

Poliovirus : éradication pour les prochaines JNI?



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Polio Eradication Progress 1988 - 2003

1988

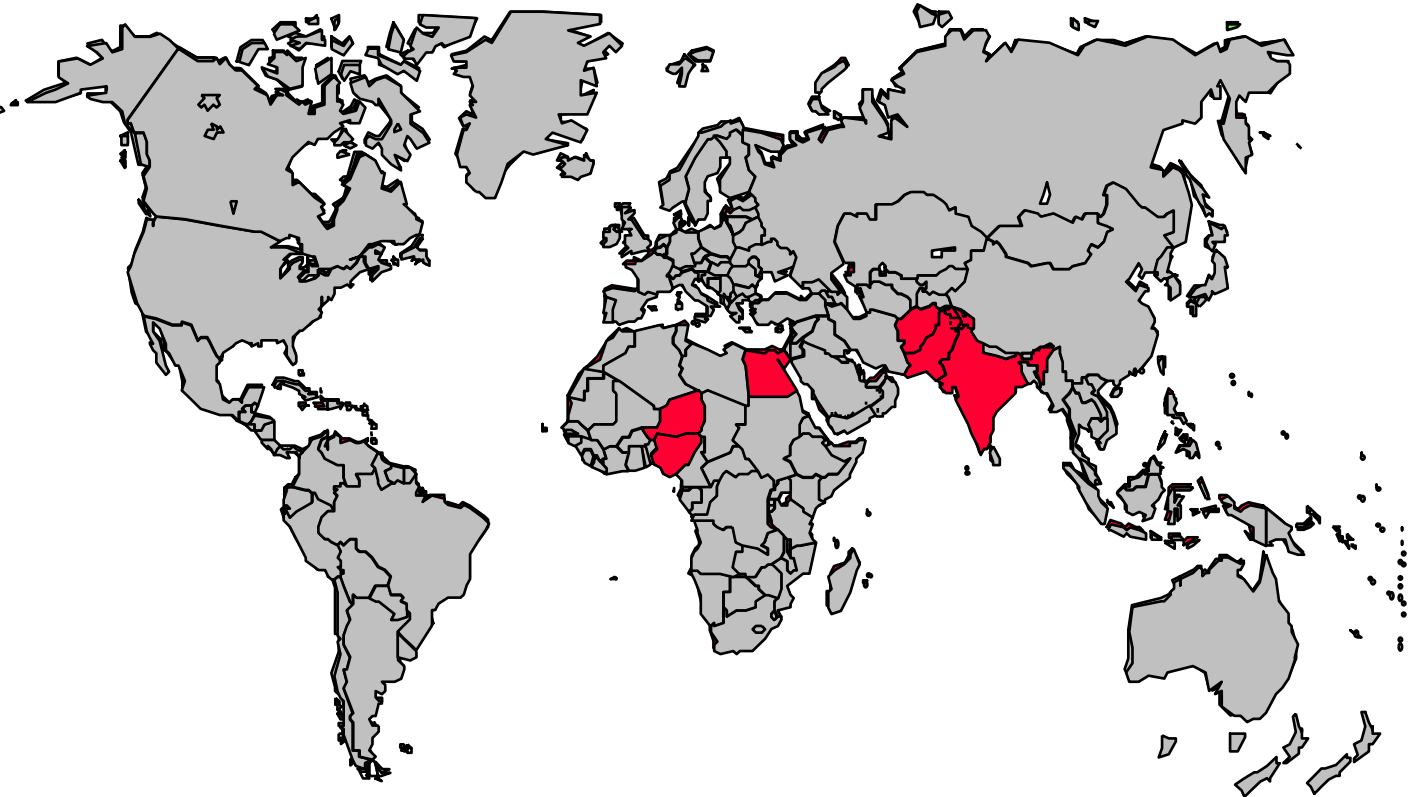
350 000 children

125 countries


2003

784 children

6 countries



Timeline for Polio Eradication

| | Wild Virus Eradication & Regional Cert. Phase | OPV Cessation & Verification Phase | 'Post OPV' Phase |
|---------------------|--|---|------------------|
| Priority Activities | <ul style="list-style-type: none"> • Interrupt wild virus • Contain wild viruses • Regional Certification • Develop stockpile • Enhance surveillance • Prepare to stop OPV | <ul style="list-style-type: none"> • Stop OPV • verify no cVDPVs • integrate into <i>IHR</i> | |
| Earliest Dates | 2005 2006 2007 2008 |  | |
| | | 2009 2010 2011 | 2012 2013 |

Impact of Previous Synchronized Polio Campaigns, Africa

14 Country Synchronized Immunization Days, 2000



1999



2001

Dilemma: Suspension of polio immunization, Northern Nigeria, August 2003

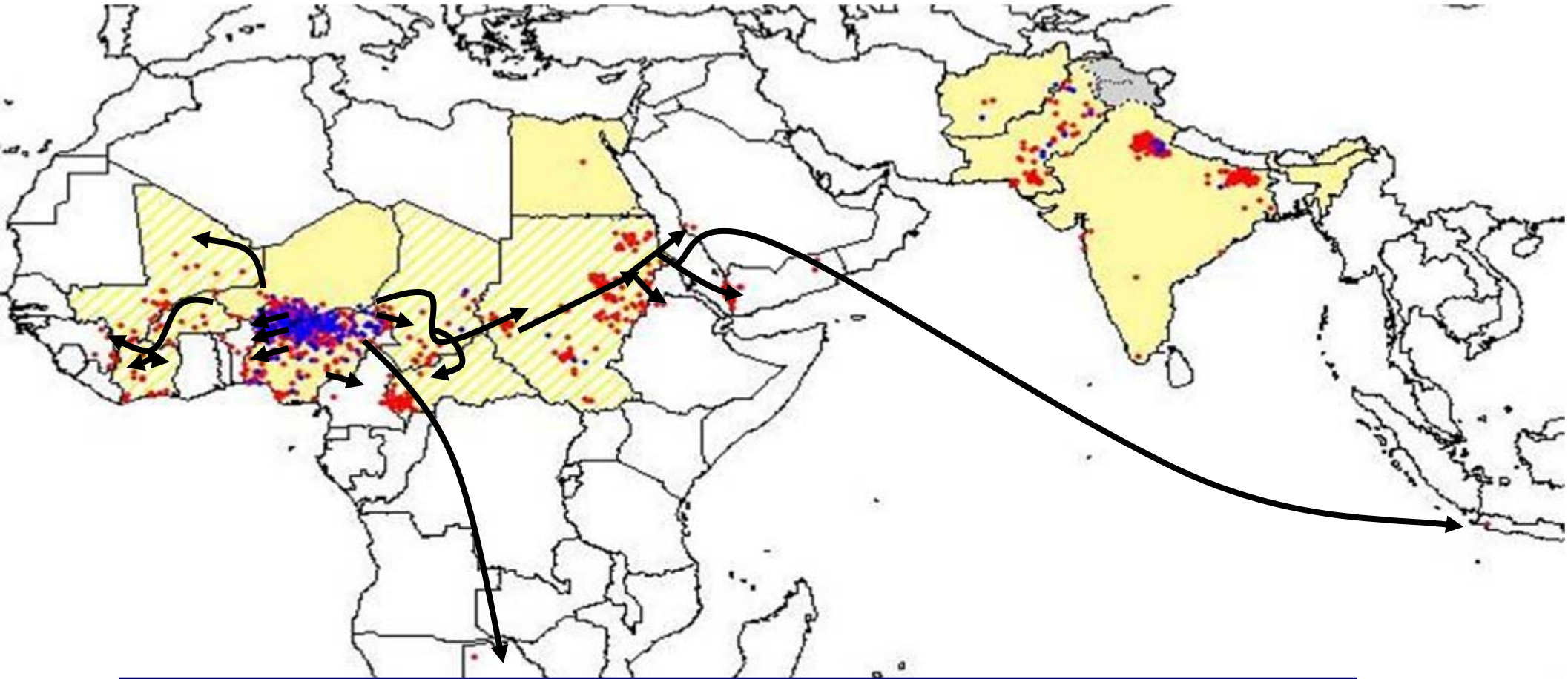
Polio Vaccines – ‘Western Countries Exploit Developing Ones’ Says Kano State Governor Shekarau



