Deliberations of the IEAG

28-29 May 2008

Questions to the IEAG

- where are we in polio eradication?
- what are the risks to finishing?
- what do we do next to reduce risks?
- what are our contingency plans?

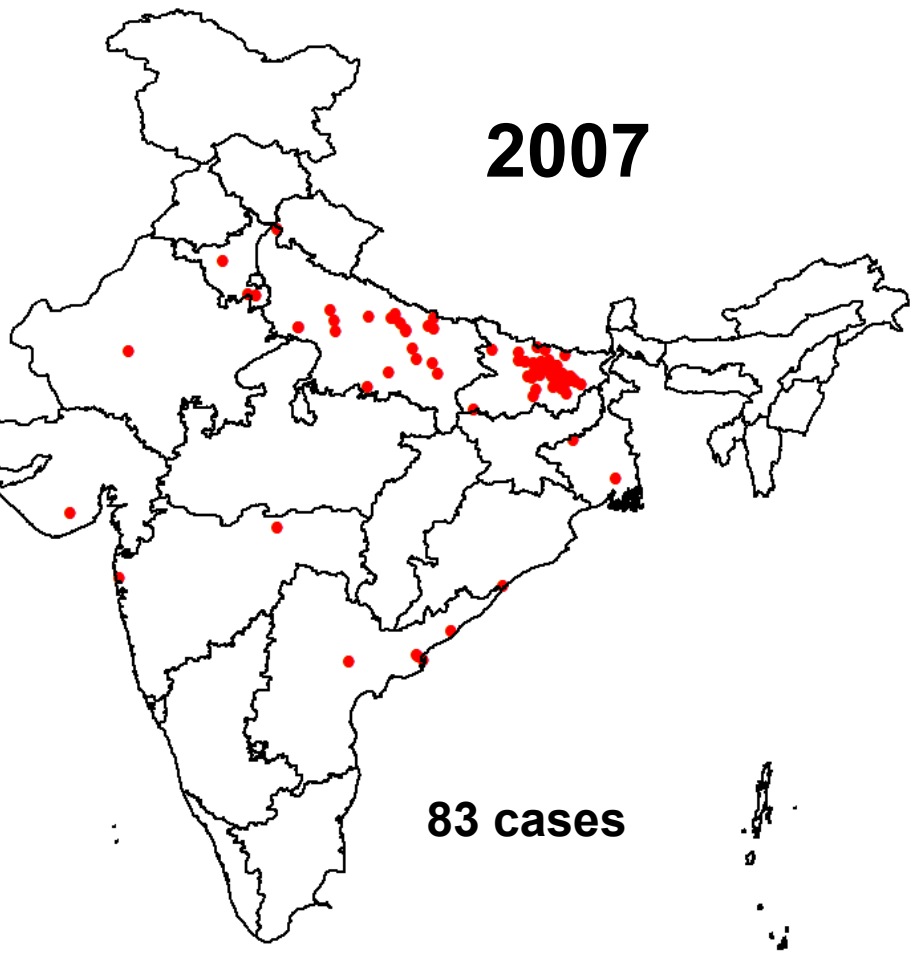
Where are we in polio eradication?

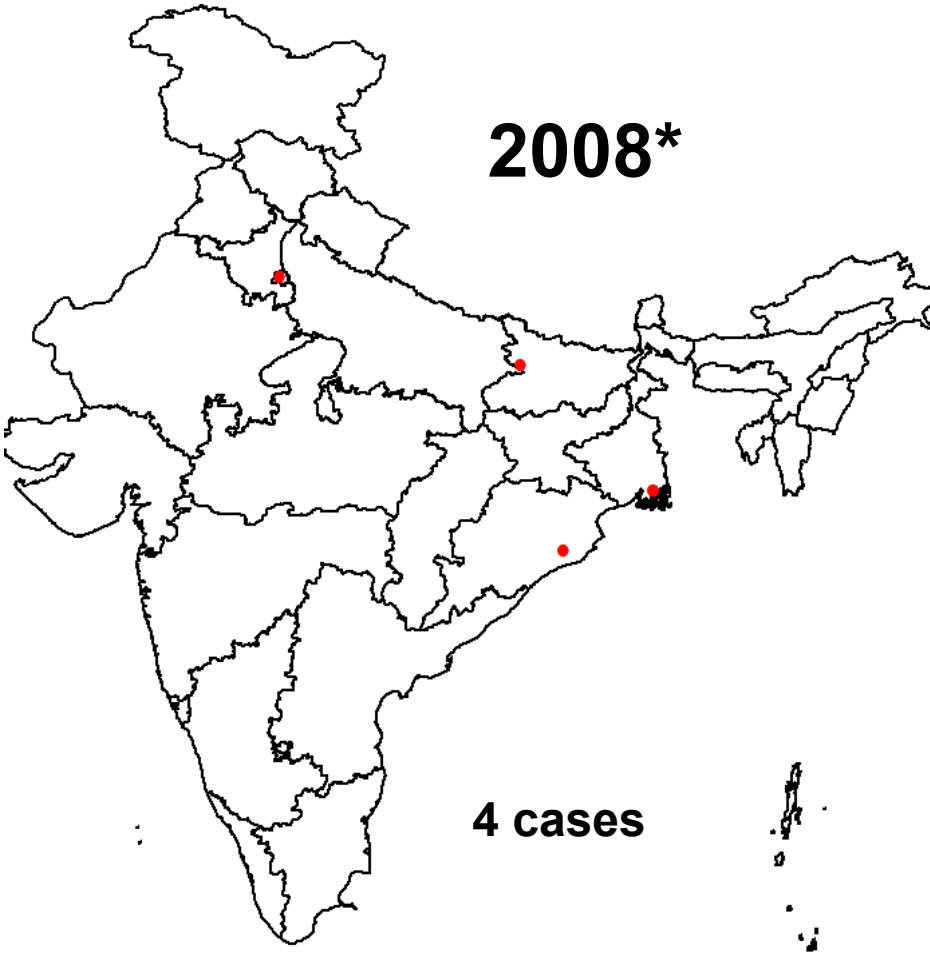
Location of poliovirus by type, 2008*

State	P1	P3	Total
Bihar	1	178	179
Uttar Pradesh	0	53	53
Delhi	1	1	2
Maharashtra	0	2	2
Haryana	0	1	1
Orissa	1	0	1
Rajasthan	0	1	1
West Bengal	1	0	1
Total	4	236	240

a as on 24th May 2008

Lowest ever level of WPV1, India

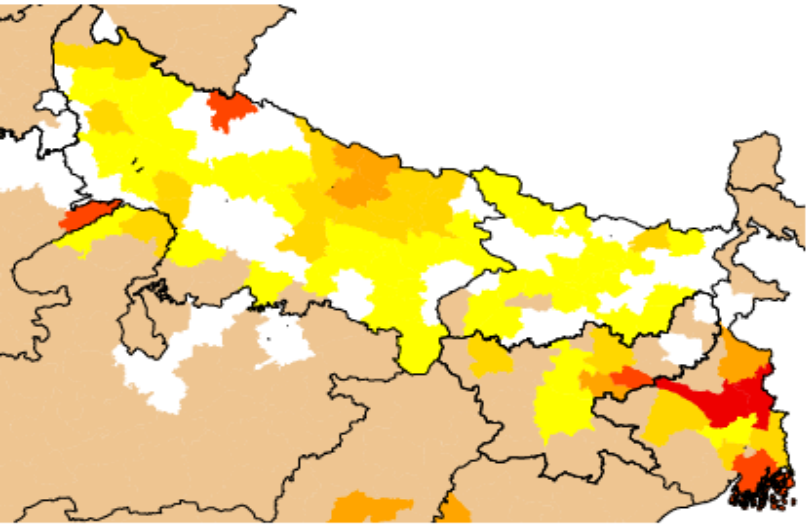




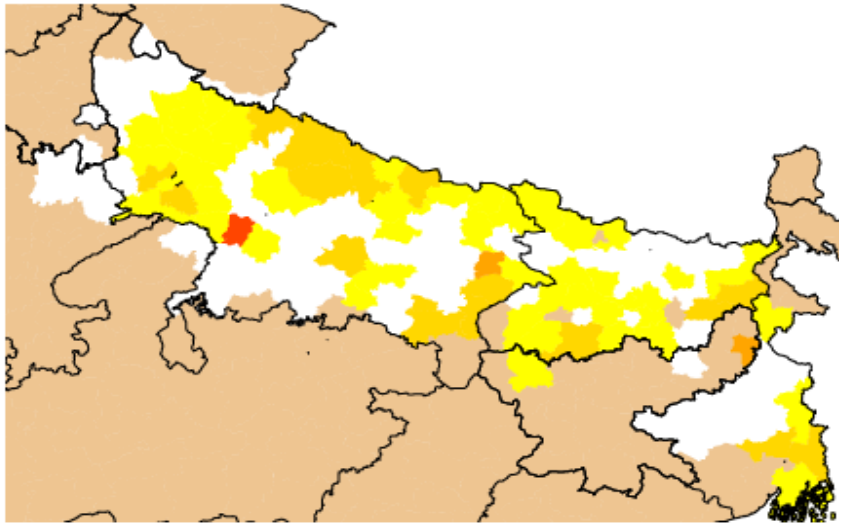
a as on 24th May 2008

Protection against type 1 polio* is at its highest level ever in UP, Bihar

Last quarter 2007



First Quarter 2008



* direct protection by vaccination against type 1 polio among children aged 0-4 yrs UP, Bihar

