



**World Health
Organization**

**Weekly
AFP Surveillance Update
Pakistan**

Week 48 (*Ended on 1st Dec, 2018*)

National Surveillance Cell

World Health Organization Country Office,
Chak Shahzad, Park Road,
Islamabad, Pakistan

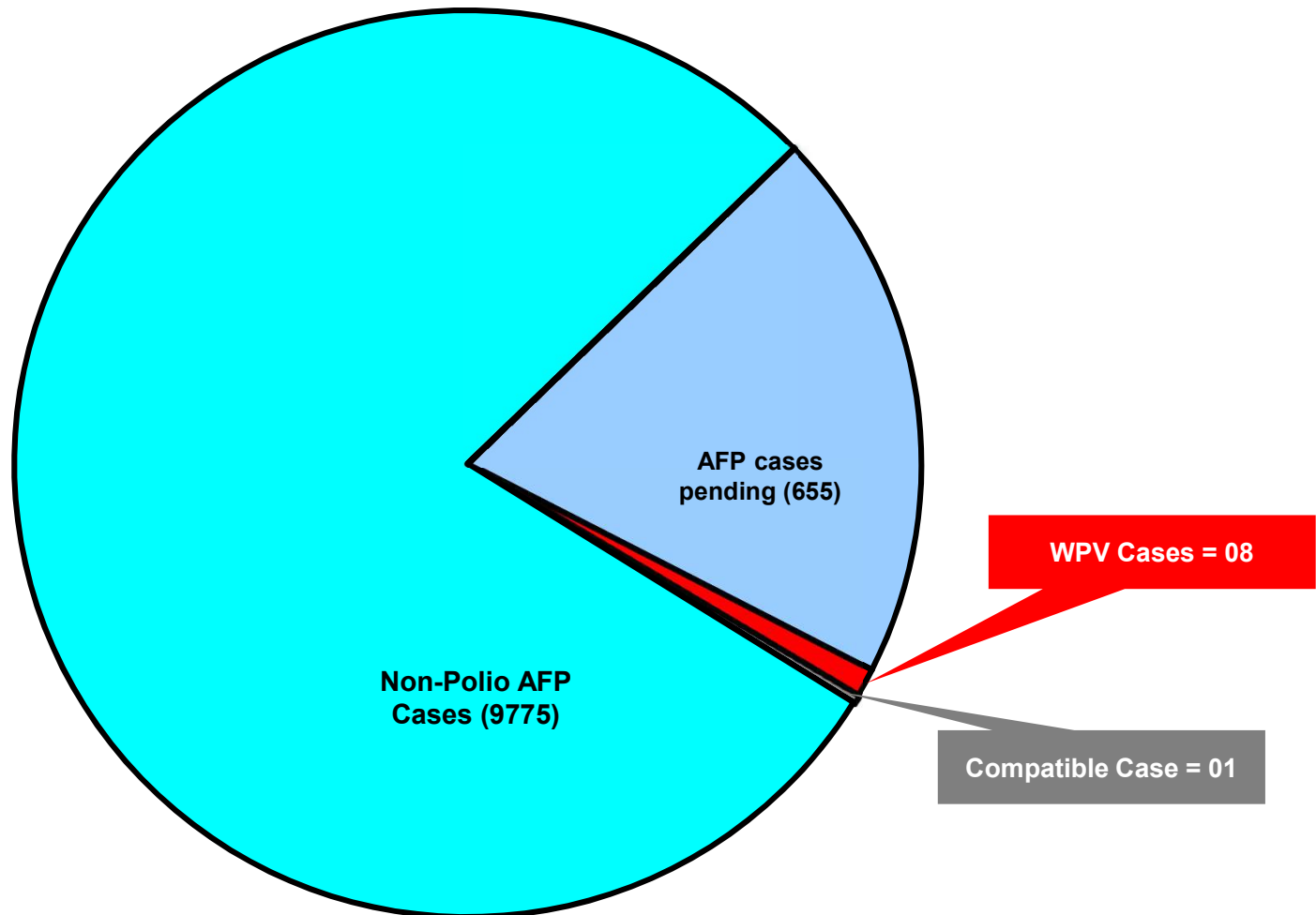
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AFP Surveillance