BYLINE: Daily Trust

"The Kano State governor, Malam Ibrahim Shekarau, has asserted that the people's objections to polio vaccines confirmed the exploitative actions of western nations towards developing countries."

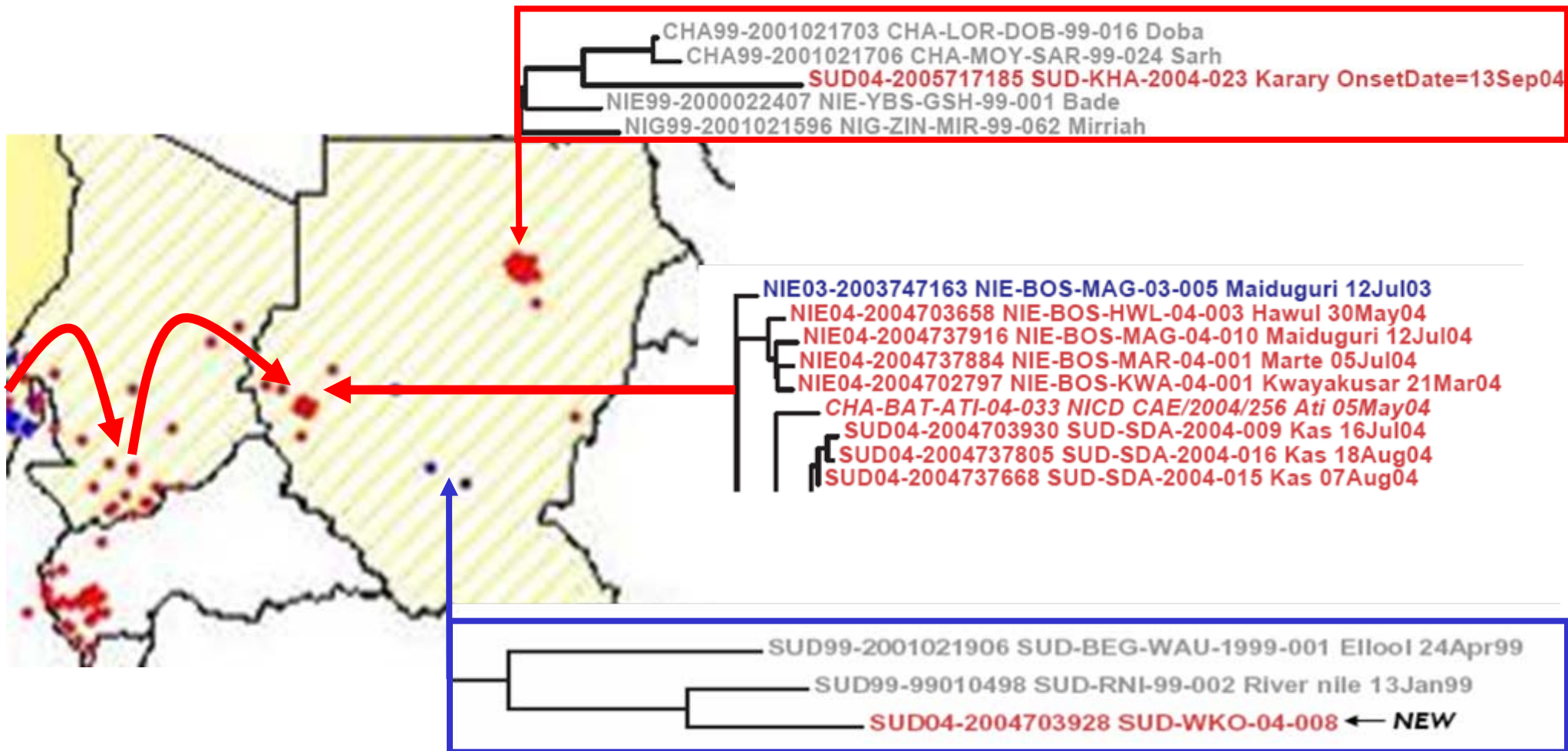
Spread of wild polio virus 2004-2005

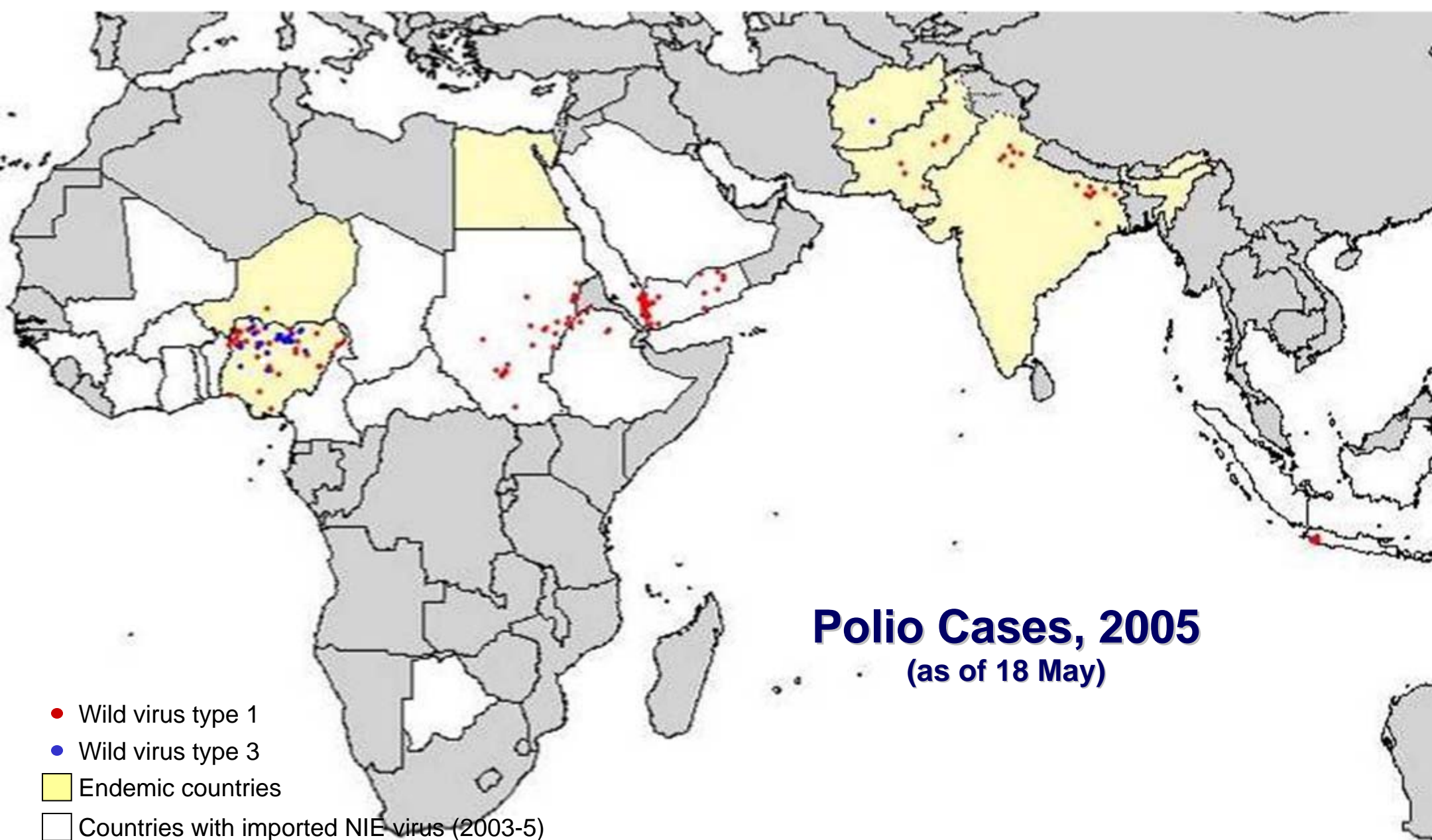