Type 1 eradication is on track with mini-IEAG deliberations of Dec '08

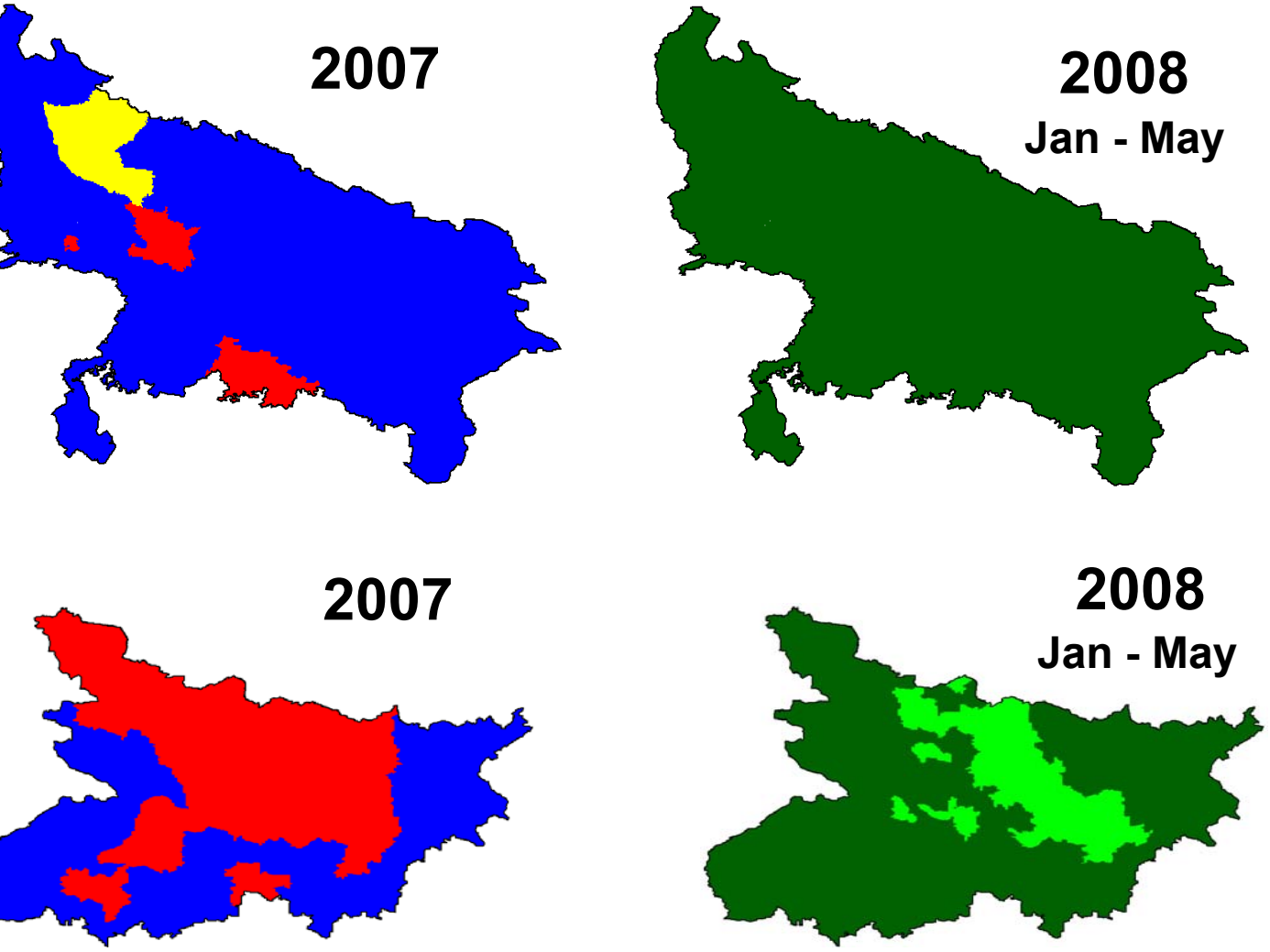
Year	**UP** (south west)	**Bihar** (HR blocks)	**Other** (Mumbai, W Bengal, Delhi, Harayana)
2008	< 5 cases	< 15 cases	< 5 cases
2009	0	0	0

On track

On track

On track

Progress reflects intensive use of mOPV1…



…intensification in highest risk areas such as Kosi river area…

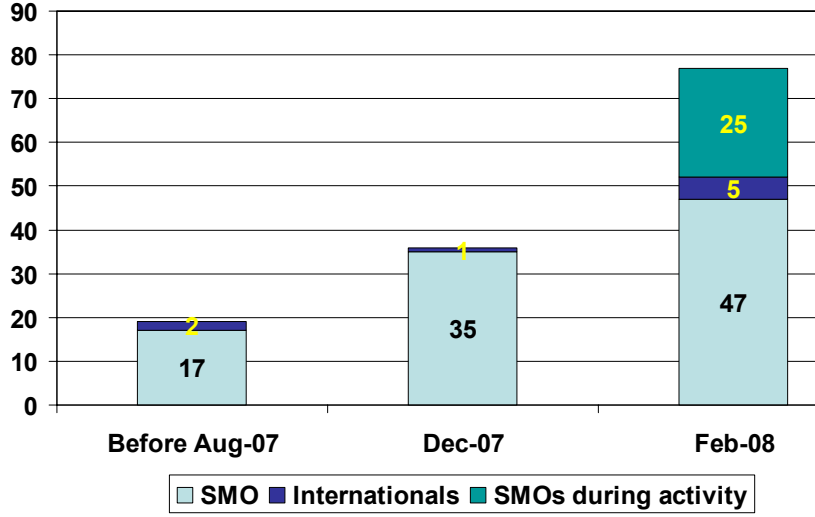
Government of Bihar

- Close monitoring by Bihar Secretary (health)
- 13 State monitors deputed to high risk blocks
- Additional funding for mobility of district officials
- Close supervision of blocks by district & state monitors

UNICEF: increase in community mobilizers to >500

WHO: increased SMOs &FVs

Field volunteers increased from 117 to 164



…and detailed planning to reach the hardest-to-reach areas

Focus on coverage of temporary field huts

Type 3 eradication is lagging behind mini-IEAG deliberations:

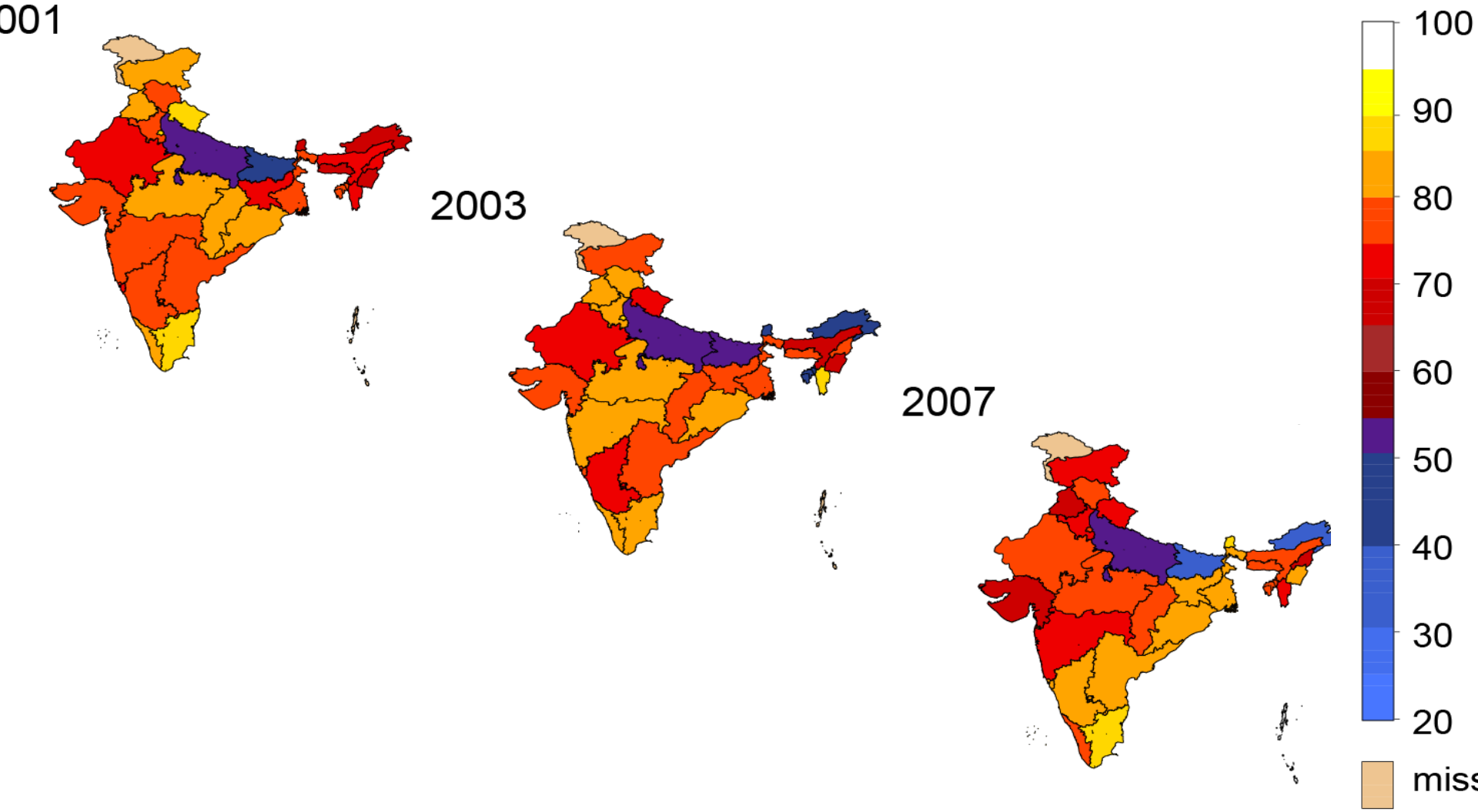
Year	UP	Bihar	Other (Mumbai, W Bengal, Delhi, Harayana)
2008	< 50	< 100	< 25
2009	(Jan-Jun)	(Jan-Jun)	(Jan-Jun)

