

Pakistan Polio Update

*Meeting of the Strategic Advisory Group of Experts (SAGE)
10th April 2012*

Polio cases by Province & Year

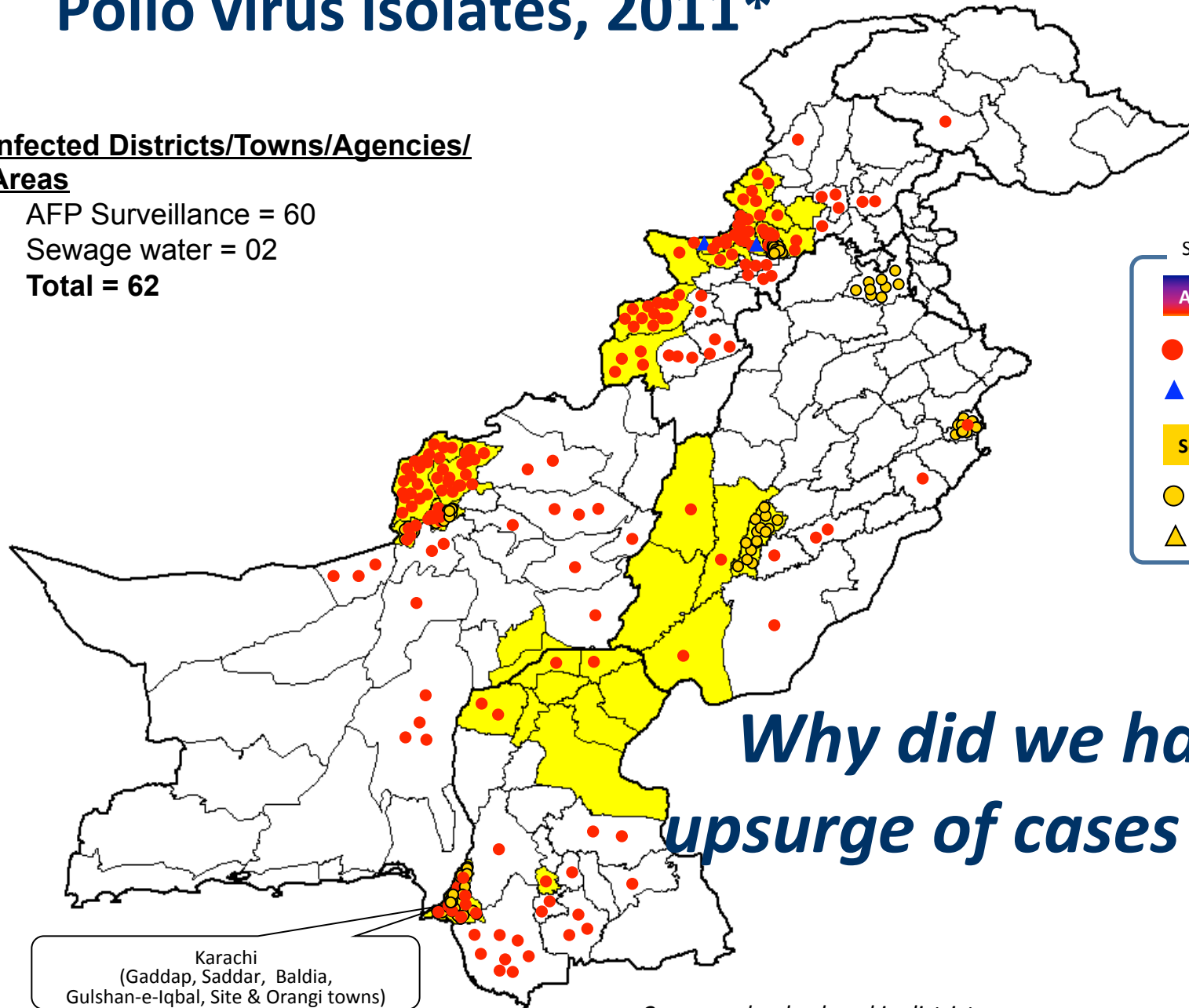
(as of 31st March)

PROVINCE	2010	2011	2012*
PUNJAB	0	0	1
SINDH	1	6	2
KP	3	2	4
FATA	4	13	6
BALUCHISTAN	3	4	2
PAKISTAN	11	25	15

Polio virus isolates, 2011*

Infected Districts/Towns/Agencies/ Areas

- AFP Surveillance = 60
 - Sewage water = 02
- Total = 62**

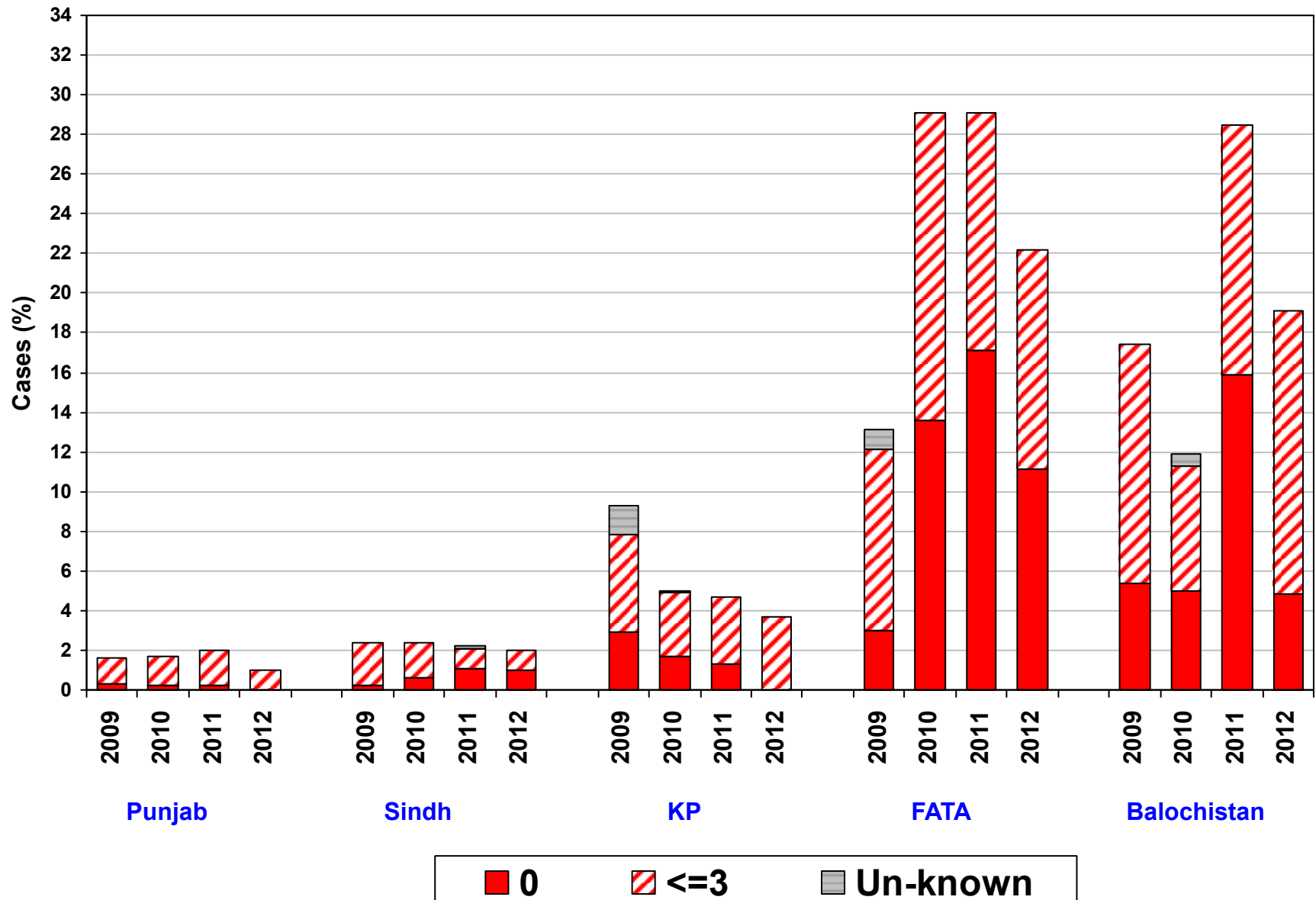


* Afp.rec Data as of 14-03-2012

Why are we here?

