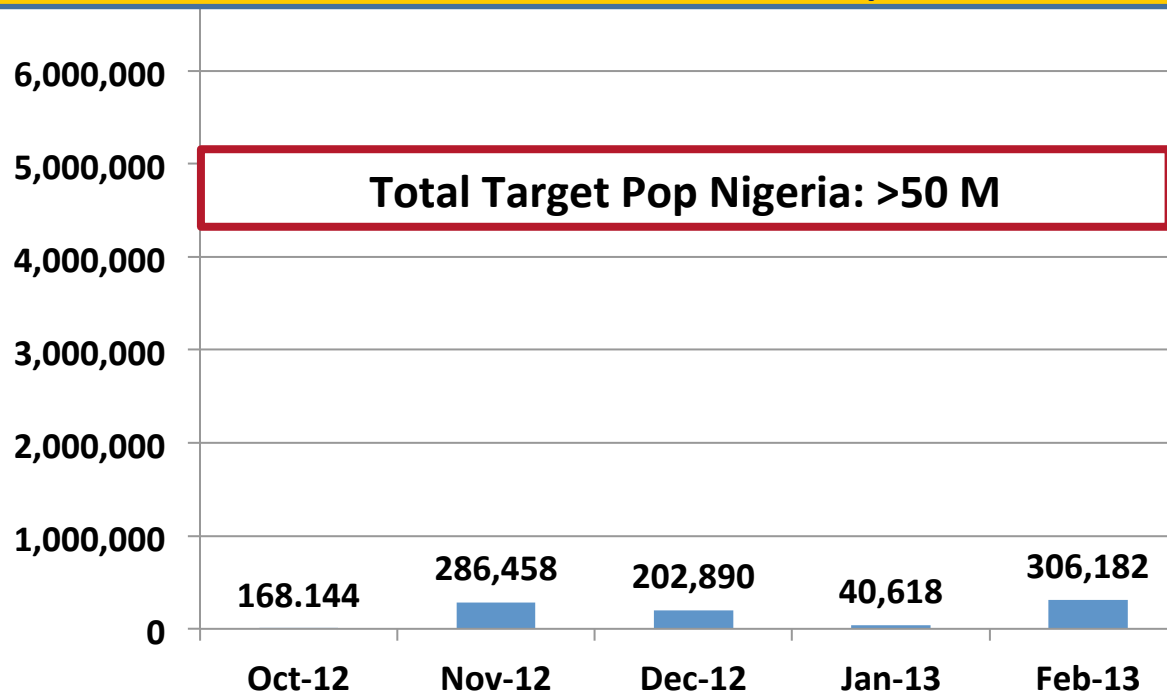
Q1 2013



**4-8 of 107 VHR LGAs with inaccessible pops during SIAs from Oct 2012 to Feb 2013**

# Number of children (0-59 mo) inaccessible in High Risk States during SIAs due to insecurity, Q4 2012-Q1 2013

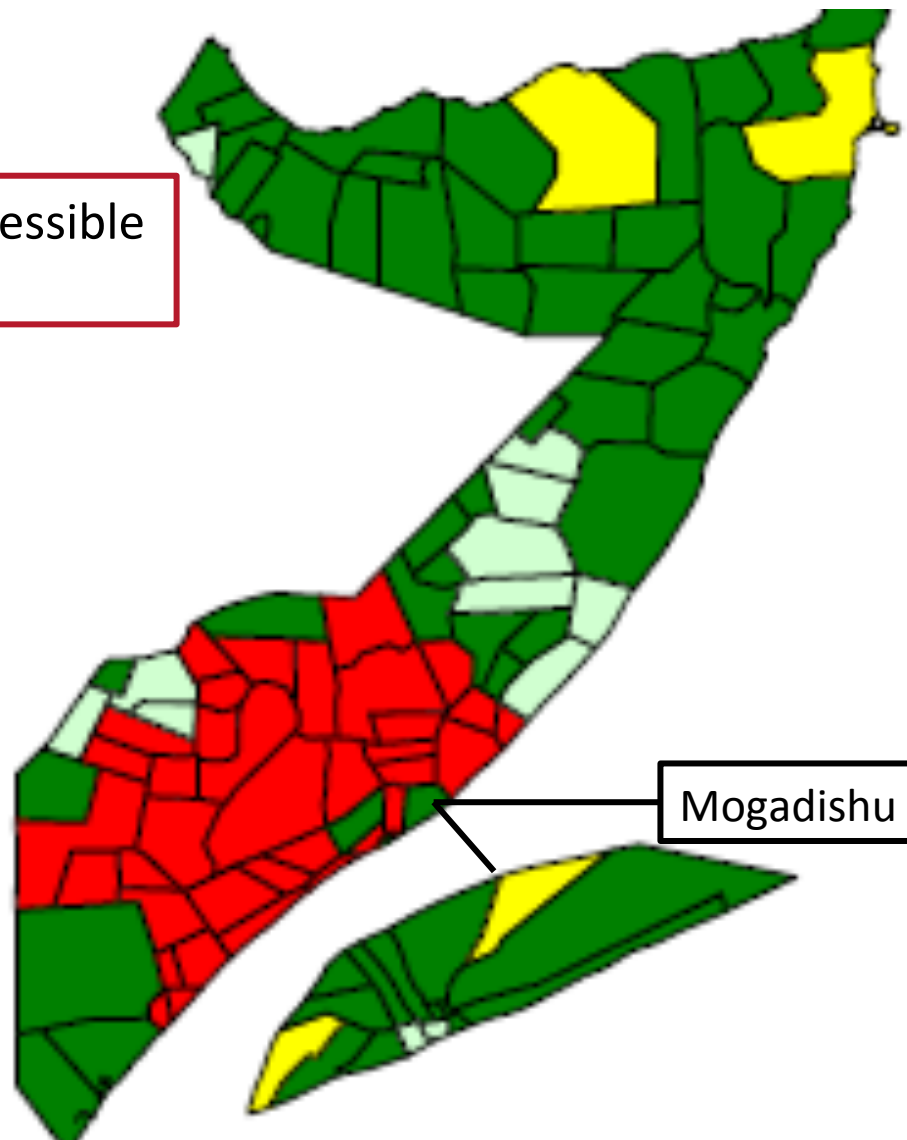
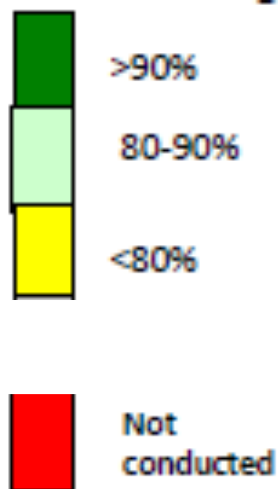
- Sharp increase in March 2013 was due to state-wide cancellation of the March SIAs in Borno and Kano following killing of polio vaccinators in the 2 states in Feb 2013
- SIAs will resume in Kano and Borno next week – 13 April



# NID Coverage and Inaccessible Areas, Somalia

## January 2013

380,000 of 1M target children accessible  
in South-Central Zone



# Summary

- Recent security incidents a new reality and risk
- Strong responses from governments (PAK, NIE)
- SIAs conducted in areas of attack in Pakistan and will resume in all targeted areas of Nigeria in April
- GPEI priorities:
  - health worker and staff safety
  - minimize impact on SIA quality
  - restore ability to monitor
  - tailored application of strategic framework
- Somalia – inaccessibility is a continuing risk

# **Extra-ordinary contingencies beyond 2014**

- IHR travel recommendations
- Extraordinary investments in negotiations and to incentivize days of tranquility
- Mass vaccination of expanded age groups with IPV using jet injectors
- Militarization of final campaigns

# Questions for SAGE

- Are there any significant gaps in the program's strategic approach to manage security threats in Pakistan, Nigeria, Afghanistan and Somalia?
- How should the program ensure that stopping cVDPVs is pursued with the same urgency as interrupting WPV?