Slightly behind schedule

Behind schedule

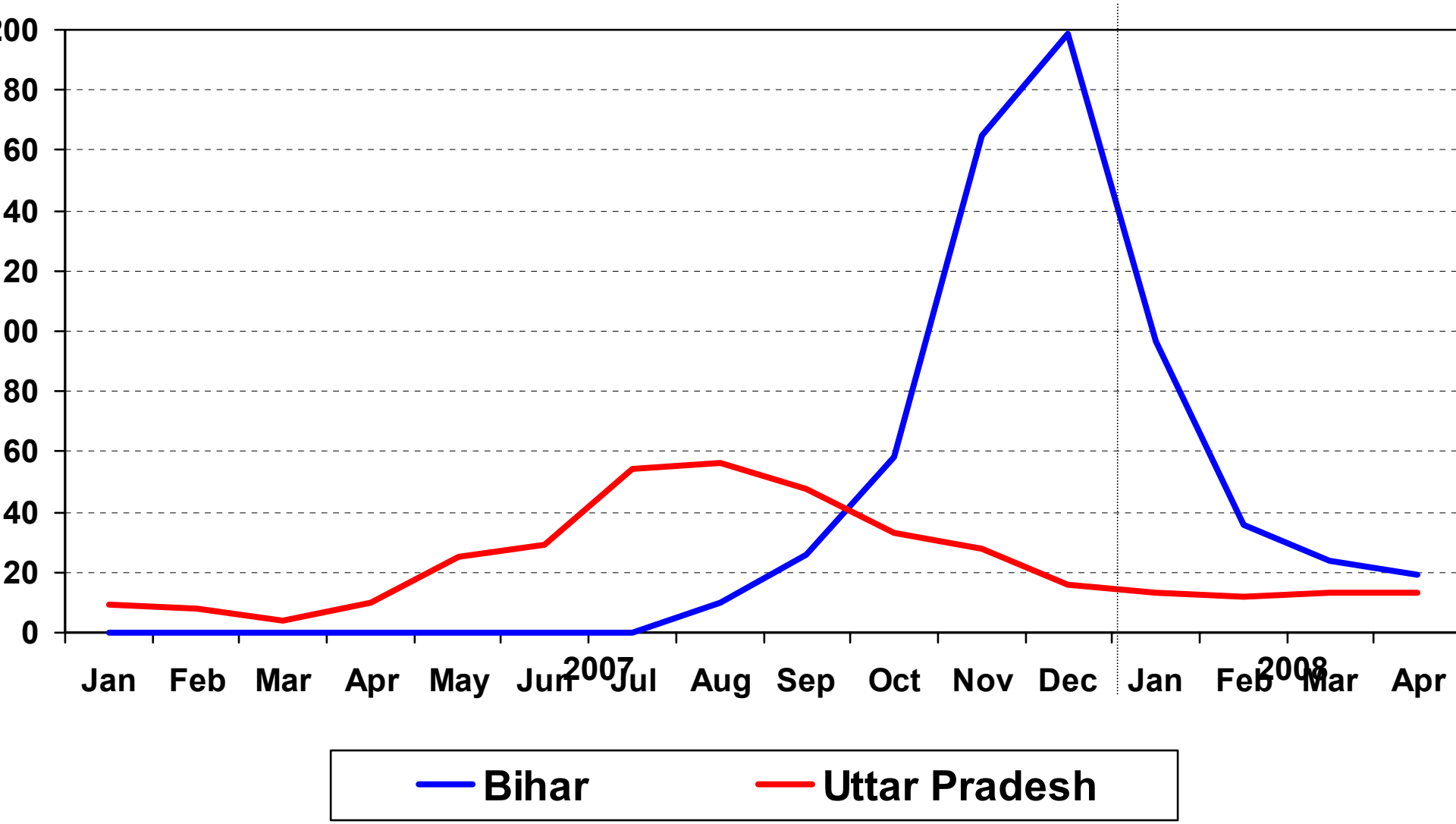
On track

This outbreak reflects the historically low level of type 3 immunity



BUT THE WORST TYPE 3 MAY BE OVER!

WPV3 Polio Cases by month, UP and Bihar, 2007-08



a as on 24th May 2008

IEAG Conclusion 1

Q1 Where are we in polio eradication?

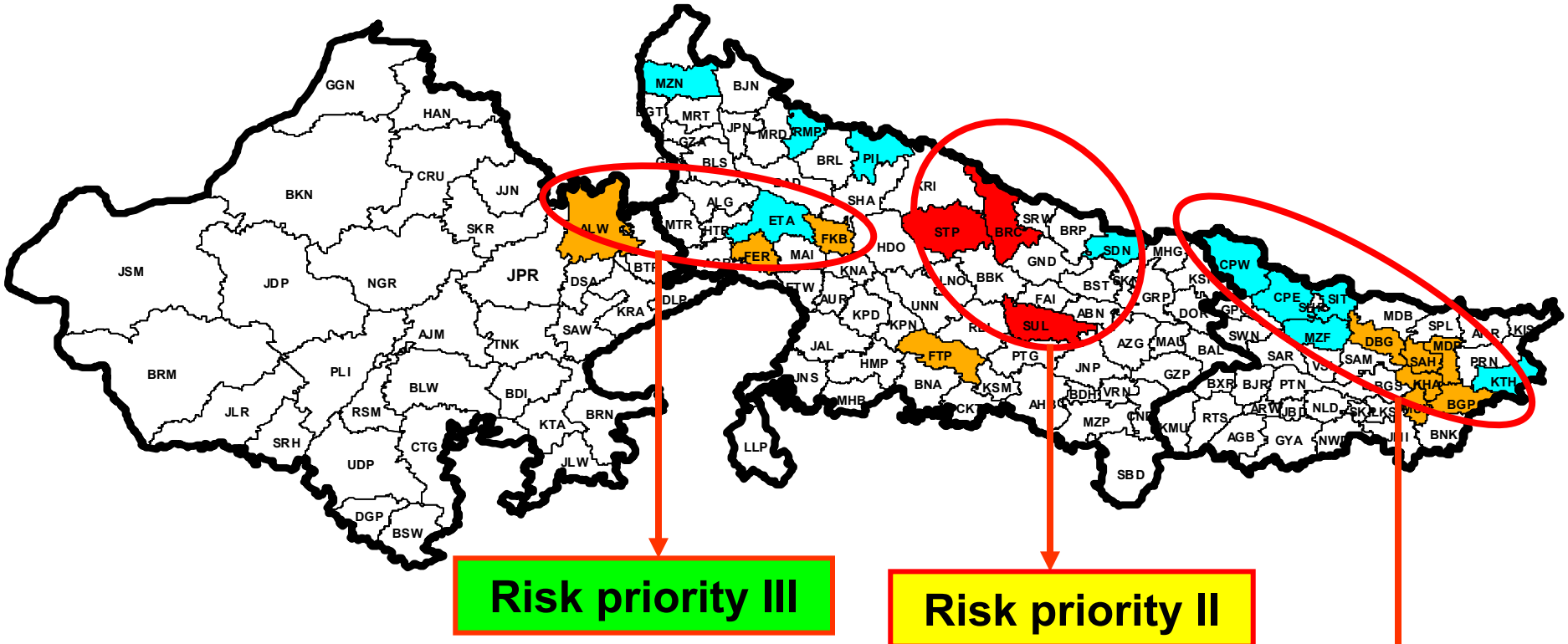
A1 Type 1: on track

Type 3: slightly behind schedule

NOTE: a minimum of 12 months without a virus is needed to consider an area 'polio-free'.

What are the risks to finishing eradication?

Risk of Continued Endemic WPV1 - 2008

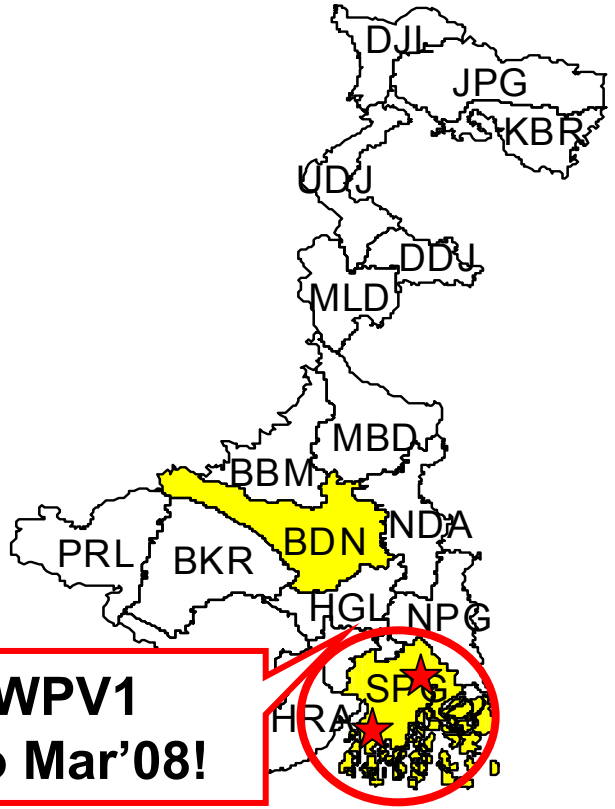


Based on:

- time since most recent confirmed case
- history of orphan strains – 2006-2008
- other indicators of surveillance quality