- One of the longest polio eradication without clear accountability and oversight mechanism
- Monetary attraction created a mafia in the program: Zonal Supervisors
 - *Responsible for misuse of resources; e.g. ghost teams, under-utilization of the fuel /vehicle hiring cost*
 - *Child vaccinators*
- Under-performance in the key areas
- Insecurity

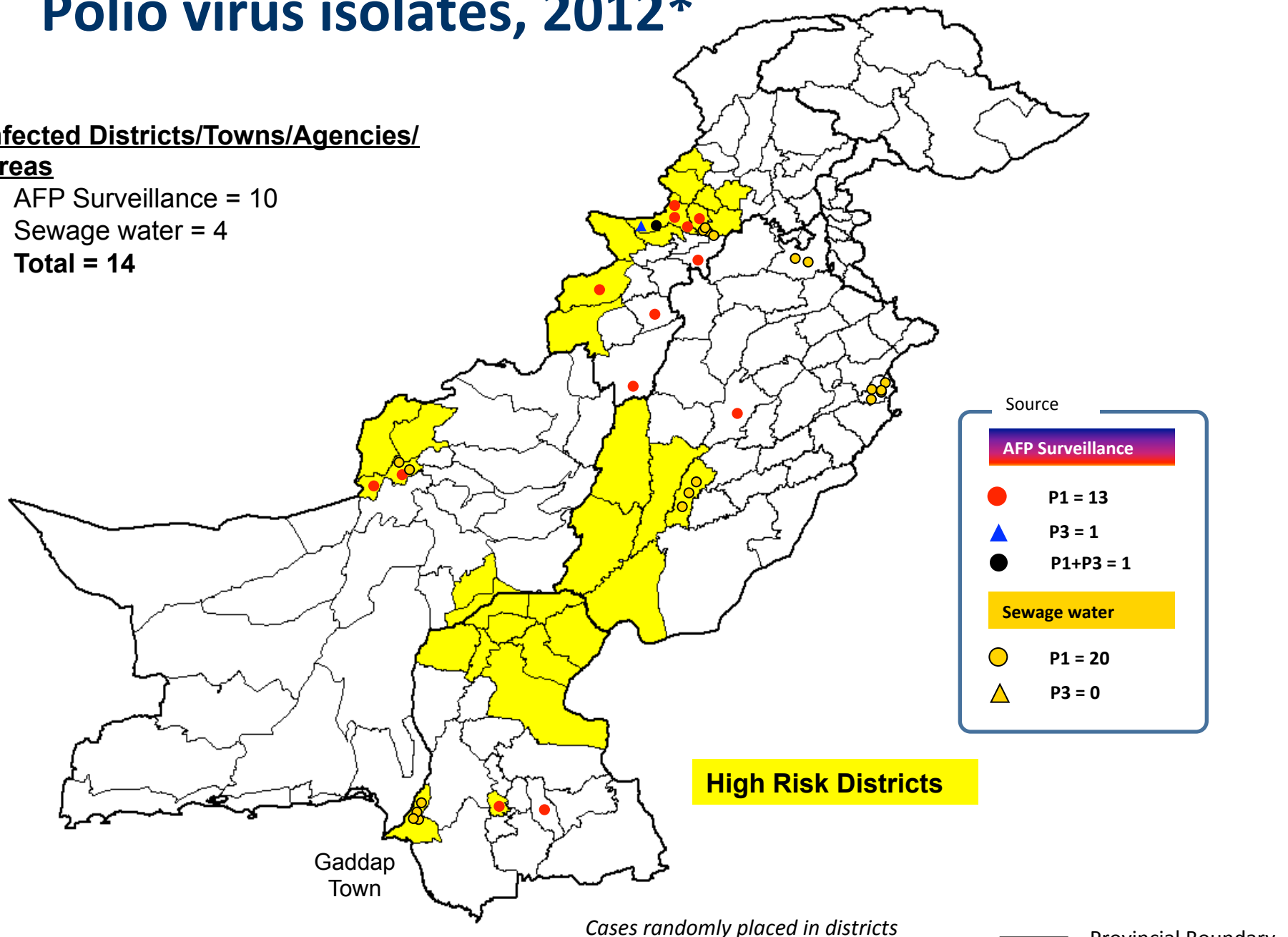
Percent Under Immunized Non-Polio AFP Cases (6 – 59 months), Pakistan, 2009-2012*



Polio virus isolates, 2012*

Infected Districts/Towns/Agencies/ Areas

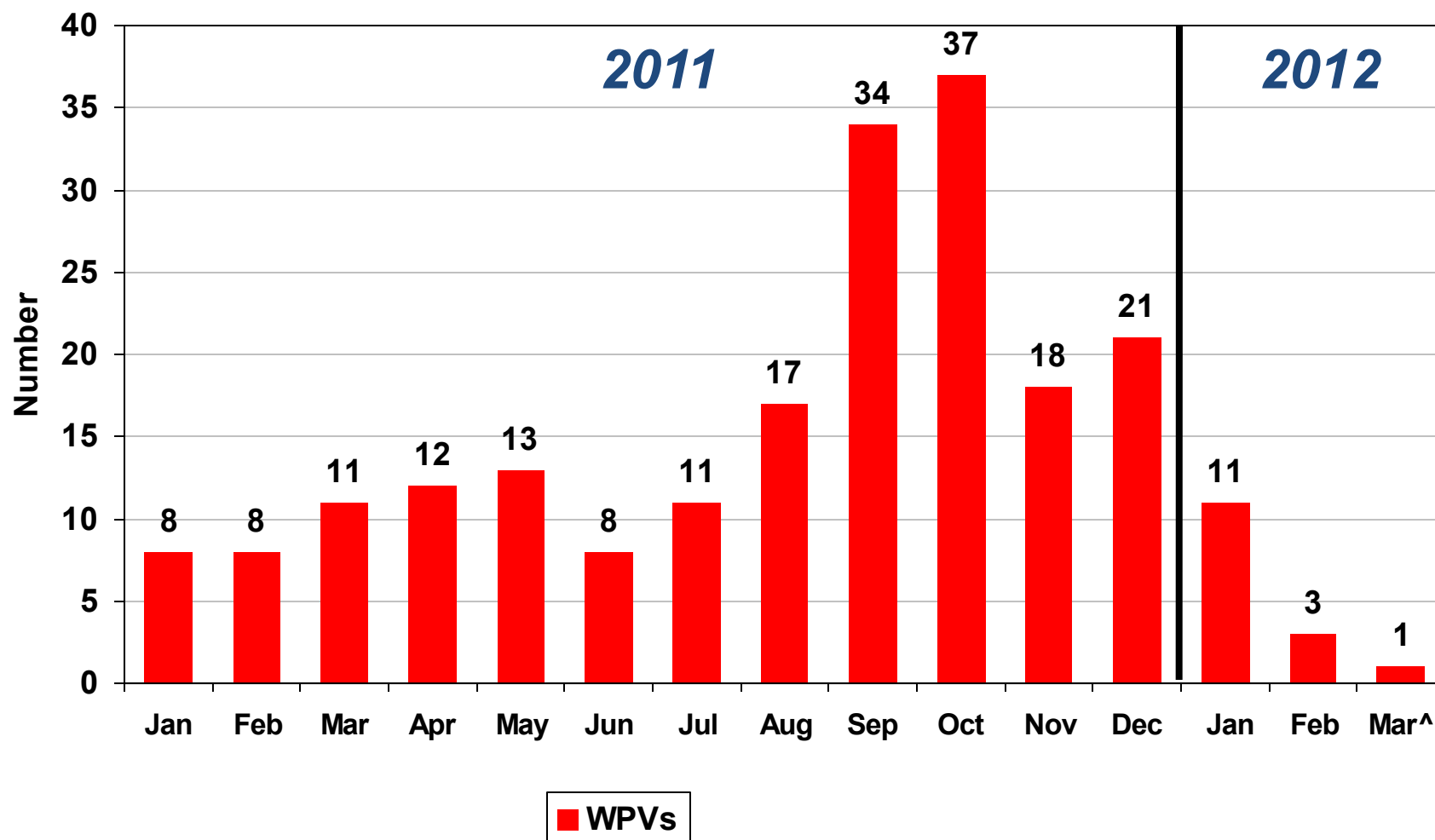
- AFP Surveillance = 10
 - Sewage water = 4
- Total = 14**