<http://www.emro.who.int/pak/information-resources>

AFP Case Profile, 2018*



Total AFP Cases Reported = 10439

^ 292 Inadequate cases not due for FUP

^363 AFP Cases pending in Lab

^108 AFP Cases pending for classification by ERC

* Afp.rec Data as of 03-12-2018

Table 1.1: List of Confirmed Polio Cases, Pakistan 2018*

S. NO.	PROVINCE/ REGION	DISTRICT	TEHSIL	EPID NO.	SEX	AGE (m)	DATE ONSET OF PARALYSIS	NO. OPV DOSES (based on parents recall)		FEVER	Asymptomatic Paralysis	Rapid Progression	REFUSAL	WPV TYPE	GENETICS
								Routine	SIA's						Cluster
01	BALUCHISTAN	DUKI	DUKI	BN/65/18/003	M	38	08-Mar-18	0	7+	Y	Y	Y	N	NSL1	R4B5C4
02	BALUCHISTAN	DUKI	DUKI	BN/65/18/005	F	18	15-Apr-18	0	7	Y	Y	Y	N	NSL1	R4B5C4D
03	BALUCHISTAN	DUKI	DUKI	BN/65/18/007	M	18	18-May-18	0	3	Y	Y	Y	N	NSL1	R4B5C4D
04	KPAKHTUNKHW	CHARASADA	CHARASADA	KP/31/18/100	M	19	1-Aug-18	3	7+	Y	Y	Y	N	NSL1	R4B5C5B2
05	SINDH	KHIGADAP	GADAP	SD/63/18/041	F	42	22-Sep-18	3	7+	Y	Y	Y	N	NSL1	R4B5C4D
06	KPTD	KHYBER	LANDI KOTAL	TD/34/18/104	F	55	25-Sep-18	0	7	N	Y	Y	N	NSL1	R4B5C5B2
07	KPTD	BAJOUR	WARA MAMOUND	TD/33/18/085	M	84	24-Sep-18	3	7+	Y	N	Y	N	NSL1	R4B5C4D
08	KPTD	BAJOUR	LEO MAMOUND	TD/33/18/094	F	66	07-Oct-18	3	7+	Y	Y	Y	N	NSL1	R4B5C4D

* Afp.rec Data as of 03-12-2018

Table 3: Urgent/ITD Pending Cases (Page 1/2)