Risk of Continued Imported WPV1s - 2008

? Risk among migrants

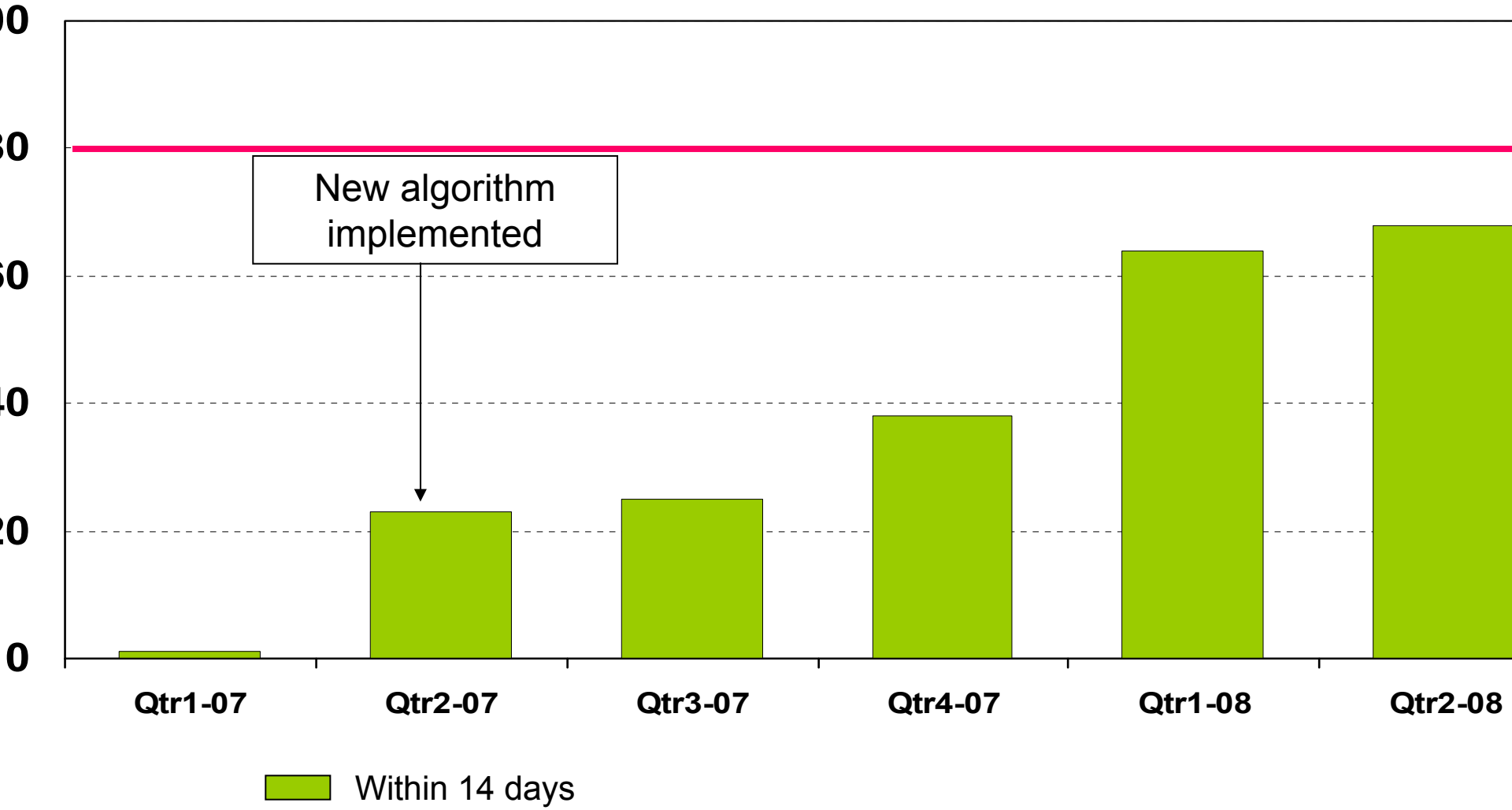


Local WPV1 Nov'07 to Mar'08!

Maharashtra

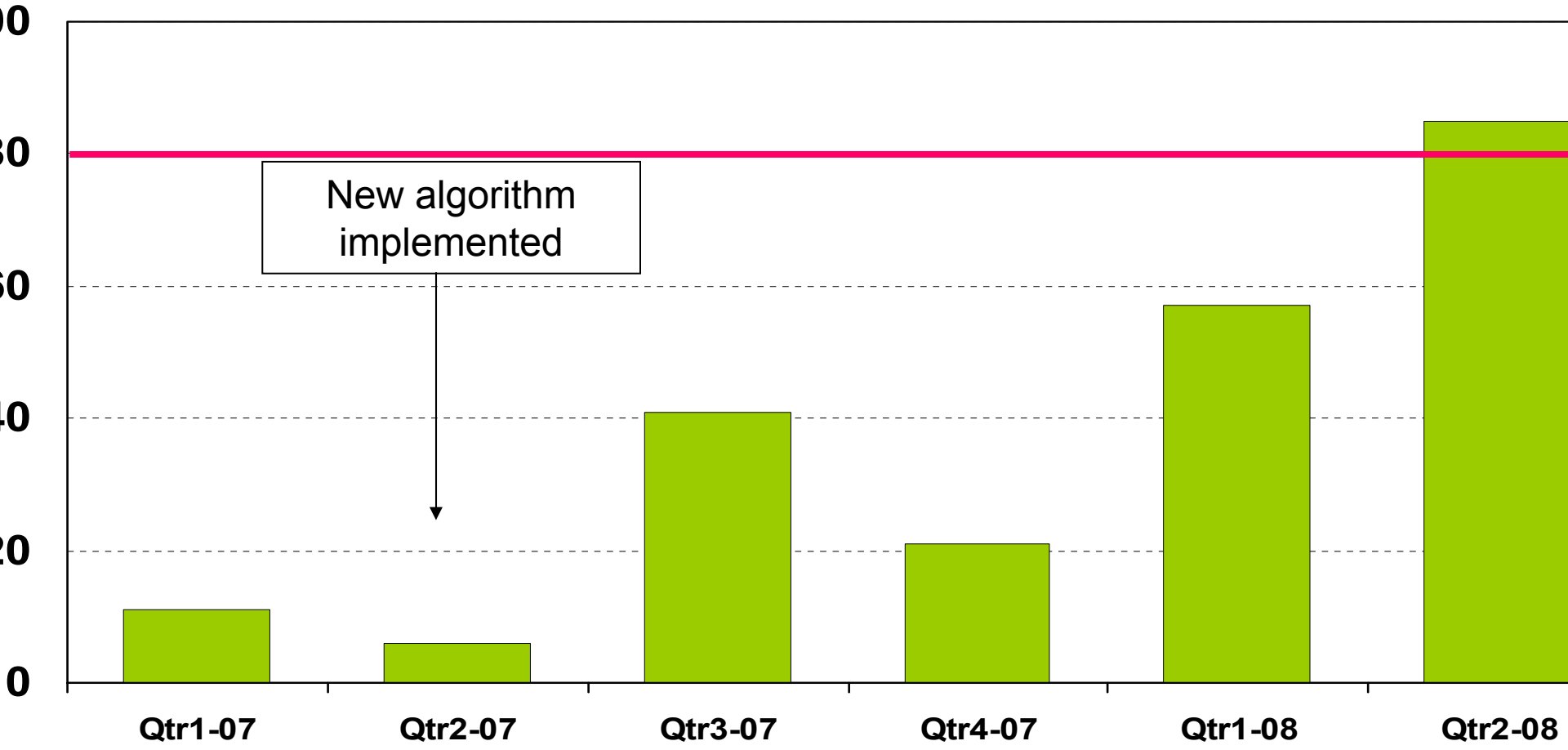
West Bengal

ercent Stool Culture Results Reported within 14 Days of Sampl Receipt in the Laboratory



a as on 24th May, 2008

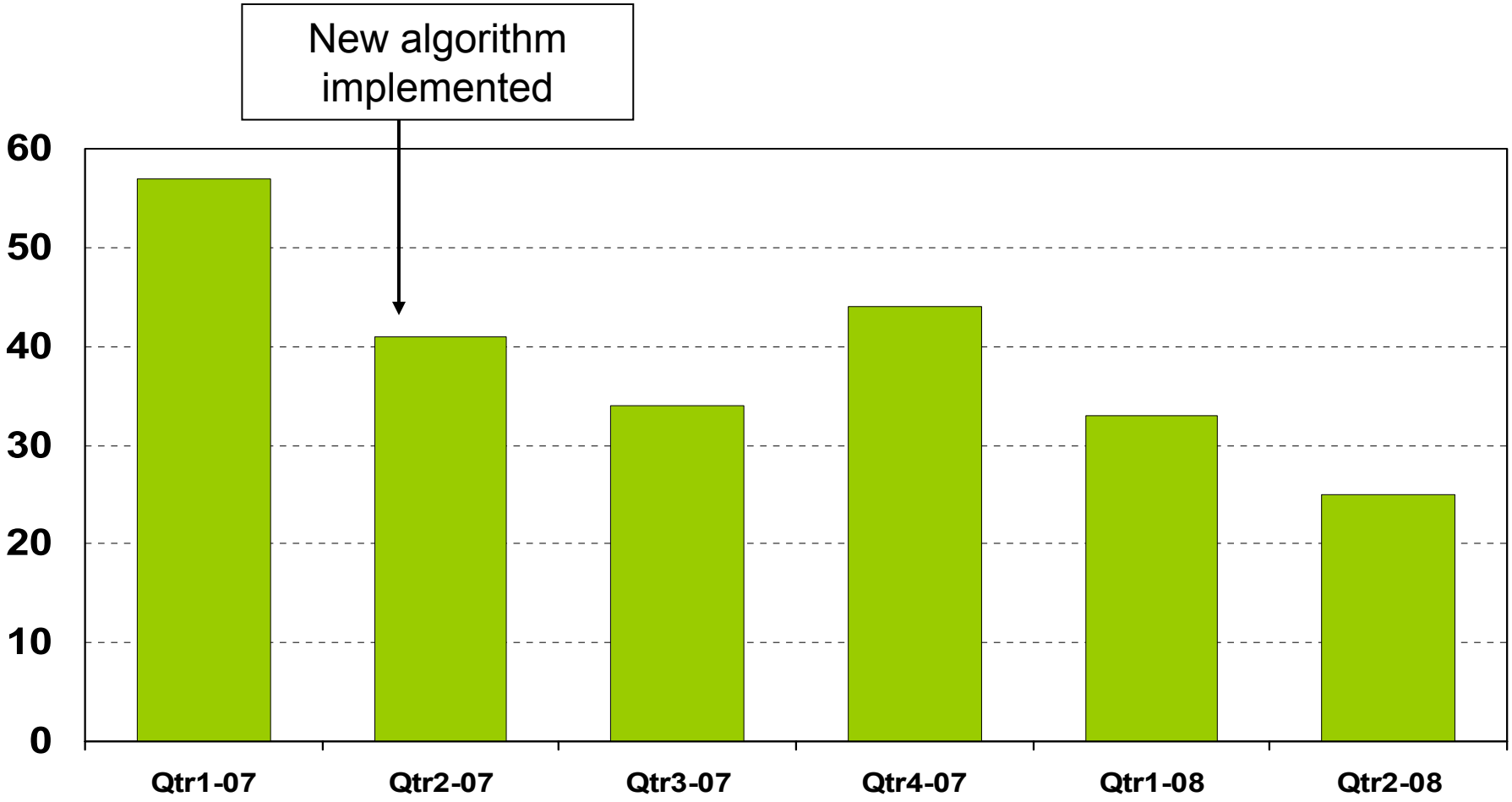
Percent ITD Results Reported within 21 days of Receipt of Samples in Mumbai*, Lucknow, Chennai Laboratories