16 polio-free countries had importations originating in Nigeria
Polio transmission re-established in 6 polio-free countries.

Risk: AFP Surveillance Gaps

Eliminated viruses 'rediscovered' in 2004

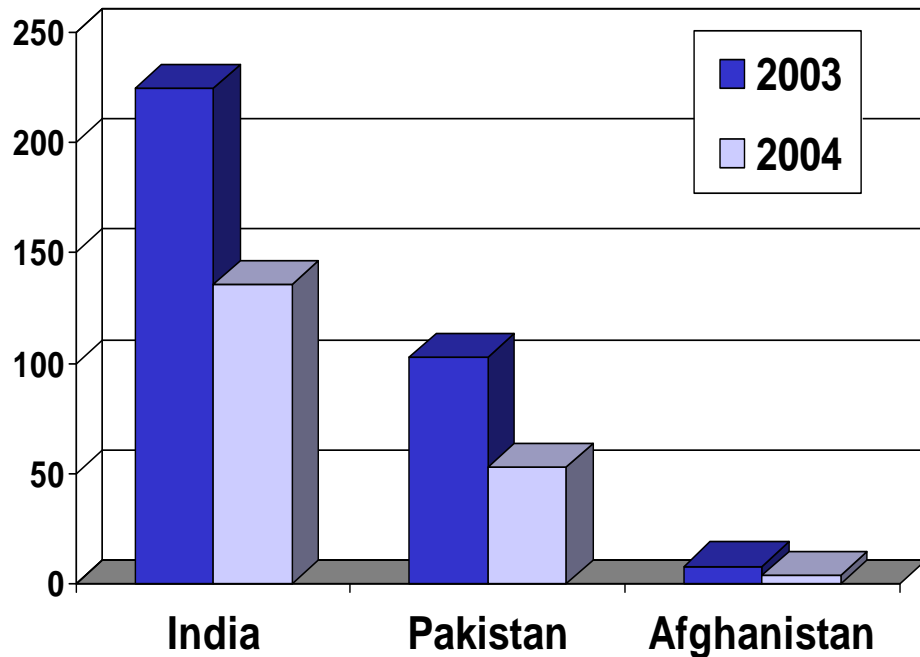




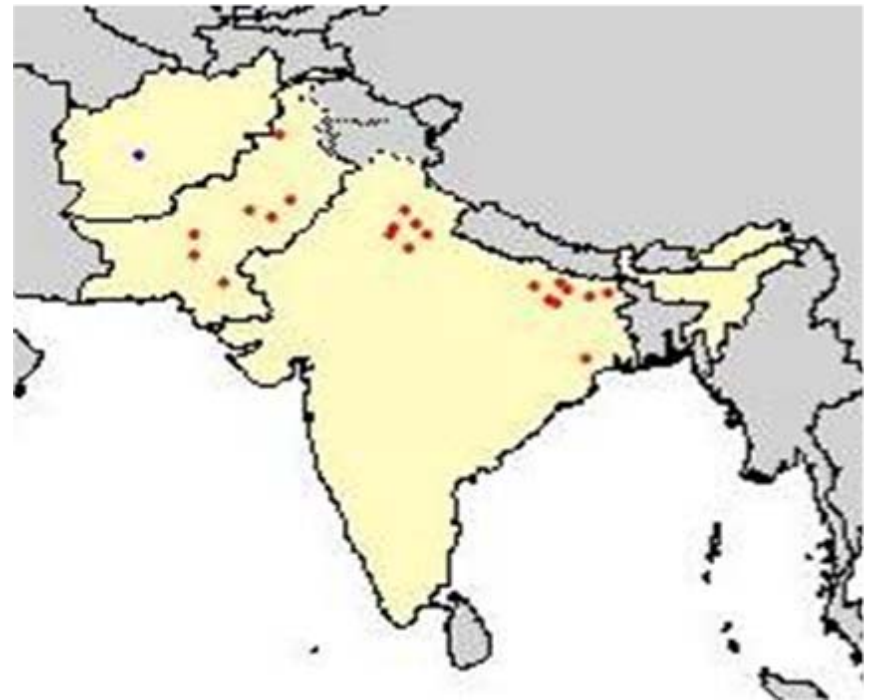
* Excludes environmental surveillance viruses.