* Afp.rec Data as of 31-03-2012

Polio cases by month

2011-2012*



^110 stool specimens pending in the laboratory

** AFP Data as of 31-03-2012*

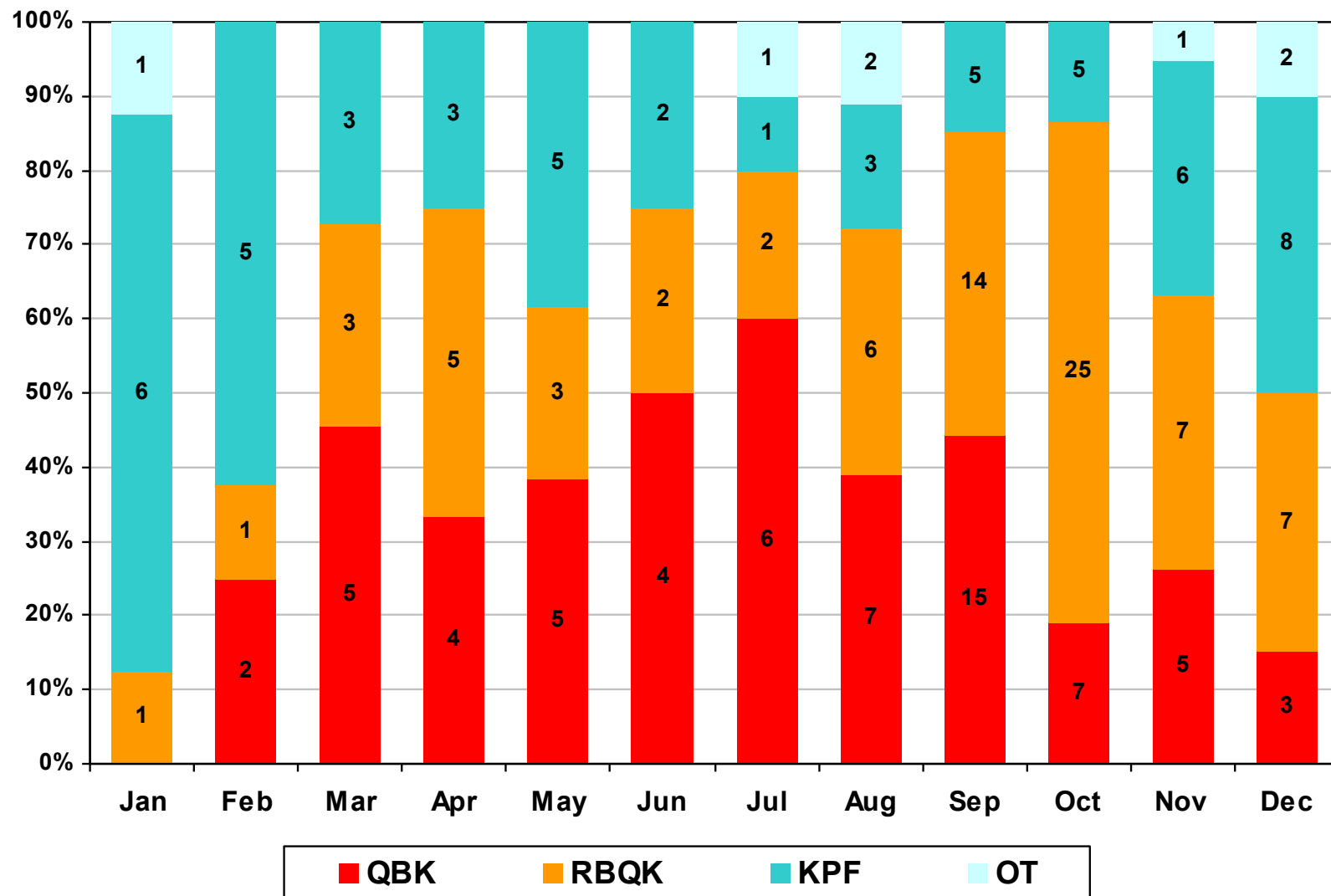
Overall Epidemiological Scenario

(Last 52 weeks)

- More 70% infected districts reported just one or 2 polio cases
 - 25% of the infected districts reported majority of the cases
- Some of the districts / agencies persistently reported polio cases
 - Some places like FATA (particularly Khyber Agency and North Waziristan) and southern KP continue reporting in 2012
- Sindh and Balochistan seem to have some improvement
 - Negative environmental samples in Baldia and Gushan-e-Iqbal towns & Quetta

Polio Cases by WPV Source

Pakistan - 2011



QBK = Quetta, Pishin, Kabbullah and Karachi
KPF = Related to KP and FATA

RBQK = Related to Quetta, Pishin, Kabbullah and Karachi
OT = Other

*Data as of 14-03-2012

Key Epidemiological Characteristics

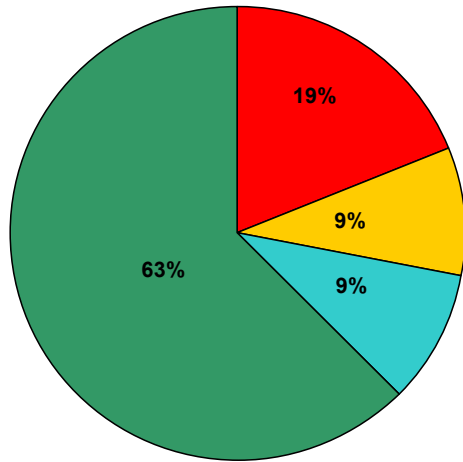
Polio Cases - 2011

- 71% cases below 2 years of age
- 77% Cases Pashto Speaking (**89% in Karachi**)
- Total reported refusals are <1% during most of the campaigns
 - Of the 198 polio cases; 23% are from 'refusal' families (**55% in Quetta Block**)

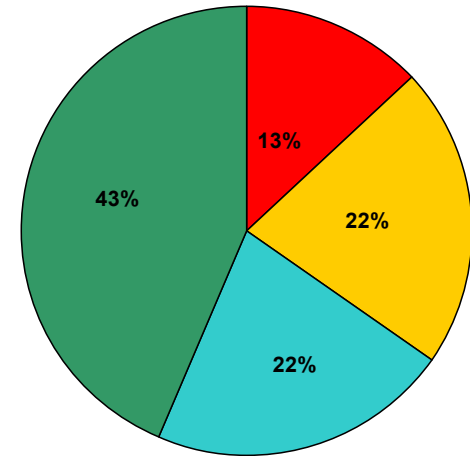
Vaccination status (based on recall)