a as on 24th May, 2008

* Does not include ITD of isolates from National labs that do not perform ITD

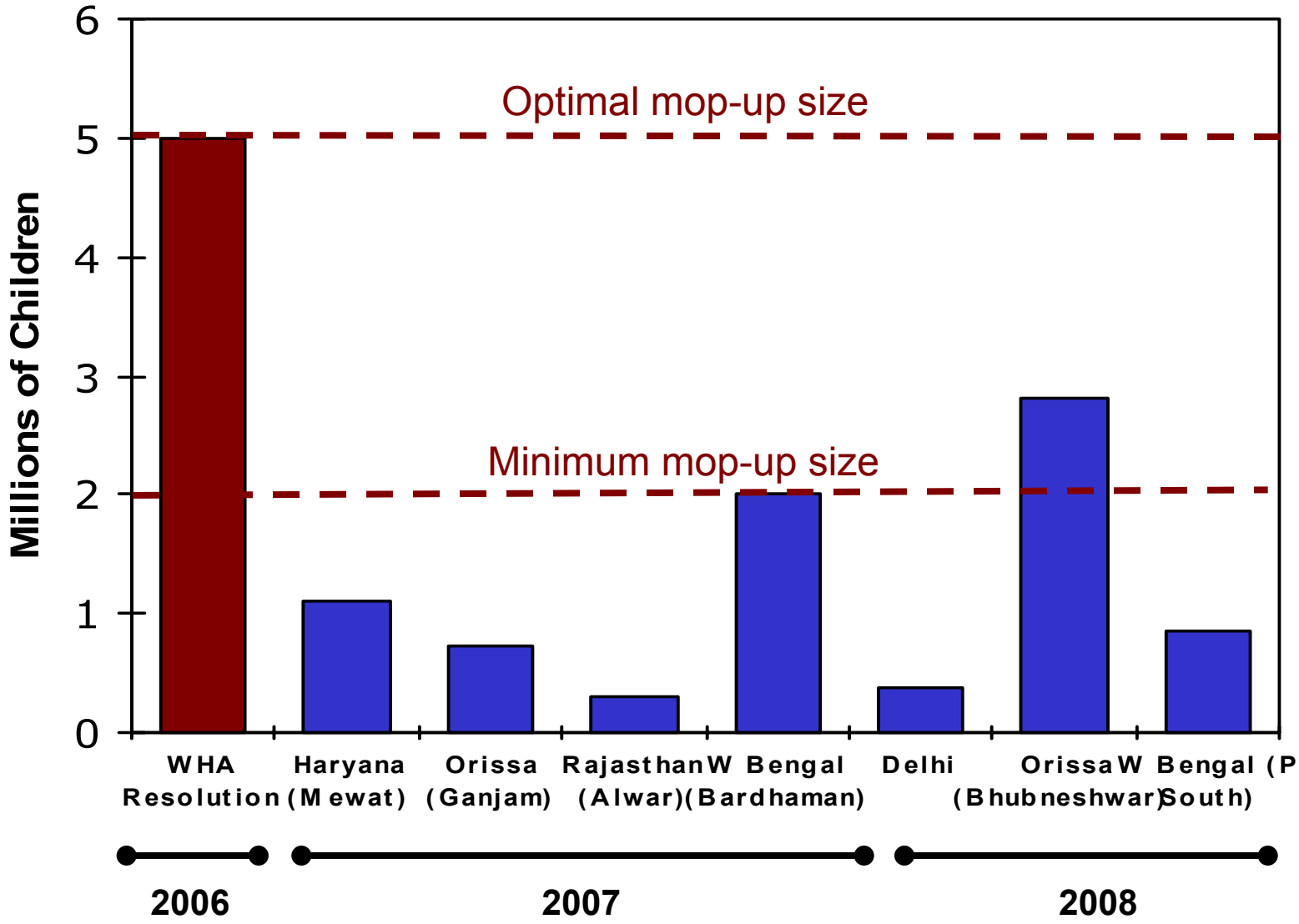
lean Number of days from Paralysis Onset to ITD Resu for Samples with WPV



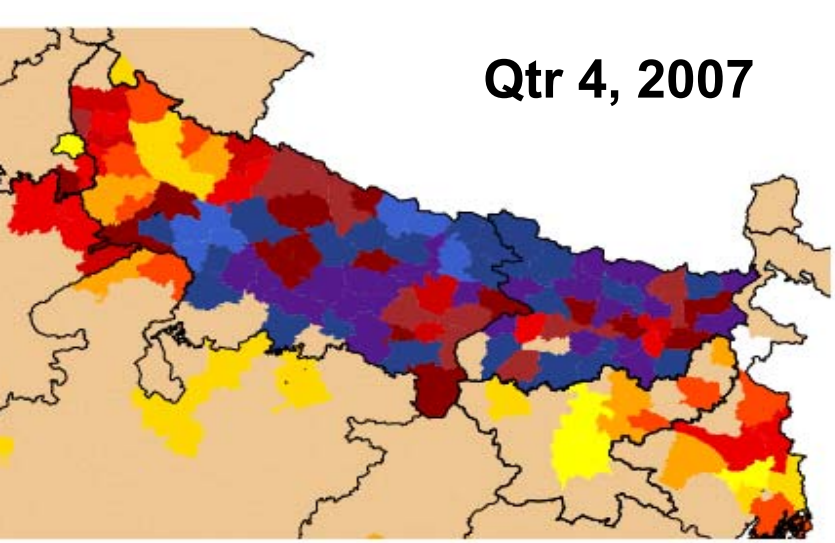
a as on 24th May, 2008

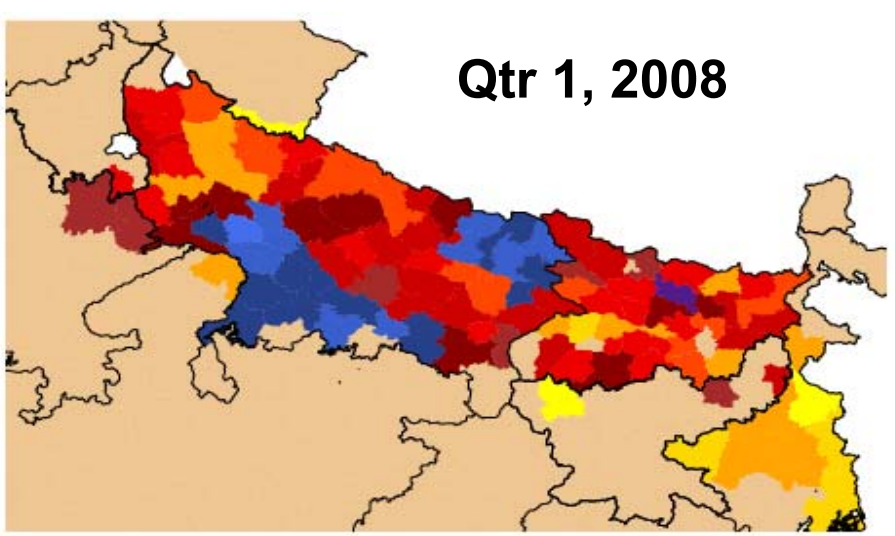
Risk: suboptimal scale of mop-ups

(recent India mop-ups compared to WHA resolution, 2006



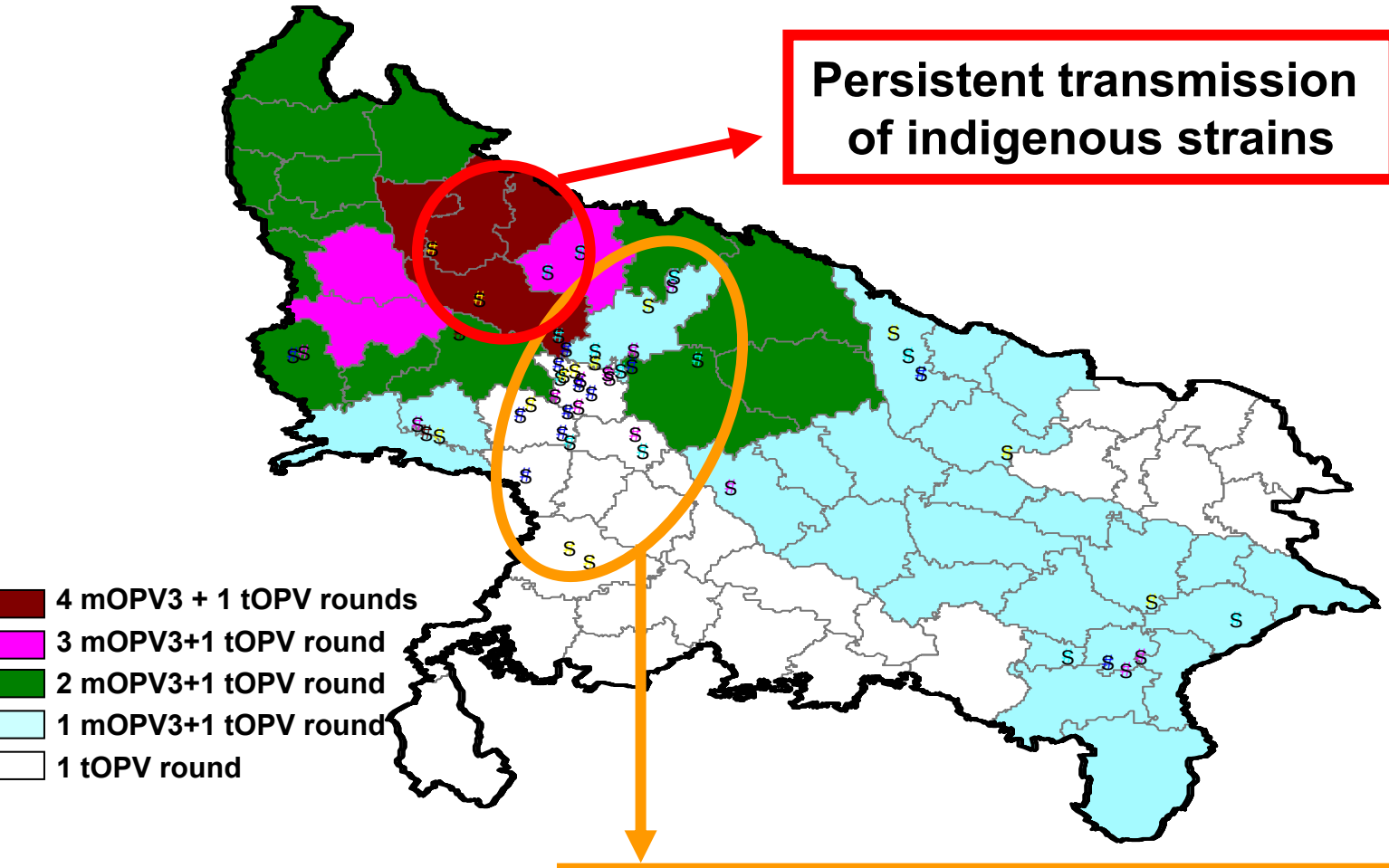
Some ongoing type 3 immunity gaps, especially in UP





* direct protection by vaccination against type 3 polio among children aged 0-4 yrs

RISK: relationship between type 3 rounds (Dec 06-Nov 07) & recent WPV3 cases, UP



Programme fatigue

+ community fatigue

VACCINE SECURITY

- *mOPV3 runs out within 3 months.*
- *There is minimum flexibility to respond to epidemiologic developments.*
- *There is no OPV tendered beyond early-2009 (only country in the world!).*

IEAG Conclusion 2

Q2 What are the risks to eradication progress?