Impact of Intensification, Asia

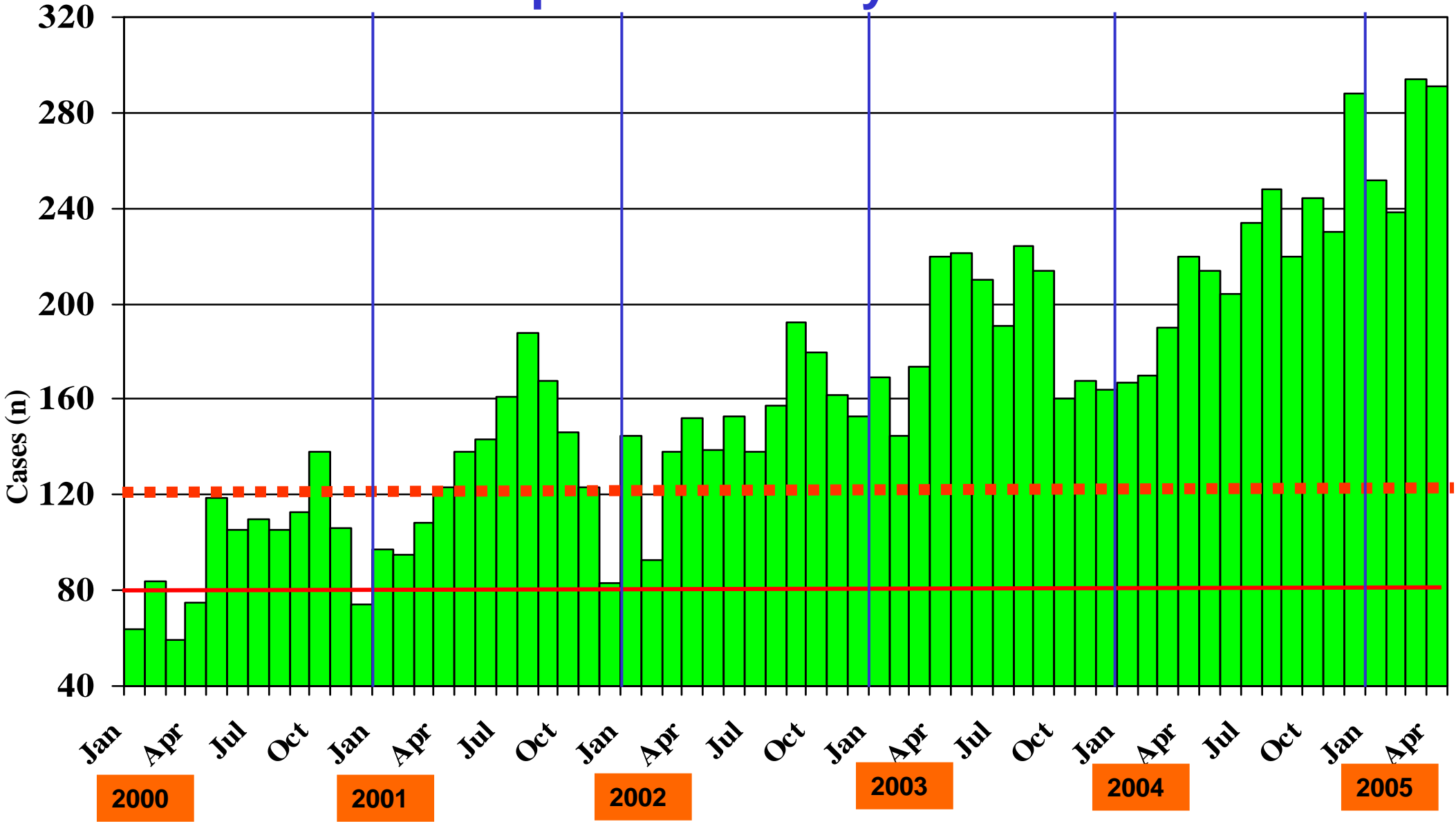
Reported Polio Cases, 2003-2004



Reported Polio Cases, 2005



PAKISTAN: Reported AFP By Month 2000-05*



—— @ non-polio AFP rate of 1/100,000 children < 15 years
- - - - @ non-polio AFP rate of 2/100,000 children < 15 years



May 2005

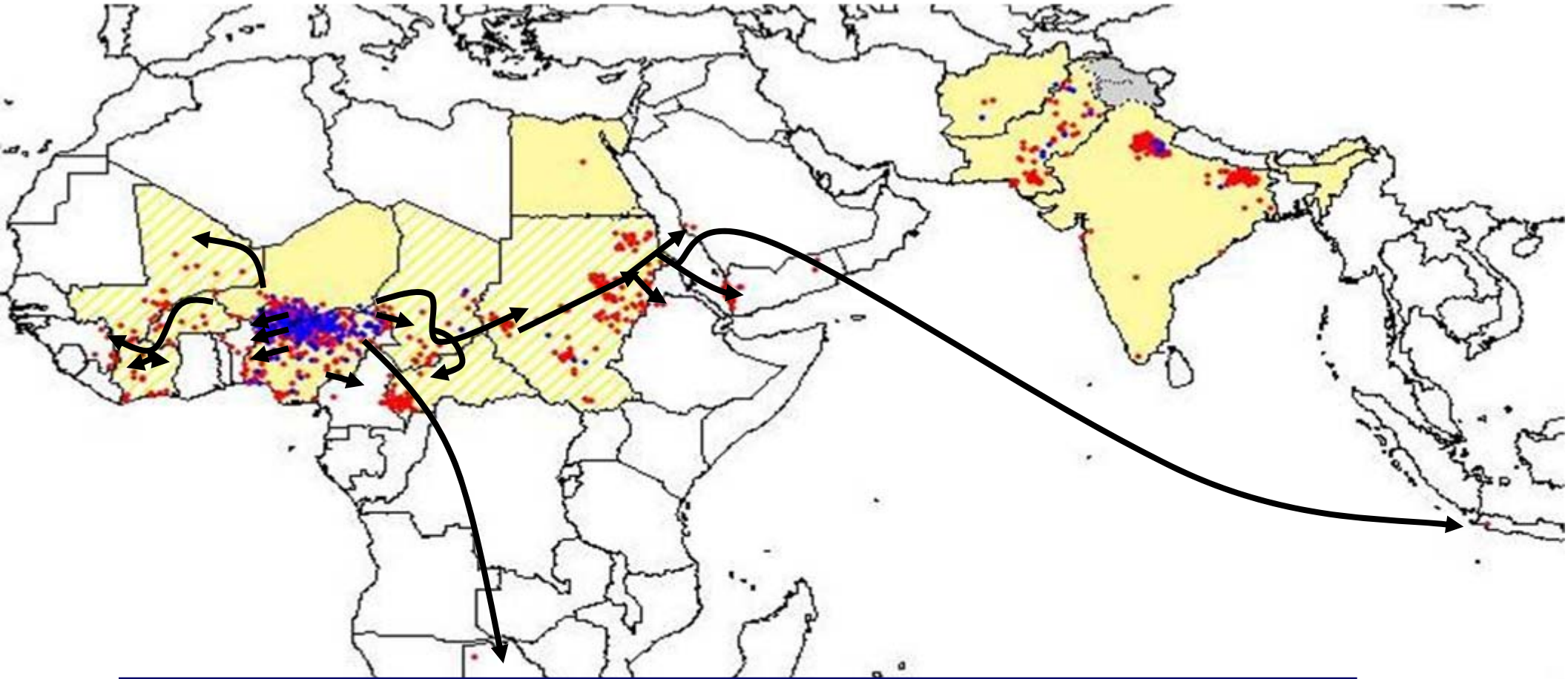
Data as of 14.05.2005 Source AFP.Rec file



Indonesia polio outbreak

- 8 cases confirmed
- 14 positive contact cases from healthy children
- First polio in Indonesia since 1995
- Imported virus from Sudan/Saudi Arabia, with origin in northern Nigeria

Spread of wild polio virus 2004-2005



16 polio-free countries had importations originating in Nigeria
Polio transmission re-established in 6 polio-free countries.