- 31% cases reported no OPV dose
- 73% reported no routine OPV dose
- 26% reported 7 or more OPV doses

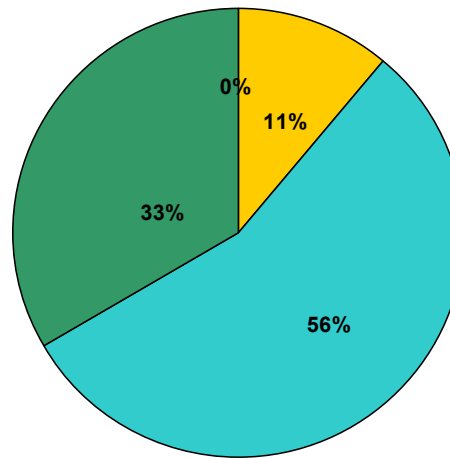
Vaccination status of polio cases by province, (R +SIAs) 2011



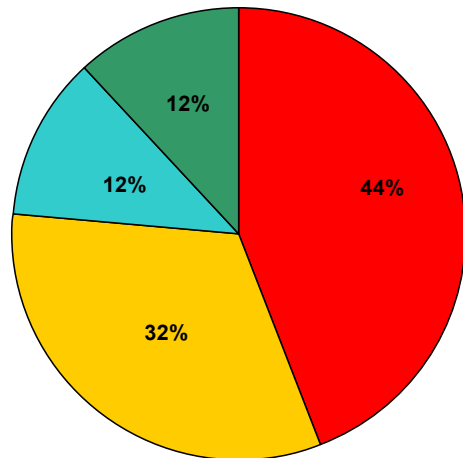
Sindh (33)



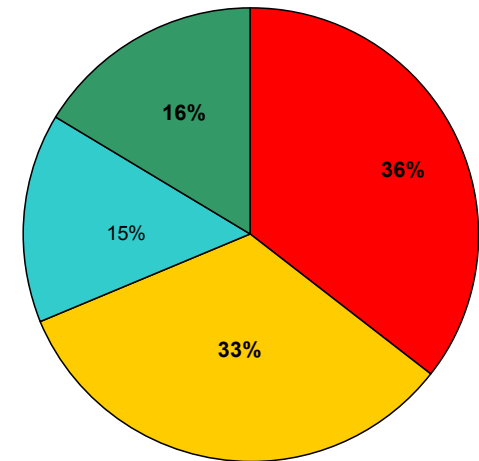
KP (23)



Punjab (09)



FATA (59)



Balochistan (73)

**1 Case from
Gilgit Baltistan Zero dose**

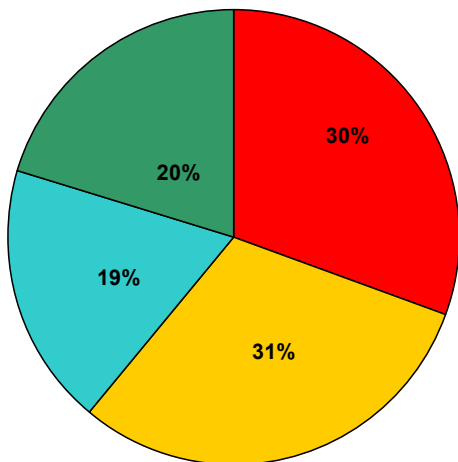
0 dose 1 - 3 doses 4 - 6 doses 7 + doses

Vaccination status[€] (Routine + SIAs) of Polio Cases by First Language, 2010-2011

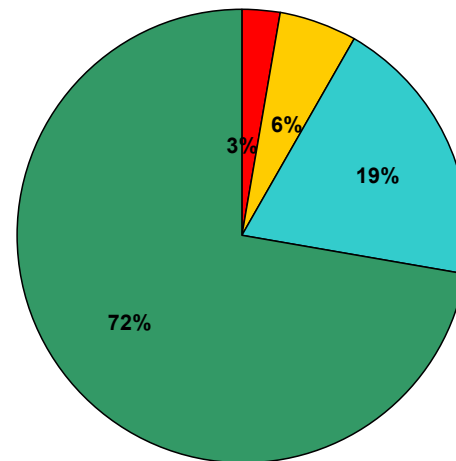
Pashto

Other Languages

2010

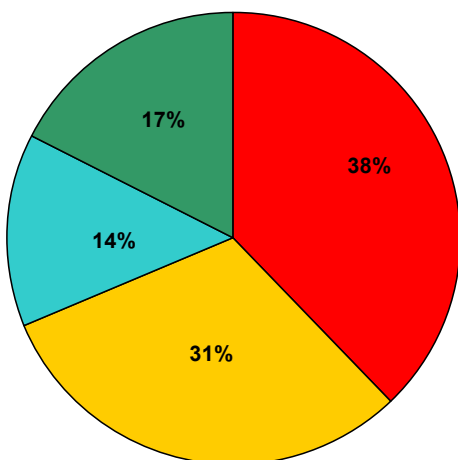


108

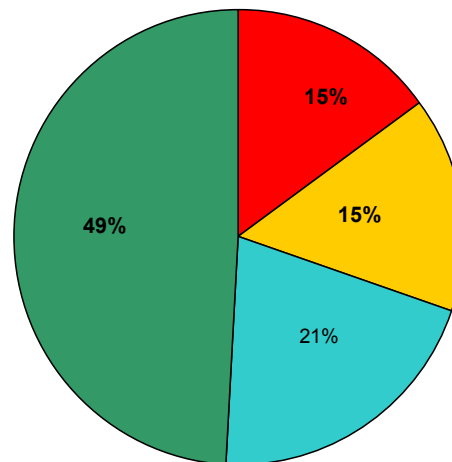


36

2011



144



53

0 dose 1 - 3 doses 4 - 6 doses 7 + doses

Insecurity

Polio Cases; FATA - 2011

Tribal Agency / F.R Areas	Total Polio Cases	Polio cases from Accessible Areas		Polio cases from Inaccessible Areas	
		n	%	n	%
Khyber	25	4	16	21	84
Mohmand	4	1	25	3	75
Bajour	2	2	100	0	0
N-Waz	14	11	79	3	21
Kurram	1	0	0	1	100
Orakzai	2	0	0	2	100
S-Waz	4	2	50	2	50
F.R Bannu	1	0	0	1	100
F.R L.Mar	2	2	100	0	0
F.R Kohat	4	0	0	4	100
FATA	59	22	37	37	63