A2 Major risks:

- Continued type 1 transmission in Bihar/EUP,
- Expansion of type 3 outbreak in UP,
- Sub-optimal mop-up scale & operations,
- Programme fatigue,
- Vaccine security.

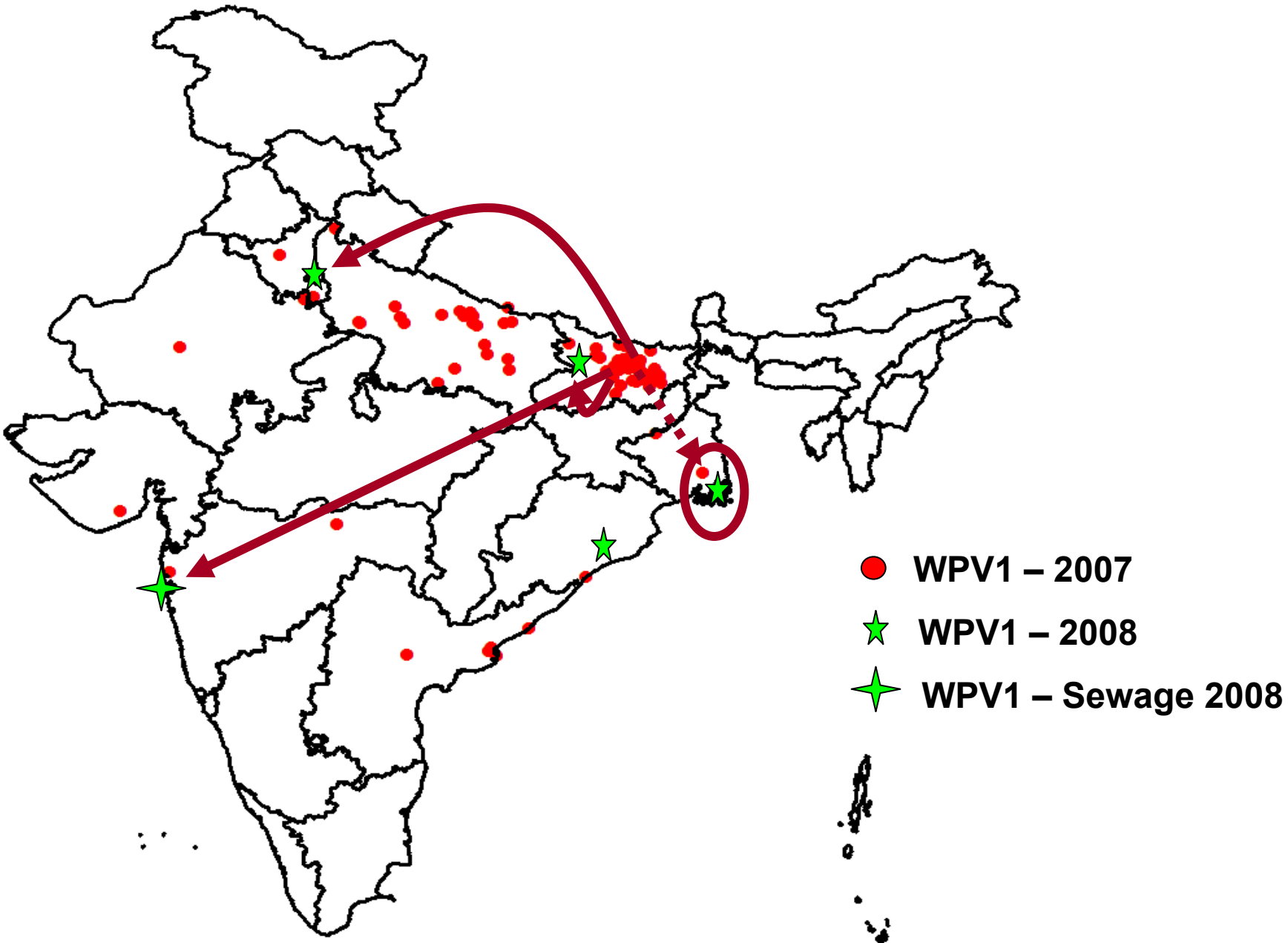
What do we do next to reduce risks?

1) Finish type 1 in Bihar.

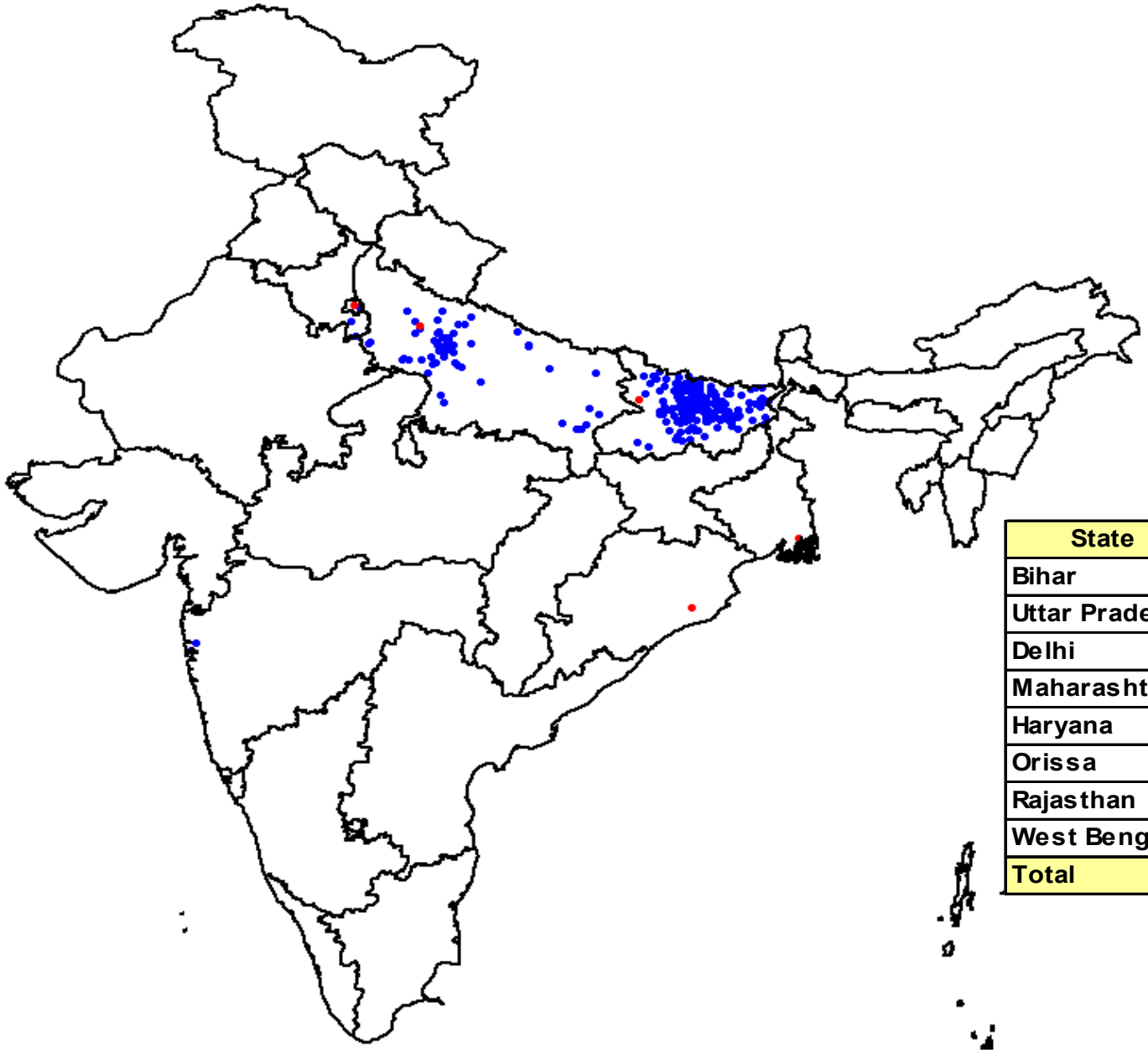
2) Mop-up type 1 everywhere.

3) Prepare to eradicate type 3 in 2009 *(esp. from West UP!)*

Strategic importance/risk of Bihar!



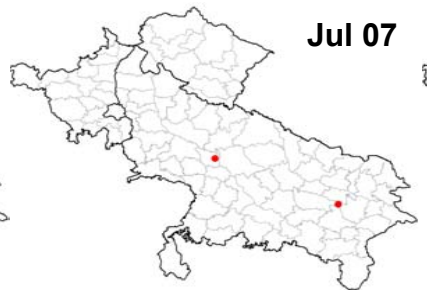
Location of poliovirus by type, 2008*



State	P1	P3	Total
Bihar	1	187	188
Uttar Pradesh	1	61	62
Delhi	1	1	2
Maharashtra	0	2	2
Haryana	0	1	1
Orissa	1	0	1
Rajasthan	0	1	1
West Bengal	1	0	1
Total	5	253	258