WEAF P1 genetic tree



Location of Wild Poliovirus



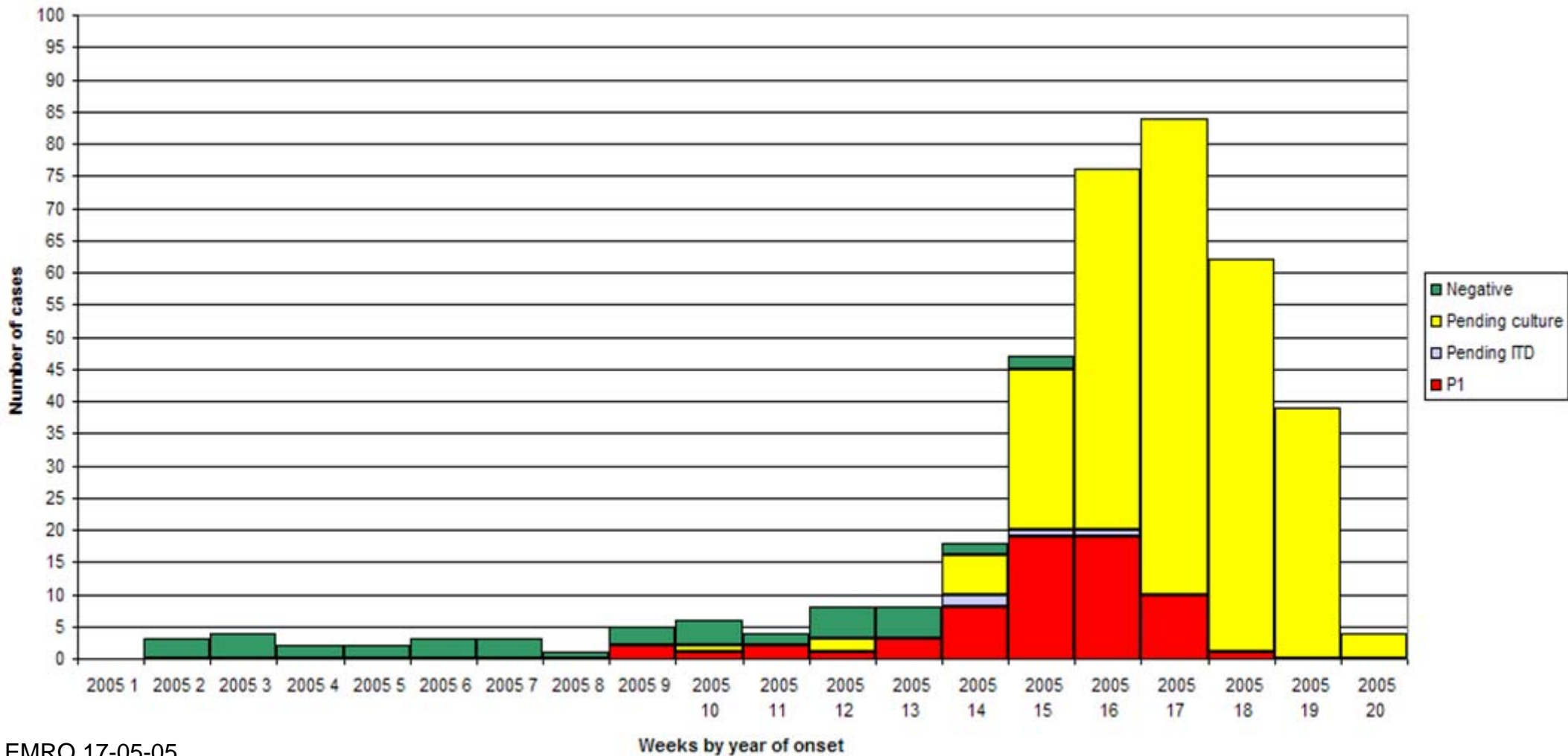
Yemen polio outbreak

- 88 cases confirmed (23/05), likely to far exceed 100 cases before outbreak is controlled
- First polio in Yemen since AFP surveillance began in 1996
- Imported virus from Sudan, with origin in northern Nigeria

Wild PV1 cases and n.-p. AFP cases

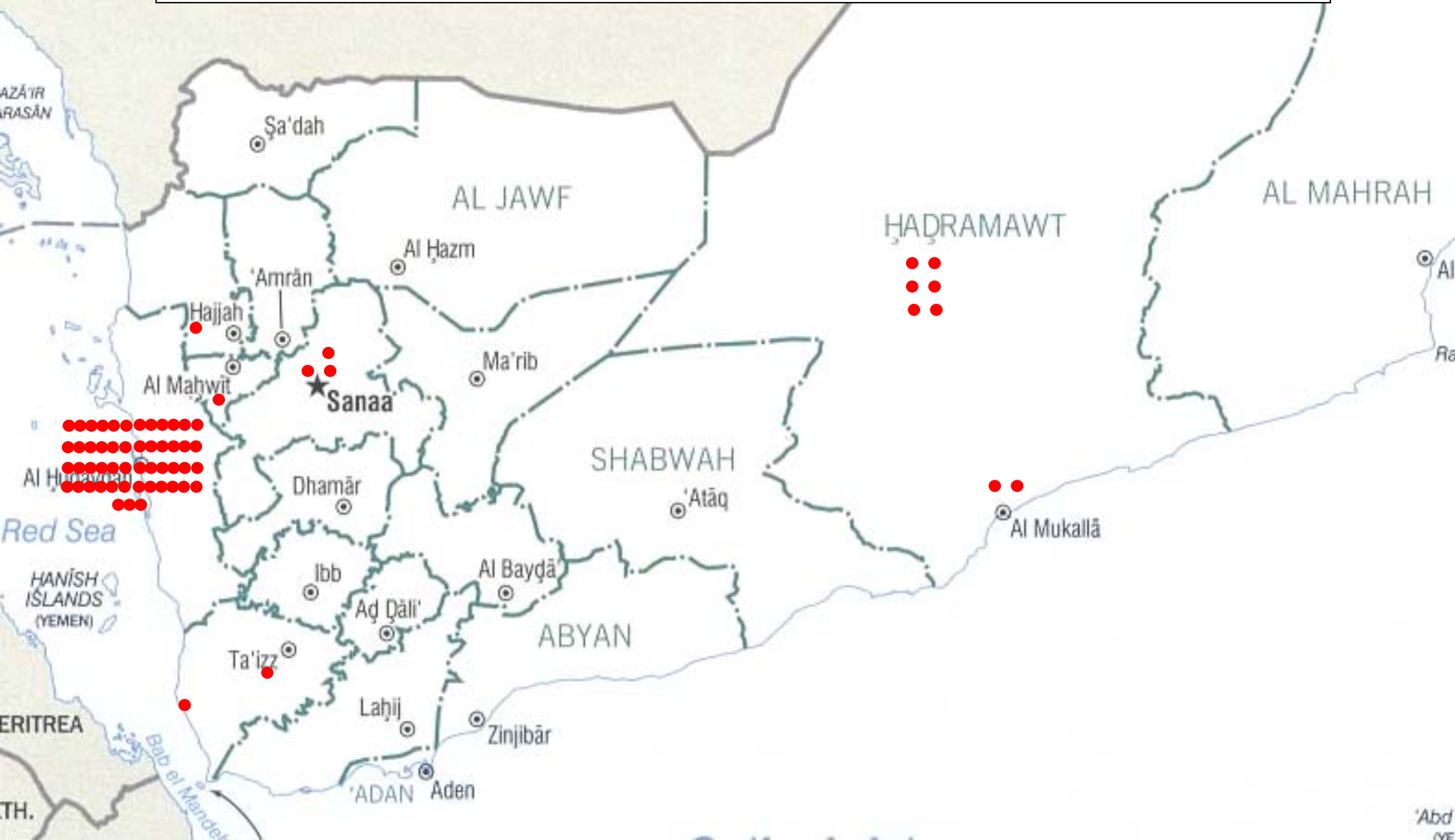
By laboratory status and epid. Week, Yemen, 2005