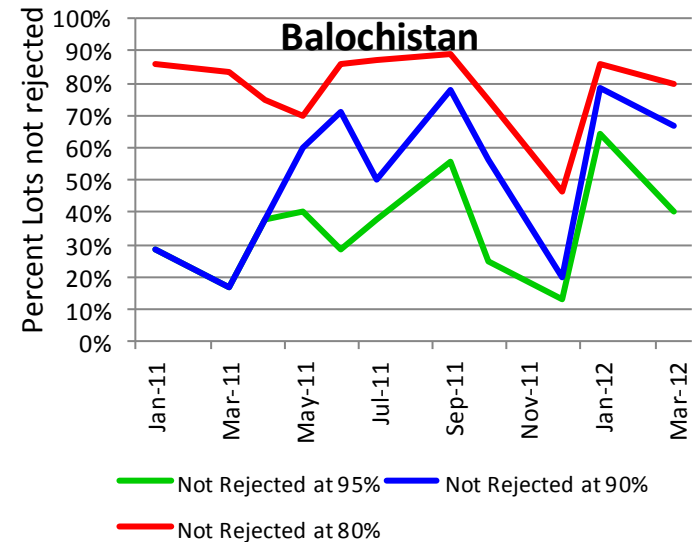
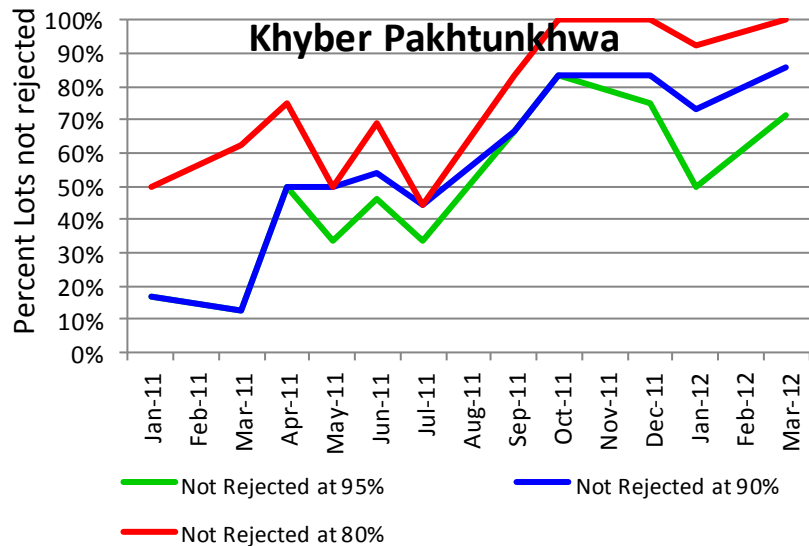
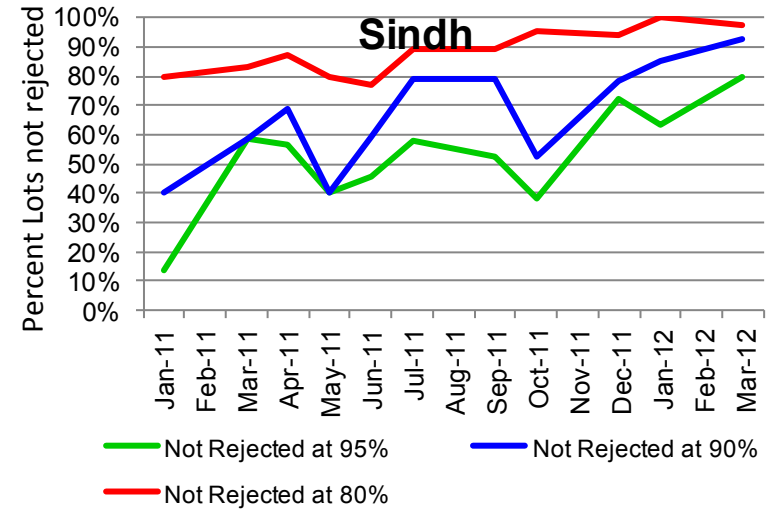
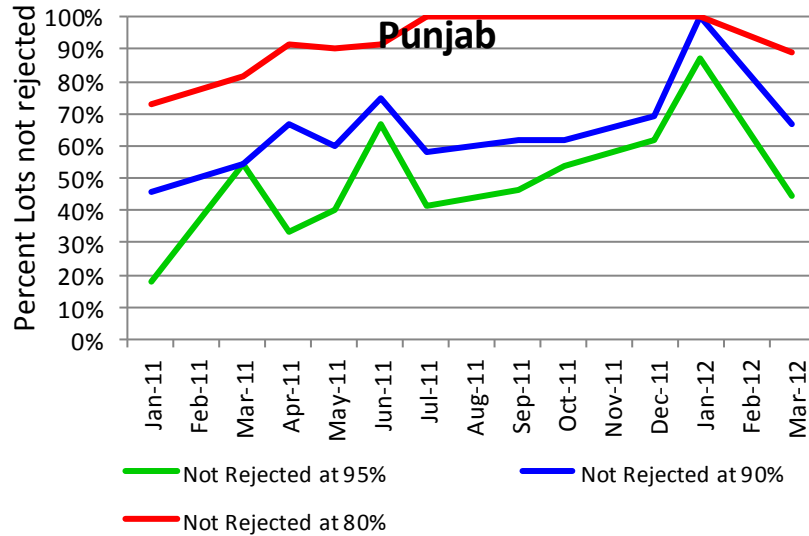
Remaining Unvaccinated Children after SIAs - 2011 *

SIAs	Children vaccinated	unvaccinated children					
		Number (#)			Percent (%)		
		Not available	Refusals	Total	Not available	Refusals	Total
Jan SNIDs	13,283,320	192,989	50,544	243,533	1.45%	0.38%	1.83%
Mar NIDs	31,435,147	474,954	63,035	537,989	1.51%	0.20%	1.71%
Apr SNIDs	16,757,889	284,591	56,713	341,304	1.70%	0.34%	2.04%
May NIDs	31,856,910	491,457	62,077	553,534	1.54%	0.19%	1.74%
Jun SNIDs	16,649,273	265,242	58,504	323,746	1.59%	0.35%	1.94%
Jul NIDs	30,586,932	488,079	48,725	536,804	1.60%	0.16%	1.76%
Sep SNIDs	19,383,130	367,077	67,331	434,408	1.89%	0.35%	2.24%
Oct NIDs	29,758,274	490,118	71,590	561,708	1.65%	0.24%	1.89%
Dec SNIDs	17,172,585	404,397	49,479	453,876	2.35%	0.29%	2.64%
Total	206,883,460	3,458,904	527,998	3,986,902	1.67%	0.26%	1.93%