a as on 6th June 2008

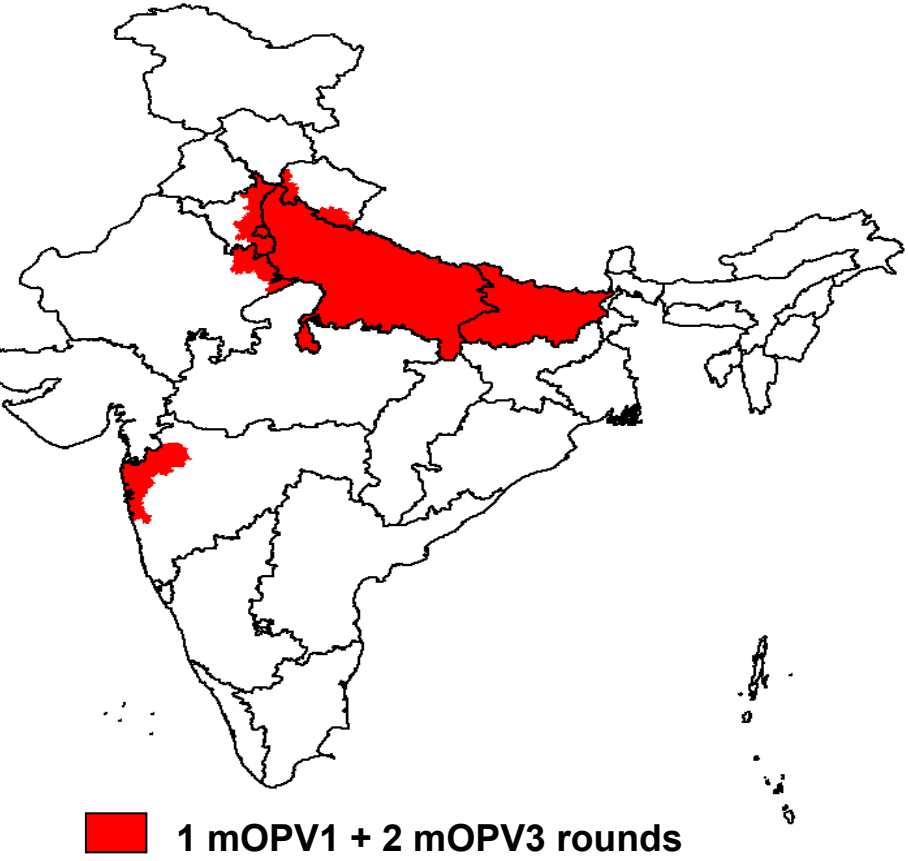
P1 Polio cases, Uttar Pradesh, Uttarakhand, Delhi and Haryana

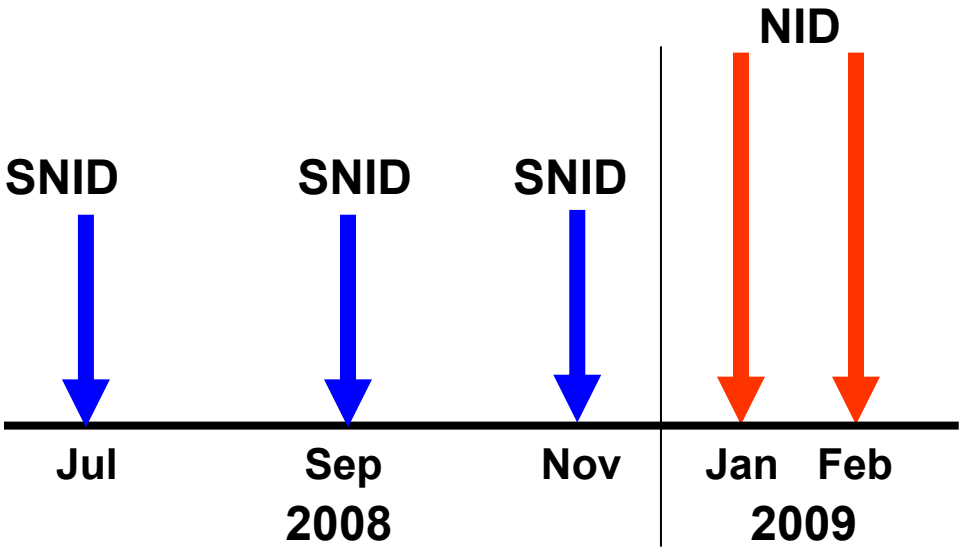


a as on 6th June 2008

NIDs/SNIDs, July 08 to Feb 09
as recommended by IEAG (Dec 2007)

SNID area – Jul to Dec 08

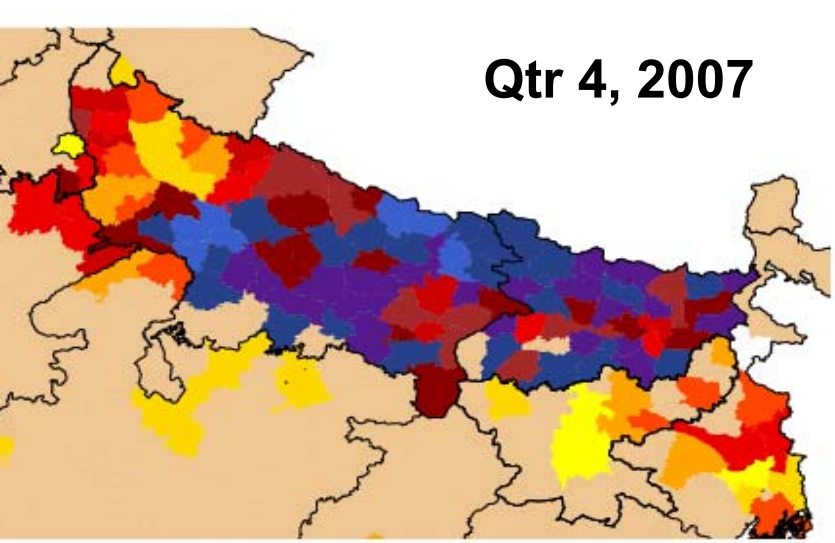


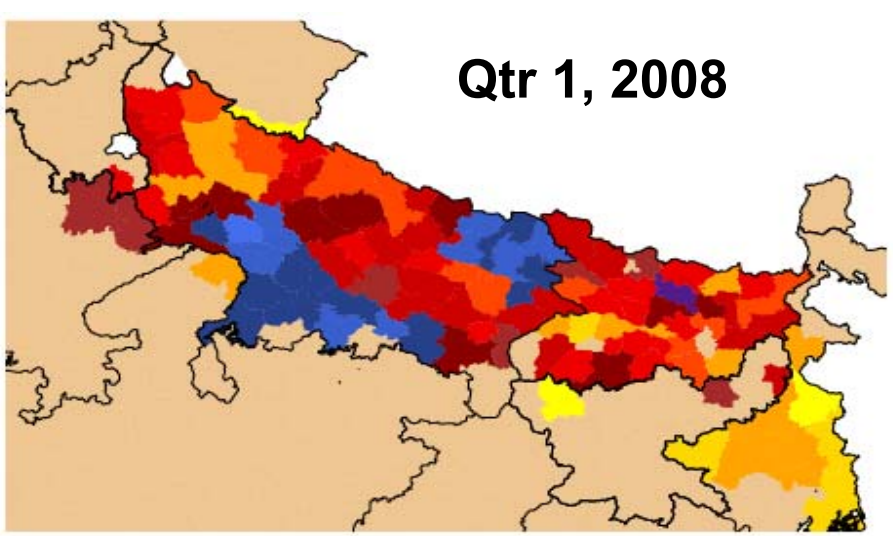


Vaccine type - 2008

Round	Uttar Pradesh	Bihar	Mumbai/Thane/Raigad	Delhi
Jan	mOPV1	mOPV1	mOPV1	mOPV1
Feb	mOPV1	mOPV1	mOPV1	mOPV1
Mar	mOPV3	mOPV3	mOPV3	mOPV1
Apr	mOPV1	mOPV1	mOPV3/tOPV	mOPV1
May		mOPV1 (HR blocks)		
Jun	mOPV3	mOPV1	mOPV3	mOPV3
Jul	mOPV1	mOPV3	mOPV1	mOPV1
Sep	mOPV1	mOPV1	mOPV1	mOPV1
Nov	mOPV3	mOPV1*	mOPV3	mOPV3

As well as eradicating type 1, SIA strategy i also tailored to type 3 immunity gap in UP





* direct protection by vaccination against type 3 polio among children aged 0-4 yrs

IEAG Recommendation: SIA Quality

- ***Bihar: the highest priority of the entire programme must be to continue improving/sustaining SIA quality in the HR blocks of Bihar***
- UP: highest priority is areas of WPV3 persistence (i.e. **west UP**, central UP).
- Other States: continued focus on mobile populations of UP & Bihar (esp. in Harayana, Punjab, Delhi, Mumbai)

IEAG Recs: Communications

'SocMob Network': IEAG endorses the expansion of the Network and communications review plan.

Sentinel Surveys: IEAG strongly endorses the plan for 4-monthly quantitative surveys of public opinion and requests sharing of the results of the 1st survey by August 2008.

Media: programme should use appropriate milestones (eg. 12 months without a virus in a state) to strengthen media understanding & population/political support.

IEAG Recommendation: Mop-ups (1)

Role: through end-2008, mop-up in response to:

- any WPV 1 in India
- any WPV 3 outside UP or Bihar

Strategy:

- Core Group meeting within 24 hours.
- investigate & asses risk within 72 hrs of index case (with genetic sequencing data within 36-72 hours).
- *at least 3 house-to-house mOPV rounds;* 1st within 2 weeks.
- minimum of 5 million children (may be larger in UP/Bihar!).

IEAG Recommendation: Mop-ups (2)

Mop-up Management:

- Federal level: establish multi-agency core group/task force to manage mop-up process & coordinate with states.
- Develop contingency plan for mop-up communications.
- State level: develop 'polio emergency mop-up plan' with indicators, responsibilities, etc based on Union guidance.

Vaccine:

- maintain stockpile of 75 m doses of mOPV1 & mOPV3; REVIEW & REPLENISH EVERY 3 MONTHS
- if high-titre mOPV1 trial shows >10% efficacy over regular mOPV1, preferentially use this for mop-ups & HR area SIAs.

IEAG Recommendations: SIA schedule & Vaccines, 2009-2011

2009

2 NIDs

- tOPV
- Q1

4 SNIDs

- 2 x mOPV3 in Q2
- 2 x in Q3-4 (mOPV1/3)
- UP, Bihar, Mumbai & risk areas

2010-11

2 NIDs

- tOPV
- Q1

NOTE: largescale mops-ups must be planned for 2009-2010

IEAG Recs: Vaccine Security

Pre-qualified Vaccine: only WHO-prequalified products or, in the case of mOPVs, 'WHO-recommended' products, should be used for routine & supplementary immunization activities.

OPV Tender: GoI should consider taking advantage of the 24-month UNICEF global OPV tender (target to issue: June 2008) to secure OPV supply & price.

OPV Licensing: IEAG urges immediate licensing of additional mOPV1 & mOPV3 products to ensure security of supply & optimize price at this critical point in the eradication effort.

IEAG Recs: Integrating into Routine EPI

Routine EPI: IEAG highlights that high coverage is vital to protecting against WPV re-introductions, preventing cVDPV emergence & meeting community needs. IEAG stresses that all states must plan for minimum coverage of >80%.