(As of 17 May 2005)



Type 1 Poliovirus Outbreak, Yemen, Jan to April 2005

(data as of May 1, 2005)



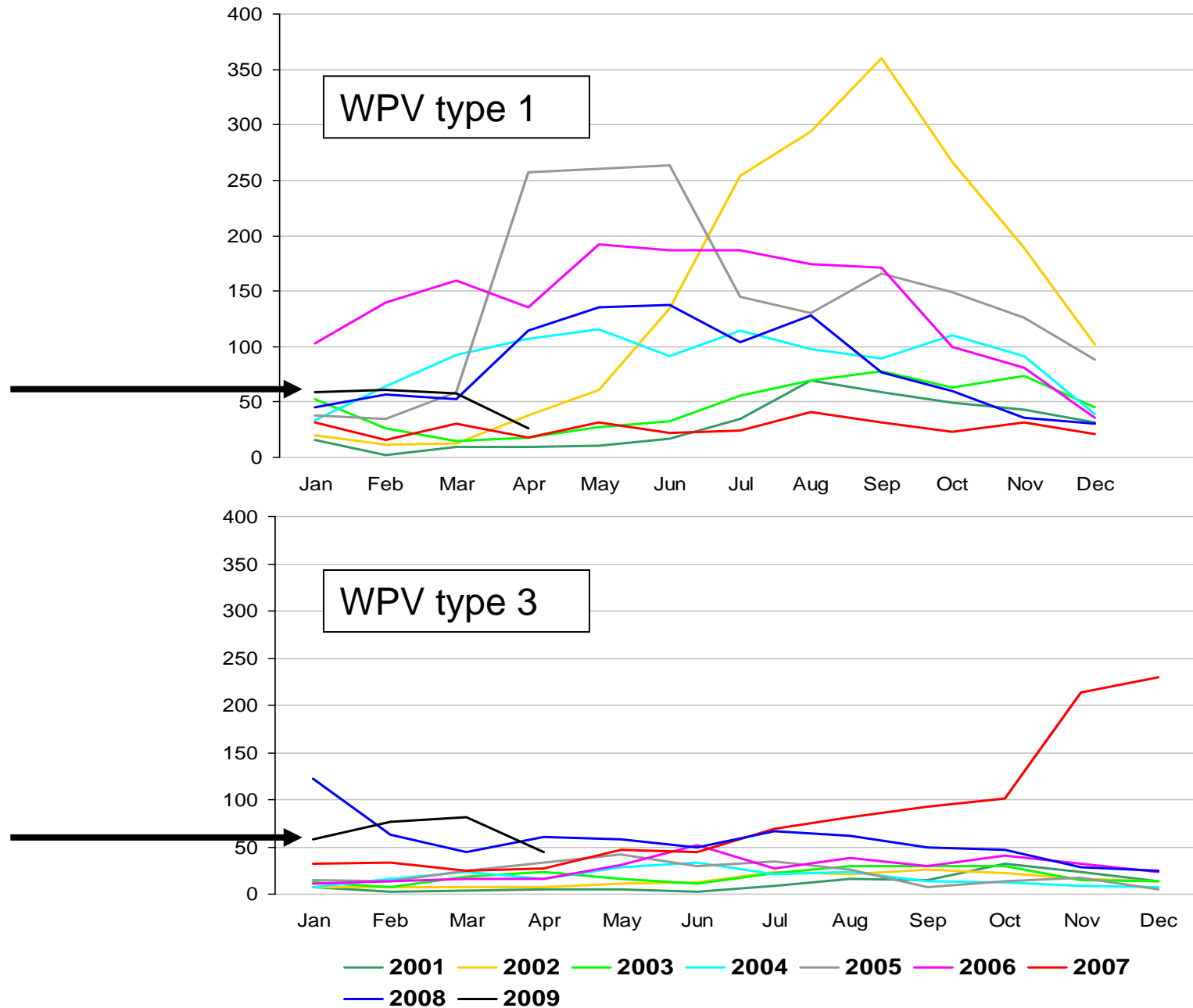
Summary

- Asia is set to stop polio by end-2005.
- Africa now moving back on track; the greatest risk remains a delay in Nigeria.
- Importations will occur until *all* countries are polio-free (highest risk is in the Horn of Africa).
- Multi-year financing can now secure this *global public good* for future generations.

Et aujourd'hui?

- Réduction ou pas?.
- Nigéria OK ou pas.
- VDPV ou pas?
- Des sous ou pas?.

Monthly distribution of Wild Poliovirus cases, 2001-2009



Data in WHO/HQ as of 26 May 2009. WPV type 1 includes 1 case in 2009, 1 case in 2008, 3 cases in 2007, 2 cases in 2006, 3 cases in 2005, 2004, 2002 and 4 cases in 2001 with a mixture of W1W3 virus. For 2009, cases with onset in May will be reflected end of June