* Reported (control room) data

Trend of lots not rejected in LQAS

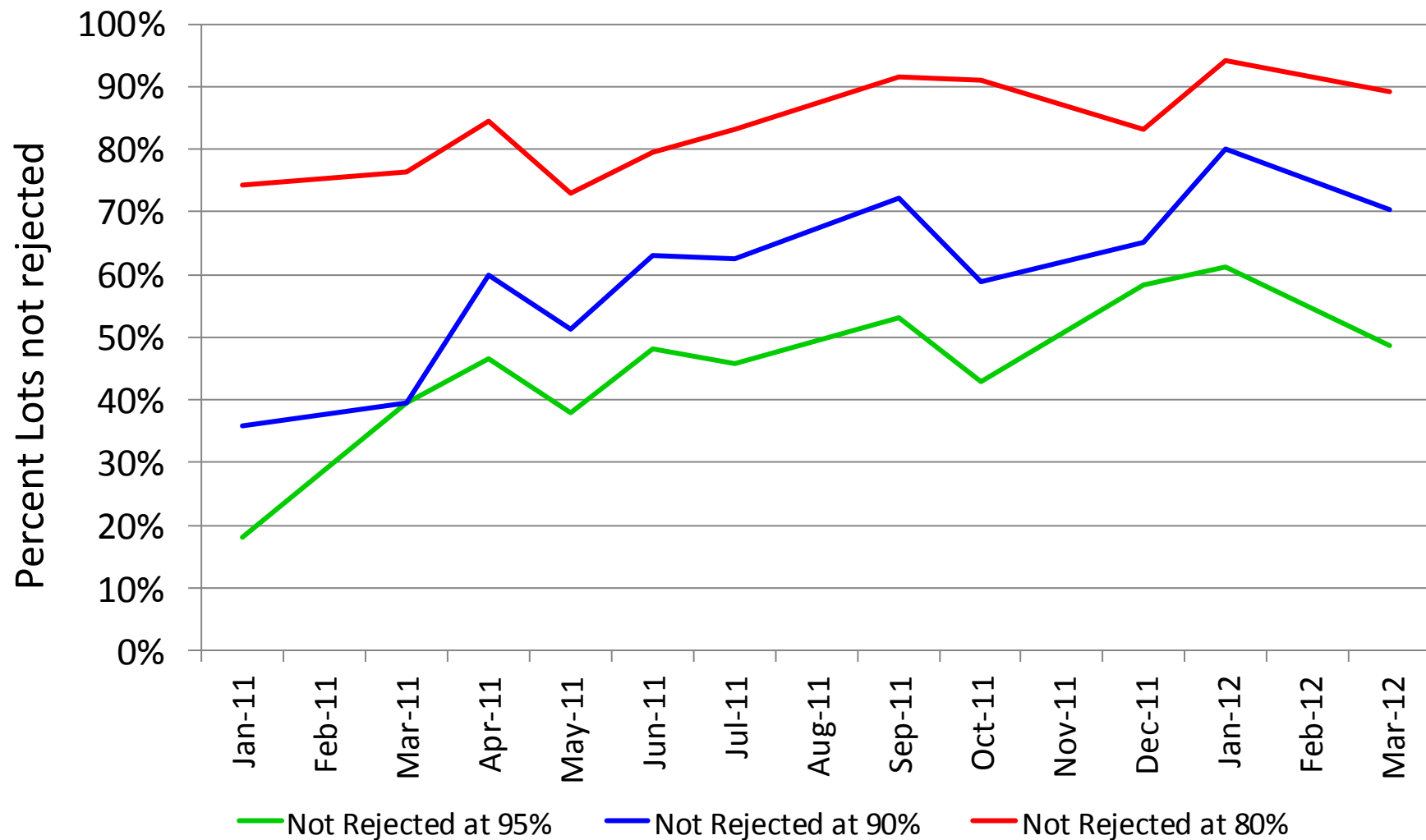
Jan 2011 to Mar 2012 *



* Data up till March 2012 SNIDs

Country level trend of lots not rejected in LQAS

*Jan 2011 to Mar 2012 **



* Data up till March 2012 SNIDs

TAG' s Conclusion – March 2012

The augmented NEAP provides a platform to take Pakistan to polio eradication

The challenge is to fully and consistently implement the NEAP

What is different

- **Change in the Paradigm**
- **Prime Minister nominated National Focal Persons for Polio Eradication**
 - *Provincial Focal Persons also nominated (Additional Secretary in Balochistan)*
- **Enhanced focus at the UC level**
 - UC MOs nominated in majority of the districts
 - 252 UCPWs (WHO), 198 UCOs & 500 SMs (UNICEF) onboard
- **Deputy Commissioners** authorized to lead the campaign and to be held accountable

What is different

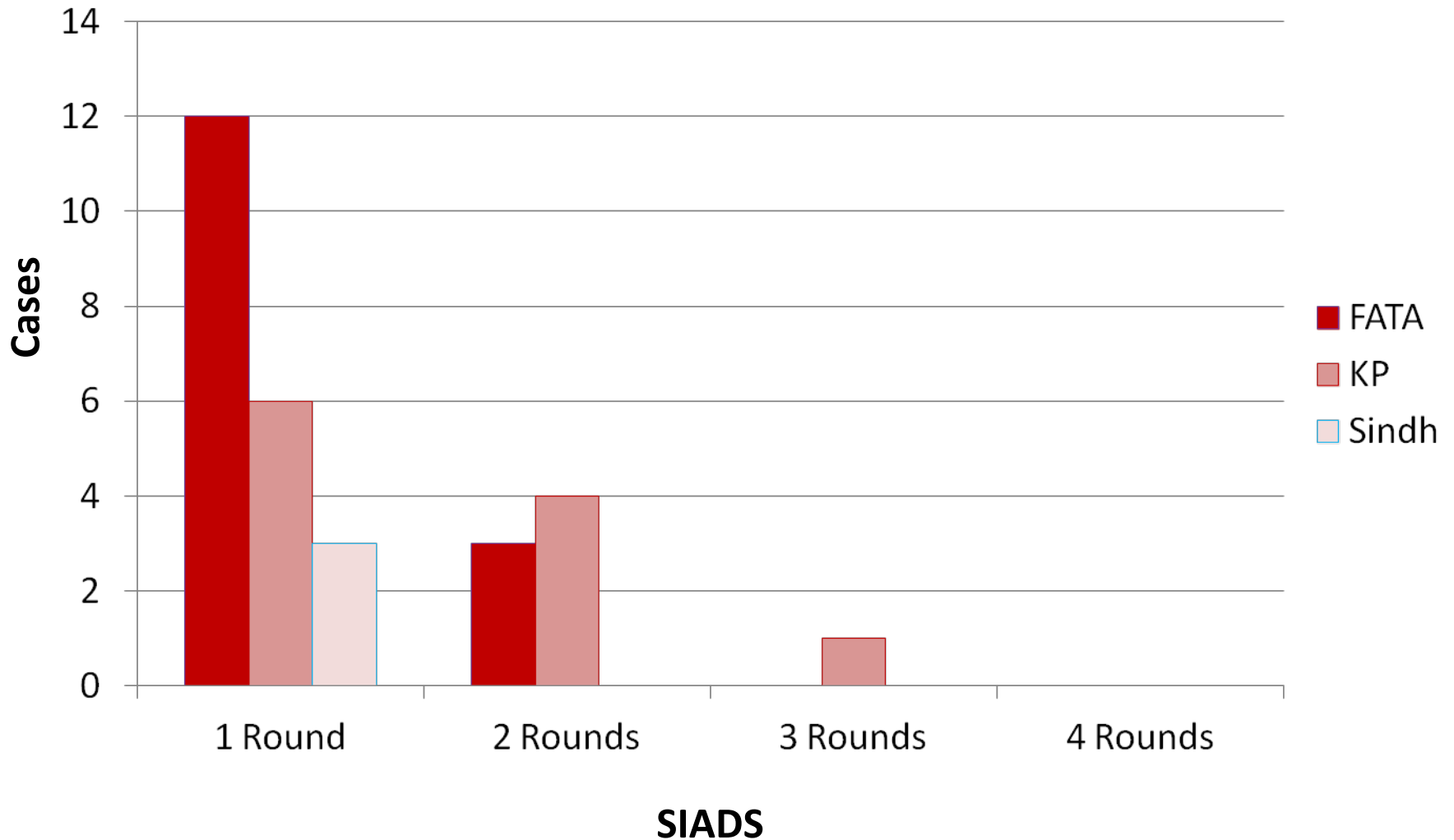
- **Quality preparation and implementation**
 - Functional DEPC and UPEC for monitoring
 - Deferment in case of inadequate preparations; *such as Quetta Block in December, Kashmore in January*
- **Outsourcing in areas with persistent failure**

Enhanced Activities among HR populations

Short Interval Additional Dose Strategy (SIADS) (May 2011 – Jan. 2012)