S. #	District	Tier	Tehsil	Basic information					OPV/IPV doses				Urgent		Prov Diagnosis	Lab update			Remarks			
				Union council	Epid number	Date of Onset	Age (M)	Sex	Date of 1st stool	Stool Adeq	RI	SAs	Last 6 SAs	Last dose		IPV	Field	NSC		Lab No.	Days Incub	Culture update
Isolates pending for ITSD																						
1	JAFARABAD *	3	GANDAKHA	SHAHAN PATEL	BN/43/18/026	06-Nov-18	20	F	17-Nov-18	Y	3	7+	6	25-Sep-18	#	N	N	ACUTE CHILDHOOD HEMIPLEGIA / POST	14063	4	L20B+	
2	BATAGRAM *	4	ALLAI	BATKOOT	KP/11/18/039	13-Nov-18	48	M	16-Nov-18	Y	3	7+	6	26-Sep-18	#	N	N	ARTHRITIS	14056	4	L20B+	
3	KURRAM *	2	CENTRAL KURRAM	JOGI	TD/52/18/033	14-Nov-18	17	M	23-Nov-18	Y	UK	7+	6	26-Sep-1918	N	N	N	RIGHT SIDE HEMIPLEGIA	14367	5	L20B+	
4	LAHORE *	3	SAMANABAD TOWN	UC-90	PB/31/18/362-C3		11	M	24-Nov-18	-	-	-	13-Nov-1918	N	N	-	-		14332	5	L20B+	
5	FAISALABAD *	4	FSD CITY	UC 197	PB/51/18/236	10-Nov-18	1	F	18-Nov-18	Y	0	1	1		N	N	N	MONOPARESIS/TRAUMATIC NEURITIS	14140	10	L20B+	
6	JHANG *	4	SHORKOT	UC-129	PB/53/18/101	16-Nov-18	4	M	19-Nov-18	Y	3	7	1	09-Nov-18	N	N	N	RI HEMIPLEGIA FACIAL PALSY /	14155	4	L20B+	
7	SUJAWAL		JATI	G.M BARAN	SD/79/18/124	14-Nov-18	13	M	22-Nov-18	Y	0	7+	6	12-Nov-18	N	N	N	GBS	14237	4	L20B+	
8	KHIGADAP	1	GADAP	SONGAL-5	SD/63/18/052-C2		36	M	20-Nov-18	-	-	-	14-Nov-18	N	N	-	-		14257	4	L20B+	
9	KHIGADAP	1	GADAP	SONGAL-5	SD/63/18/052-C3		10	M	20-Nov-18	-	-	-	14-Nov-18	N	N	-	-		14258	3	L20B+	
10	KAMBAR *	2	SUJAWAL	DIGANO	SD/55/18/119-C1		58	M	19-Nov-18	-	-	-		-	N	-	-		14166	10	L20B+	
11	KHIORANGI *	4	ORANGI	MOMINABAD-1	SD/75/18/040	07-Nov-18	58	M	17-Nov-18	Y	3	7+	6	24-Sep-1918	N	N	N	MYOSITIS	14135	10	L20B+	
12	NFEROZ *	4	#	#	SD/45/18/046	20-Nov-18	6	F	22-Nov-18	N	#	#		13-Nov-1918	#	N	#	*	14216	7	L20B+	
Reported urgent (by field / NSC criteria)																						
13	KECH *	4	BUUDA	MENAZ	BN/61/18/011	18-Nov-18	3	M	21-Nov-18	Y	2	1	1	15-Oct-1918	N	Y	N	ACUTE CHILDHOOD HEMIPLEGIA	14214	8	UP	
14	ZIARAT *	4	SANJAVI	AGBARGH	BN/32/18/007	17-Nov-18	120	F	26-Nov-18	Y	0	7	0		Y	Y	N	POLIOMYELITIS	14451	5	UP	
15	DIAMER *		CHILAS	THORE HUDUR	GB/31/18/026	11-Nov-18	18	F	15-Nov-18	Y	0	1	1	24-Sep-1918	N	Y	N	HYPOKALEMIA	14018	12	UP	
16	LAHORE *	3	SAMANABAD TOWN	UC-90	PB/31/18/362	03-Nov-18	36	M	27-Nov-18	N	3	7+	5	25-Sep-1918	Y	N	N	GBS	14447	4	UP	Index of C-3
17	FAISALABAD *	4	FSD CITY	UC 241	PB/51/18/238	14-Nov-18	1	M	18-Nov-18	Y	3	7+	6	13-Nov-1918	N	Y	N	HYPOKALEMIC PARALYSIS	14169	11	UP	

* New addition § New results #Data not available ¶ NSC Criteria = Fever, Rapid Progress, Age < 48 months and OPV Doses < 7 UP = Under process
 Urgent (Field/NSC) / Inadequate specimens / Age 12-35 months / Zero OPV dose † Pending for genomic sequencing

Table 3: Urgent/ITD Pending Cases (Page 2/2)