Wild Poliovirus infected districts, 2008-2009

| Country [§] | total districts in country** | 2008 total infected districts | 2009 total infected districts | 01 Jan - 26 May * | | | | | | date of most recent case |
|------------------------------------|------------------------------|-------------------------------|-------------------------------|----------------------------|----------------------------|------------------------------|----------------------------|----------------------------|------------------------------|--------------------------|
| | | | | 2008 | | | 2009 | | | |
| | | | | districts infected with W1 | districts infected with W3 | districts infected with W1W3 | districts infected with W1 | districts infected with W3 | districts infected with W1W3 | |
| India | 604 | 90 | 25 | 4 | 55 | | 11 | 17 | 0 | 7-May-09 |
| Pakistan | 133 | 49 | 12 | 8 | 1 | | 8 | 5 | 0 | 6-May-09 |
| CAR | 24 | 3 | 2 | 1 | | | | 2 | | 3-May-09 |
| Nigeria | 774 | 241 | 161 | 103 | 17 | | 53 | 116 | 1 | 24-Apr-09 |
| Sudan | 98 | 15 | 20 | 1 | | | 20 | | | 20-Apr-09 |
| Afghanistan | 329 | 16 | 6 | 3 | 3 | | 6 | 0 | 0 | 19-Apr-09 |
| Kenya | 78 | | 2 | | | | 2 | | | 12-Apr-09 |
| Côte d'Ivoire | 79 | 1 | 10 | | | | 10 | | | 12-Apr-09 |
| Angola | 164 | 15 | 4 | 1 | 4 | | 4 | | | 11-Apr-09 |
| Benin | 77 | 6 | 14 | | | | 14 | | | 9-Apr-09 |
| Guinea | 38 | | 1 | | | | 1 | | | 9-Apr-09 |
| Burkina Faso | 55 | 6 | 7 | | | | 7 | | | 2-Apr-09 |
| Chad | 54 | 22 | 1 | | 2 | | | 1 | | 1-Apr-09 |
| Togo | 35 | 2 | 5 | | | | 5 | | | 28-Mar-09 |
| Niger | 42 | 8 | 8 | 6 | | | | 8 | | 23-Mar-09 |
| Uganda | 80 | | 1 | | | | 1 | | | 21-Feb-09 |
| DR Congo | 515 | 5 | 1 | 2 | | | | 1 | | 10-Feb-09 |
| Mali | 59 | 1 | 1 | | | | 1 | | | 4-Jan-09 |
| Ghana | 138 | 7 | | | | | | | | 8-Nov-08 |
| Nepal | 75 | 6 | | | 3 | | | | | 15-Oct-08 |
| Ethiopia | 97 | 2 | | 1 | | | | | | 27-Apr-08 |
| Total | 3548 | 495 | 281 | 130 | 85 | | 143 | 150 | 1 | |
| Total in endemic countries | 1840 | 396 | 204 | 118 | 76 | | 78 | 138 | 1 | |
| Total in non-end. countries | 1708 | 99 | 77 | 12 | 9 | | 65 | 12 | | |

[§] Countries highlighted in yellow are currently endemic

* Data in WHO/HQ as of 27 May 2008 for 2008 data and as of 26 May 2009 for 2009 data

** Source: WHO/UNICEF 2007 Joint Reporting Form

circulating Vaccine-derived Poliovirus*, 2000-2009

| Country | Type | cVDPV | | | | | | | | | | First case | Last case |
|--------------|--------|-------|------|------|------|------|------|------|------|------|------|------------|-----------|
| | | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | | |
| Nigeria | VDPV 2 | | | | | | 1 | 21 | 68 | 62 | 71 | 2-Jul-05 | 26-Apr-09 |
| Ethiopia | VDPV 2 | | | | | | | | | 3 | 1 | 4-Oct-08 | 16-Feb-09 |
| DR Congo | VDPV 2 | | | | | | | | | 14 | | 22-Mar-08 | 15-Dec-08 |
| Myanmar | VDPV 1 | | | | | | | 1 | 4 | | | 9-Apr-06 | 6-Dec-07 |
| Niger*** | VDPV 2 | | | | | | | 2 | | | | 28-May-06 | 3-Oct-06 |
| Cambodia | VDPV 3 | | | | | | 1 | 1 | | | | 26-Nov-05 | 15-Jan-06 |
| Indonesia | VDPV 1 | | | | | | 46 | | | | | 9-Jun-05 | 26-Oct-05 |
| Madagascar** | VDPV 2 | | 1 | 4 | | | 3 | | | | | | 13-Jul-05 |
| China | VDPV 1 | | | | | 2 | | | | | | 13-Jun-04 | 11-Nov-04 |
| Philippines | VDPV 1 | | 3 | | | | | | | | | 15-Mar-01 | 26-Jul-01 |
| DOR/Haiti | VDPV 1 | 12 | 9 | | | | | | | | | 12-Jul-00 | 12-Jul-01 |

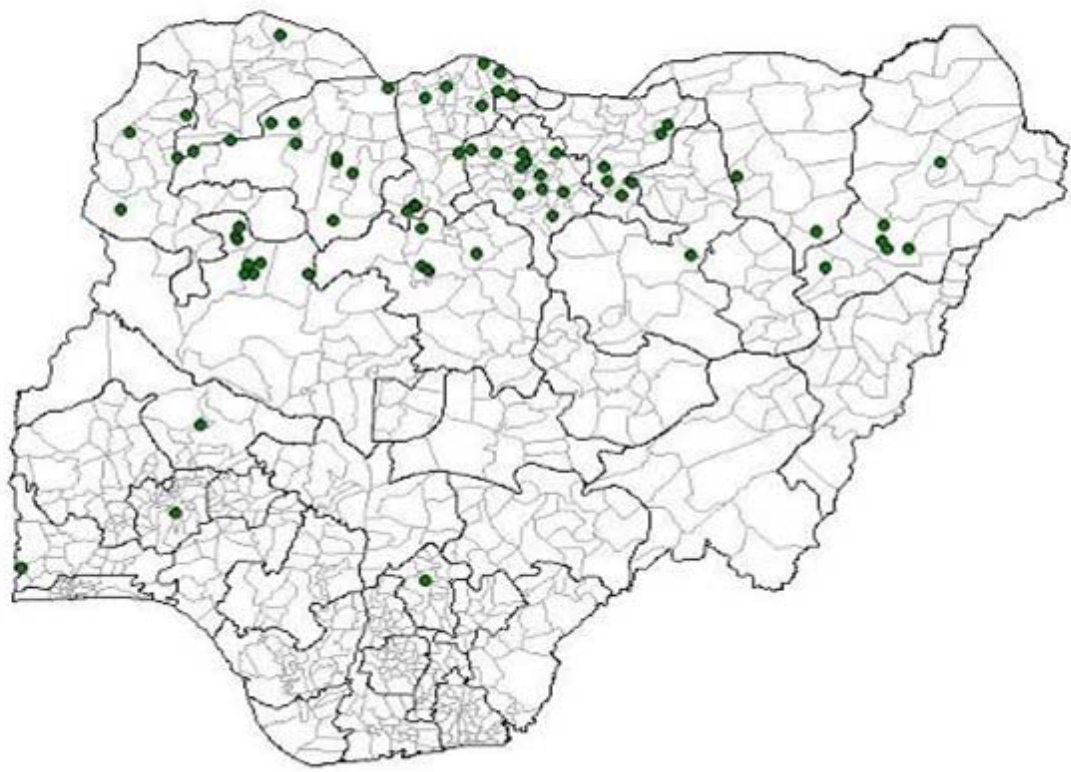
** Madagascar: two different outbreaks (2001/02 and 2005)