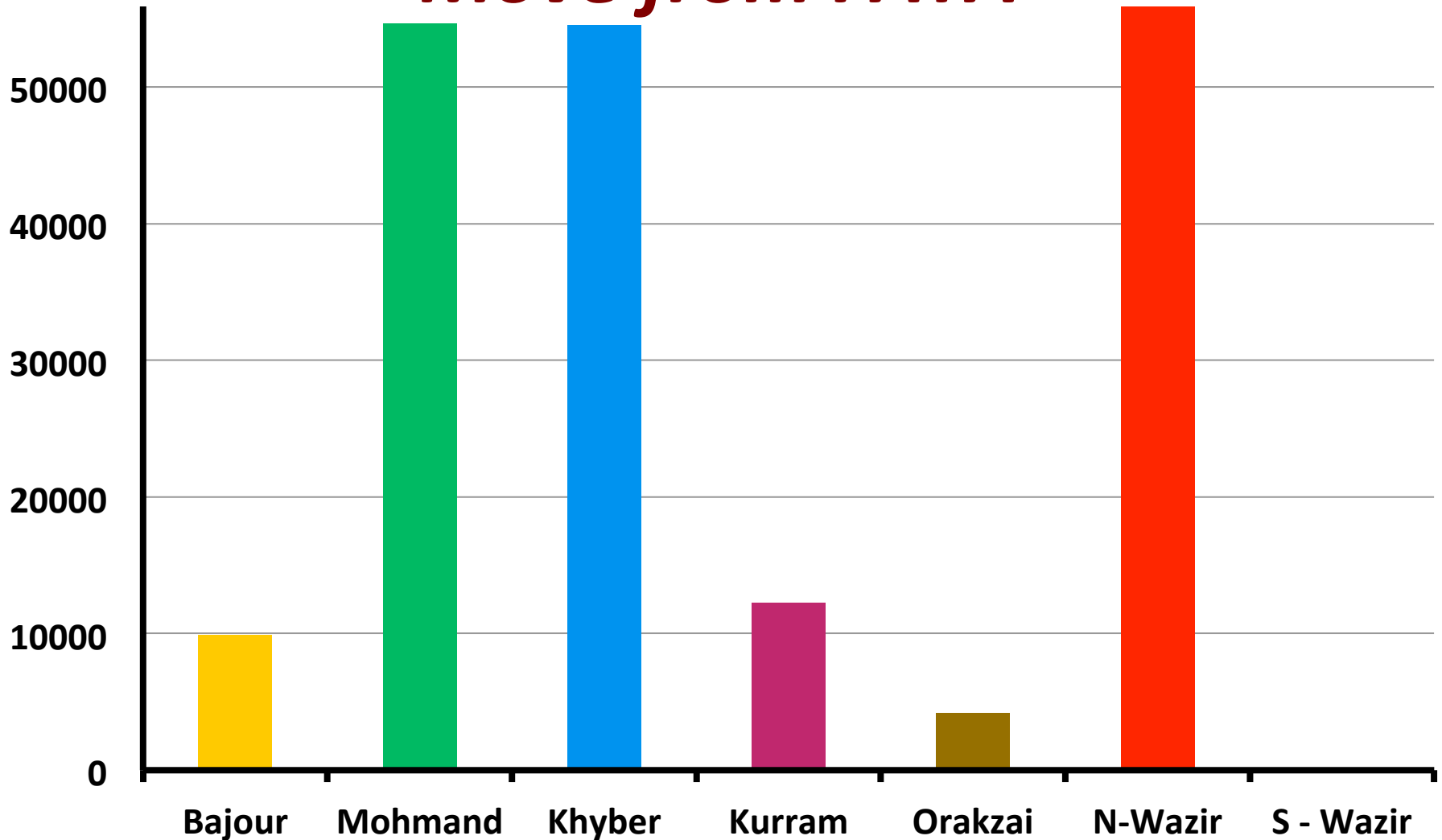
Province	No. of Districts where SIADS conducted	No. of UCs where SIADS conducted	Total no.of children Immunized		Average (PCM) Evaluation	
			Pass-1	Pass-2	Pass-1	Pass-2
Punjab	5	52	211,297	208,696	98	98
Balochistan	3	28	89,209	86,557	85	84
Sindh	22 districts + 16 towns	776	3,312,342	2,914,163	98	98
KP	25	541	2,397,278	2,729,913	97	96
FATA	6 agencies + 4 FRs	588	1,131,152	1,047,305	86	87
GB	2	19	66,798	67,966	91	Not evaluated
Islamabad	1	10	36,116	30,691	89	96
Total	58 districts +6 agencies + 16 towns + 4 FRs	2,014	7,244,192	7,085,291	90	92

Trend of Cases in infected UCs after SIADS



Utilizing all windows of Opportunities

*Transit Posts to cover the children on the
Move from FATA*



Utilizing all windows of Opportunities

***Vaccination of displaced population;
targeted age group inflated within camps***

Areas	Target Population <5 Years Old	Target Population 6-15 Years Old	Vaccinated Children		Coverage % <5 years old	Coverage % 6-15 years old
			<5 years old	6-15 years old		
IDPs Camp	6856	13712	7995	8199	117%	60%
UC Jalozei	6946	0	5439	0	78%	-
UC Dag Behsud	6831	0	5713	0	84%	-
UC Dag Ismail Khel	3084	0	2499	0	81%	-
Total	23717	13712	21646	8199	91%	60%

Summary

- There was intense circulation of WPV-1 in 2011; mainly in the persistent transmission zones
- WPV-3 transmission goes on in FATA; probably localized but constituting imminent risk of spread
- Remaining Risks / Challenges
 - *Maintaining the enhanced oversight & accountability*
 - *Out of the house children*
 - *Migrant populations*
 - *Insecurity*

Thank You

P1 **P3** **Mix**

PROV	DISTRICT	ENV	HRDS	LAST CASE	TOTAL CASES	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13
FATA	KHYBER	N	Y	11-Mar-12	23					1					1									2						1	2		1	1			2		1	1	1	2	2	2							1	1					
FATA	WAZIR-N	N	Y	10-Feb-12	15																			2					1	2		3	1	2			1	1			1	1	2	2	2												
SINDH	HYDERABAD	N	Y	27-Jan-12	2																			1																	1	1	1	2	2												
PUNJAB	JHANG	N	N	20-Jan-12	1																																																				
KP	LAKKIMRWT	N	N	16-Jan-12	2																																																				
KP	DIKHAN	N	N	11-Jan-12	1																																																				
KP	KOHAT	N	N	11-Jan-12	3																																																				
KP	PESHAWAR	Y	Y	10-Jan-12	5					1																																															
BALUCHISTAN	QUETTA	Y	Y	06-Jan-12	17												1			1																																					
SINDH	MIRPURKHAS	N	N	03-Jan-12	1																																																				
KP	CHARSADA	N	Y	28-Dec-11	1																																																				
PUNJAB	LAHORE	Y	N	24-Dec-11	1																																																				
SINDH	BADIN	N	N	19-Dec-11	2																																																				
KP	TANK	N	N	18-Dec-11	3																																																				
BALUCHISTAN	KABDULAH	N	Y	15-Dec-11	19						1		2		1					3		1			1	1		1		2	1																										
PUNJAB	VEHARI	N	N	12-Dec-11	2																																																				
PUNJAB	DGKHAN	N	Y	08-Dec-11	1																																																				
SINDH	THATTA	N	N	06-Dec-11	8		1										1											1																													
BALUCHISTAN	KHUZDAR	N	N	03-Dec-11	5					1							1				1																																				
PUNJAB	MUZFARGARH	N	Y	02-Dec-11	1																																																				
BALUCHISTAN	HARNAI	N	N	26-Nov-11	1																																																				
FATA	FR BANNU	N	N	24-Nov-11	1																																																				
BALUCHISTAN	PISHIN	N	Y	12-Nov-11	14		1					1			1	1					1				1			1	1		1	1	1	2																							
FATA	BAJOUR	N	Y	11-Nov-11	2																																																				
KP	BUNIR	N	N	11-Nov-11	3																																																				
SINDH-KHI	KHIBALDIA	Y	Y	10-Nov-11	2																																																				
PUNJAB	BAHAWALPUR	N	N	04-Nov-11	1																																																				
BALUCHISTAN	BARKHAN	N	N	29-Oct-11	1																																																				
KP	NOWSHERA	N	Y	28-Oct-11	2																																																				
BALUCHISTAN	MASTUNG	N	N	23-Oct-11	2																																																				
BALUCHISTAN	KSAIFULAH	N	N	20-Oct-11	2																																																				
FATA	FR KOHAT	N	N	19-Oct-11	2				1																																																
FATA	WAZIR-S	N	Y	17-Oct-11	4																																																				
KP	SWABI	N	N	14-Oct-11	1																																																				
PUNJAB	RYKHAN	N	Y	11-Oct-11	1																																																				
SINDH-KHI	KHIGIQBAL	Y	Y	10-Oct-11	1																																																				
SINDH	JACOBABAD	N	Y	09-Oct-11	1																																																				
SINDH	KASHMORE	N	Y	07-Oct-11	1																																																				
SINDH	KAMBAR	N	Y	05-Oct-11	2																																																				
BALUCHISTAN	LORALAI	N	N	30-Sep-11	3																																																				
SINDH-KHI	KHIGADAP	Y	Y	21-Sep-11	2		1																																																		
KP	DIRUPPER	N	N	19-Sep-11	1																																																				
SINDH-KHI	KHISITE	N	N	16-Sep-11	2						1																																														
PUNJAB	LODHAN	N	N	04-Sep-11	1																																																				
SINDH	UMERKOT	N	N	24-Aug-11	1																																																				
PUNJAB	OKARA	N	N	13-Aug-11	1																																																				
BALUCHISTAN	KALAT	N	N	10-Aug-11	1																																																				