S. #	Basic information										OPV/IPV doses				Urgent		Prov Diagnosis	Lab update			Remarks	
	District	Tier	Tehsil	Union council	Epid number	Date of Onset	Age (M)	Sex	Date of 1st stool	Stool Adeq	RI	S/As	Last 6 S/As	Last dose	IPV	Field		NSC	Lab No.	Days Inoc		Culture update
18	FAISALABAD *	4	FSD CITY	UC 258	PB/51/18/241	10-Nov-18	1	F	22-Nov-18	Y	0	0	1	24-Sep-1918	N	Y	N	TRAUMATIC NEURITIS	14345	6	UP	
19	KHIGADAP	1	GADAP	SONGAL-5	SD/63/18/052	01-Oct-18	18	M	16-Nov-18	N	3	7+	5	22-Sep-18	N	N	N	traumatic neuritis	13841	14	UP	Index of C-2 and C-3
20	KAMBAR *	2	SUJAWAL	DIGANO	SD/55/18/119	16-Oct-18	72	M	17-Nov-18	N	3	7+	6	24-Sep-18	N	N	N	CVA	14142	10	UP	Index of C-1
21	KHIGULBERG *	4	GULBERG	AYESHA	SD/64/18/019	12-Nov-18	23	F	16-Nov-18	Y	3	7	5	26-Oct-1918	N	Y	N	HYPOKALEMIA	13971	12	UP	

* New addition

§ New results

#Data not available

≠ NSC Criteria = Fever, Rapid Progress, Age < 48 months and OPV Doses <7

UP = Under process

Urgent (Field/NSC) / Inadequate specimens / Age 12-35 months / Zero OPV dose

UPending for genomic sequencing

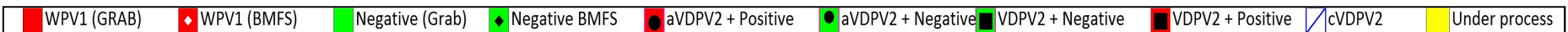
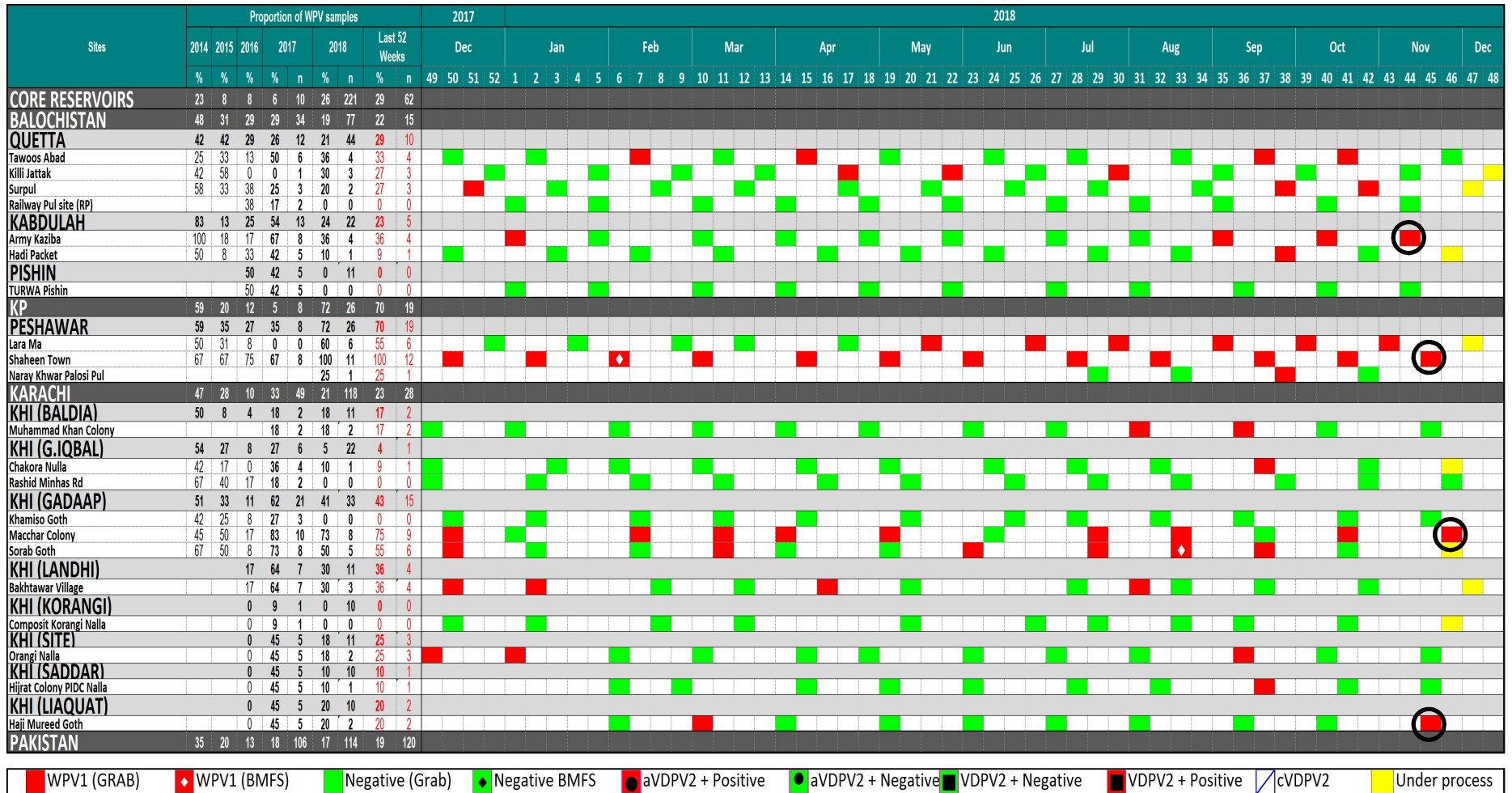
Point in time comparison of Polio Cases by Province/Region 2017 - 2018*