*** Niger cVDPVs are linked to the Nigeria outbreak

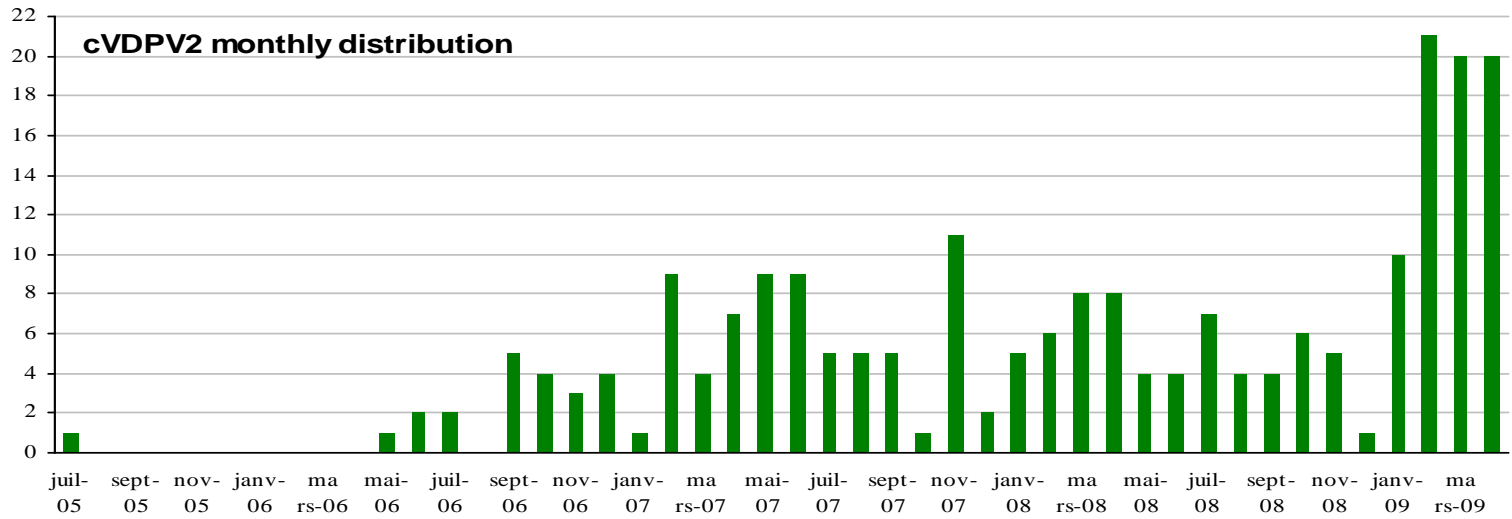
* circulating Vaccine-derived poliovirus (cVDPV) is associated with 2 or more cases of AFP

Data in WHO/HQ as of 26 May 2009

Circulating Vaccine-derived Polioviruses in Nigeria, 2009



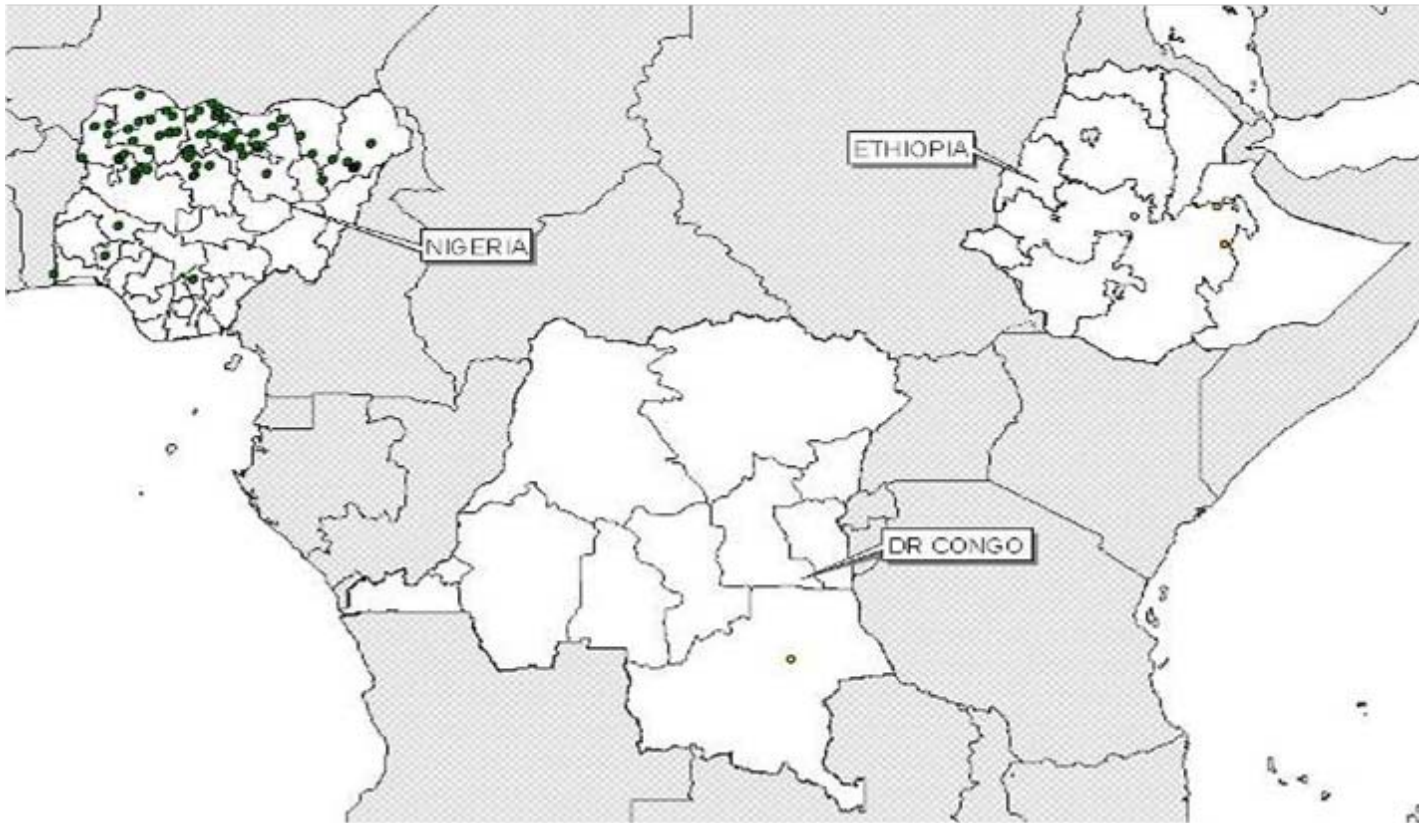
● cVDPV2 (71 cases)



dots are randomly placed within districts

Data in WHO HQ as of 26 May 2009

Circulating Vaccine-derived Polioviruses



Rolling 6 months
27 Nov 2008 – 26 May 2009

- NIE - cVDPV2 (73 cases)
- DRC - cVDPV2 (1 case)
- ETH - cVDPV2 (2 cases)