AFP surveillance

P1 **P3** **Mix**

Environmental surveillance

Negative environmental sample

WPV cases by week (Last 52 weeks); FATA

AFP surveillance

P1 P3 Mix

DISTRICT	ENV	HRDS	LAST CASE	TOTAL CASES	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13
KHYBER	N	Y	11-Mar-12	23					1					1									2							1	2		1	1			2		1	1	1	2	2	2						1	1		1			
WAZIR-N	N	Y	10-Feb-12	15																				2					1	2		3	1	2		1	1		1								1									
FR BANNU	N	N	24-Nov-11	1																																	1																			
BAJOUR	N	Y	11-Nov-11	2																									1							1																				
FR KOHAT	N	N	19-Oct-11	2			1																											1																						
WAZIR-S	N	Y	17-Oct-11	4																1										1		1		1																						
MOHMAND	N	Y	05-Jul-11	2			1												1																																					
ORAKZAI	N	Y	15-Jun-11	2					1							1																																								
FATA	N	7	11-Mar-12	51			2		2					1	1			1		1			2	2					1	5	2	4	2	5		1	2	2	1	1	2	1	2	2	2					1	1	1		1		

1 case







2 cases

>3 cases

Environmental Surveillance

WPV Isolates by week - Pakistan (Jan 2011 to date)

[illegible]

-  Wild poliovirus type 1 (WPV1)
 Wild poliovirus type 3 (WPV3)
 No WPV Isolated
 Under process
 Scheduled sampling, sample not collected
 No sampling scheduled

SUMMARY

Total Sites = 18 (1 site is temporarily closed due to No Wild PV isolated from 1 year consecutive samples)

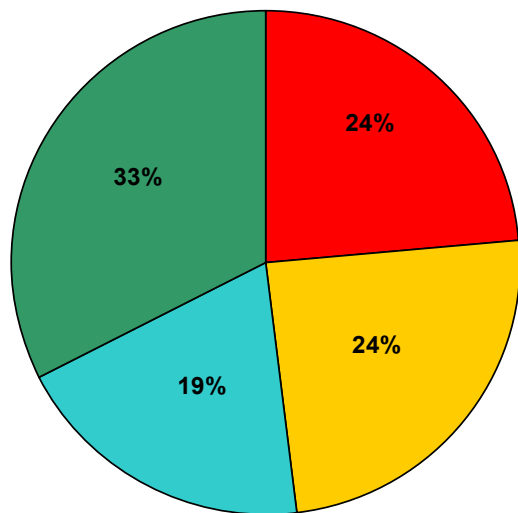
Total Samples Collected (2011-2012) = 245

Total Samples with results available = 228

Total samples positive for Wild PV (2011-2012) = 156 (WPV1= 156)

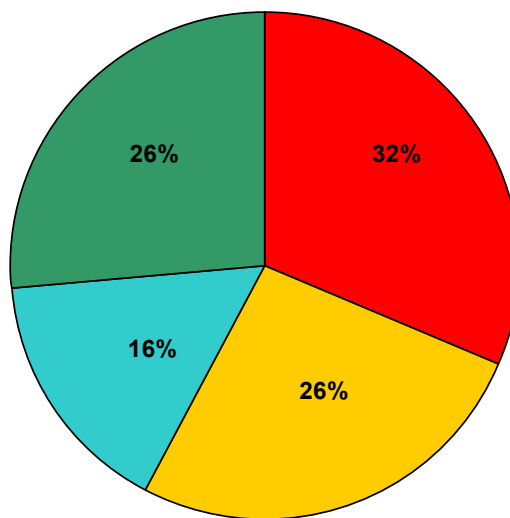
Vaccination status of polio cases, (R+SIAs) Pakistan 2010 -2012*

2010



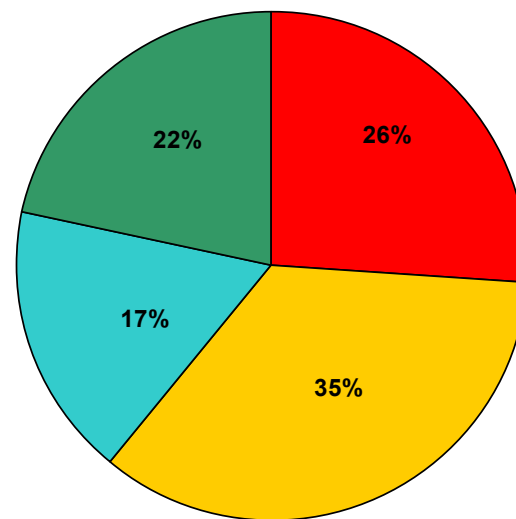
n =144

2011



n =198

2012*



n =15

■ 0 dose ■ 1 - 3 doses ■ 4 - 6 doses ■ 7 + doses

Country level trend of lots not rejected in LQAS

*Jan 2011 to Mar 2012 **

District	Tested at 95%												Tested at 90%												Tested at 80%											
	2011											2012	2011											2012	2011											2012
	Jan	Mar	Apr	May	Jun	Jul	Sep	Oct	Dec	Jan	Mar	Jan	Mar	Apr	May	Jun	Jul	Sep	Oct	Dec	Jan	Mar	Jan	Mar	Apr	May	Jun	Jul	Sep	Oct	Dec	Jan	Mar			
KAbdulah																																				
Pishin																																				
Quetta																																				
Total Lots	5	4	4	3	3	3	3	5	10	7	9	5	4	4	3	3	3	3	5	10	7	9	5	4	4	3	3	3	3	5	10	7	9			
% not rejected	40%	25%	50%	33%	33%	33%	33%	0%	0%	57%	44%	40%	25%	50%	33%	33%	33%	67%	20%	0%	71%	67%	80%	100%	75%	33%	67%	100%	67%	60%	20%	71%	78%			

Lot Quality Assurance Sampling (LQAS)

Oct. 2011 – Mar. 2012