Routine Vaccine Stockouts: IEAG is alarmed by state reports of regular stockouts and highlights the need for sufficient Union capacity to track & manage this vital area.

IEAG Conclusion 3

Q3 what should we do next to reduce risks?

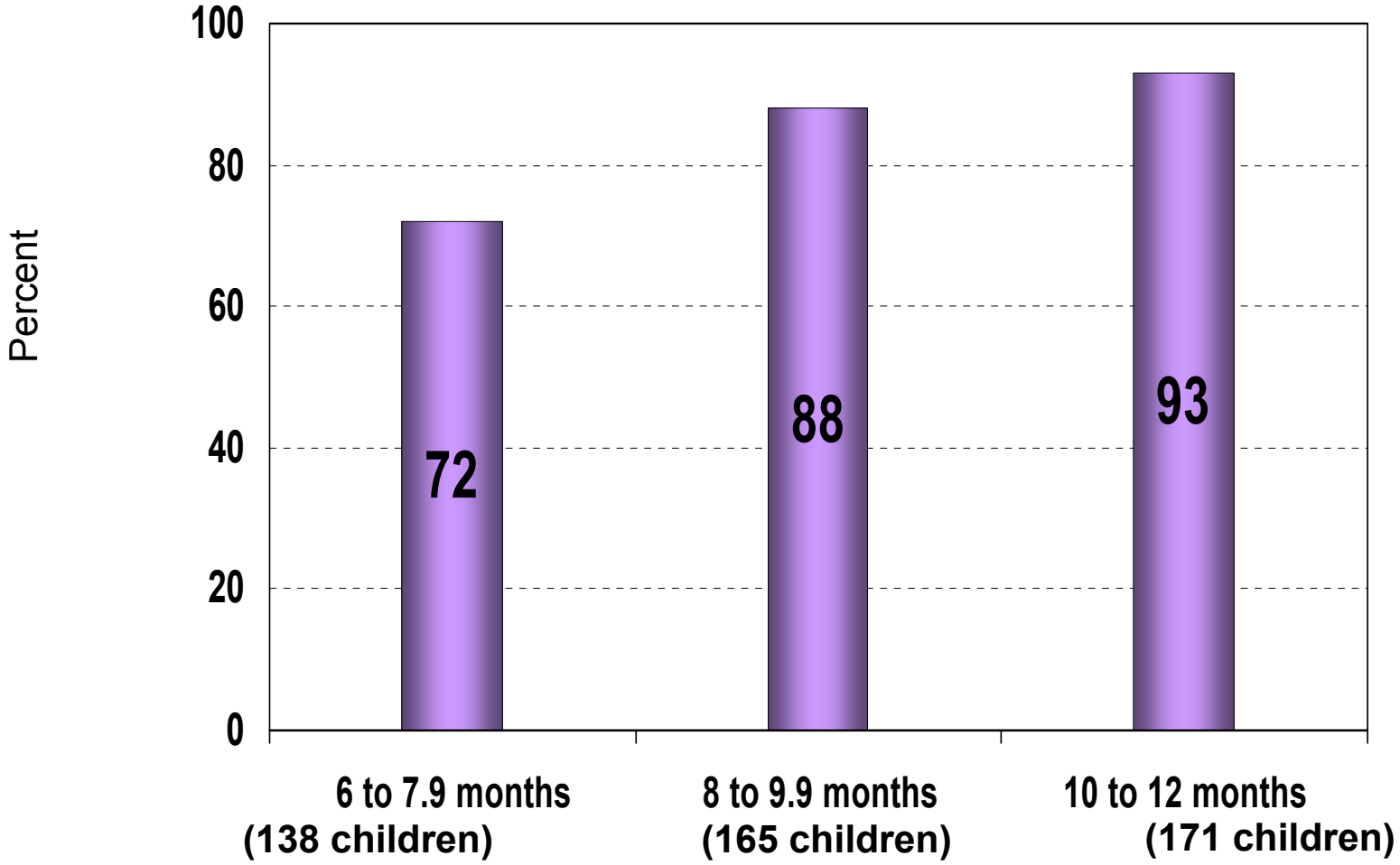
A3 **STOP TYPE 1 IN BIHAR, and….**

- continue focus on SIA quality in HR areas of Bihar & WUP
- markedly enhance mop-up strategy,
- ensure appropriate/flexible mOPV mix,
- continue to refine excellent communications work.,
- improve vaccine security (add'l products, longer tender)
- improve fundamentals of routine EPI (e.g. supply!)

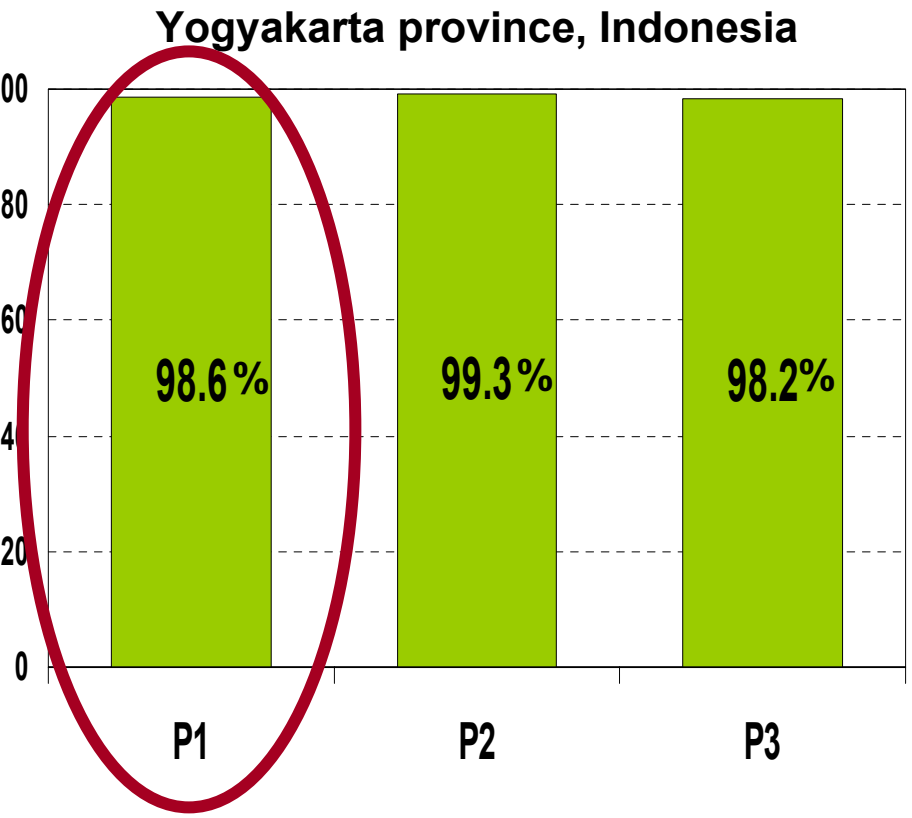
What are appropriate contingency plans?

Moradabad study shows persistent immunity gaps in very young children

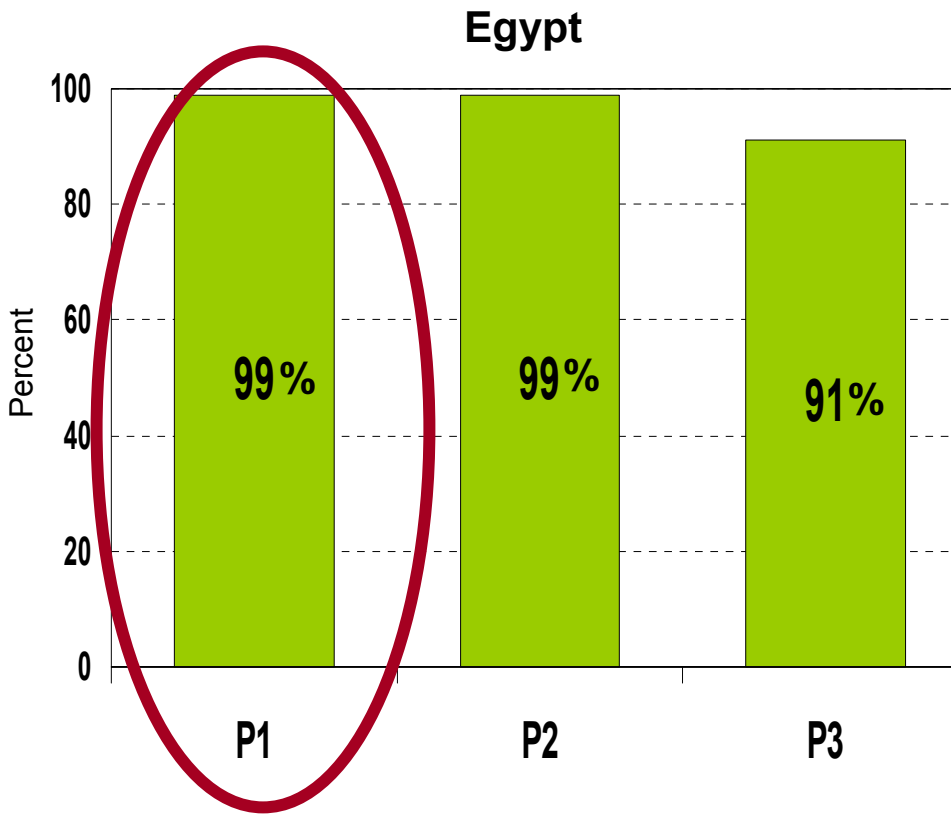
(% children sero positive for P1)



These immunity gaps are much higher than seen in other countries



Total children - 420



Total children – 1,013

Studies done in 2005

IEAG Recs: Programme Research

mOPV1 trial: if high-titre mOPV1 trial shows >10% efficacy gain over regular mOPV1, this should preferentially used for mop-ups & HR area SIAs.

Bivalent OPV trial: IEAG urges immediate DCG(I) decision (pending since Jan '08) or trial must be delayed until mid-2009.

IPV: as part of contingency planning, a trial should compare the impact of mOPV1 vs. full-dose IPV vs. fractional-dose (1/5th) IPV on immunity gaps in very young children (approx. 6 mos).

AFP seroprevalence study in West UP: IEAG urges immediate start of study & sharing initial results by end-2008.

Conclusion

India is now leading the intensified polio eradication effort & with aggressive mop-ups could be the 1st endemic country to interrupt all type 1 by end-2008.