Region/ Province	No. of polio cases		No. of infected districts/towns		Most recent polio case
	2017	2018	2017	2018	
Balochistan	3	3	2	1	18-May-18
Sindh	2	1	2	1	22-Sept-18
Khyber Pakhtunkhwa	1	1	1	1	1-Aug-18
KP-TD	0	3	0	2	7-Oct-18
G-Baltistan	1	0	1	0	13-Feb-17
Punjab	1	0	1	0	28-Jan-17
Pakistan	8	8	7	5	7-Oct-18

Twenty two additional districts / towns declared infected based on environmental samples in 2018

* Afp.rec Data as of 03-12-2018

Environmental Surveillance Results, Pakistan (Last 52 Weeks)



Environmental Surveillance Results, Pakistan (Last 52 Weeks)

Sites	Proportion of WPV samples							2017												2018																																						
	2014	2015	2016	2017	2018	Last 52 Weeks		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																																						
	%	%	%	%	n	%	n	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	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
REST OF CORE RESERVOIR:	23	8	8	6	10	13	508	14	58																																																	
PUNJAB	23	8	8	6	10	13	187	13	25																																																	
LAHORE	40	7	5	2	1	17	9	17	10																																																	
Gulshan Ravi Station	33	0	9	0	0	0	0	0	0																																																	
Multan Road Station	17	17	8	9	1	0	0	0	0																																																	
Outfall Pump Station F	50	8	8	0	0	18	2	17	2																																																	
Outfall Pump Station G	50	9	0	0	0	18	2	17	2																																																	
Outfall Pump Station H	50	0	0	0	0	45	5	42	5																																																	
MULTAN	6	11	6	3	1	0	0	0	0																																																	
Ali Town	9	8	0	0	0	0	0	0	0																																																	
Kotla A. Fateh	8	18	0	0	0	0	0	0	0																																																	
Sural Miiani	0	8	17	8	1	0	0	0	0																																																	
DG KHAN	0	0	0	0	9	22	0	2	0																																																	
Sabzi Mandi	0	0	0	0	0	0	0	0	0																																																	
Main Disposal	0	0	0	0	18	2	17	2	0																																																	
Wagar Canteen Disposal	0	0	0	0	0	0	0	0	0																																																	
FAISALABAD	0	0	6	0	0	22	0	0	0																																																	
Pump Station 03	0	0	17	0	0	0	0	0	0																																																	
Pump Station 36	0	0	0	0	0	0	0	0	0																																																	
SARGODHA	0	0	0	0	11	0	0	0	0																																																	
Silanwali	0	0	0	0	0	0	0	0	0																																																	
BAHAWALPUR	0	0	0	0	11	0	0	0	0																																																	
Lal Bagh & Tibba Bahadur	0	0	0	0	0	0	0	0	0																																																	
RAJANPUR	0	0	0	0	11	0	0	0	0																																																	
Aqil Pur and Aslam town	0	0	0	0	0	0	0	0	0																																																	
RAWALPINDI	41	19	17	35	8	59	22	54	13																																																	
Dhok Dallal	50	31	8	17	2	55	6	50	6																																																	
Safdarabad	33	8	25	55	6	64	7	58	7																																																	
ISLAMABAD	18	0	45	5	64	11	58	7	0																																																	
CDA	18	0	45	5	64	11	0	7	0																																																	
Sabzi Mandi	18	0	45	5	64	7	58	7	0																																																	
SINDH	47	28	10	33	49	6	185	12	9																																																	
HYDERABAD	58	17	6	0	0	9	11	0	0																																																	
Tulsidas P. Station	58	17	7	0	0	9	1	8	1																																																	
JACOBABAD	57	45	25	36	4	27	11	33	4																																																	
Seddar Pumping Station	57	45	25	36	4	27	3	33	4																																																	
SUKKUR	21	25	12	9	2	9	22	8	2																																																	
Makka P.Station	25	17	23	9	1	18	2	17	2																																																	
Miani P.Station	17	33	0	9	1	0	0	0	0																																																	
DADU	0	0	0	0	11	0	0	0	0																																																	
Massan Malla	0	0	0	0	0	0	0	0	0																																																	
SANGHAR	0	0	0	0	1	0	0	0	0																																																	
Dhak Paro	0	0	0	0	0	0	0	0	0																																																	
KAMBAR	9	1	27	11	25	3	0	0	0																																																	
Bago Road and Baqirabad	0	0	9	1	27	3	25	3	0																																																	
KP	59	20	12	5	8	17	77	15	15																																																	
DI Khan	8	8	2	0	0	22	0	0	0																																																	
Composite:Bus Stand & MODC Drain	0	0	0	0	0	0	0	0	0																																																	
Composite:Sherpao & Zafar Abad Drain	0	0	0	0	0	0	0	0	0																																																	
BANNU	20	10	18	2	0	0	0	0	0																																																	
Hinjral Noorabad	20	2	18	2	0	0	0	0	0																																																	
KOHAT	45	12	45	5	45	5	0	0	0																																																	
Faqirabad	45	5	45	5	0	0	0	0	0																																																	
CHARSADA	0	0	0	15	11	27	4	0	0																																																	
Composit Shahjahan and Majoki	0	0	0	0	0	0	0	0	0																																																	
MARDAN	0	0	0	19	11	7	2	0	0																																																	
Composit Chak and Parhoti	0	0	0	18	2	17	2	0	0																																																	
NOWSHERA	0	0	0	20	11	18	2	0	0																																																	
Mill Colony	0	0	0	20	2	18	2	0	0																																																	
BALOCHISTAN	48	31	29	29	34	7	33	6	2																																																	
KHUZDAR	0	0	0	0	11	0	0	0	0																																																	
Katan Pul	0	0	0	0	0	0	0	0	0																																																	
LORALAI	0	25	3	20	11	18	2	0	0																																																	
Rasala line	0	25	3	20	2	18	2	0	0																																																	
ZHOB	0	9	1	0	11	0	0	0	0																																																	
Gani Muhalla	0	9	1	0	0	0	0	0	0																																																	
KPTD	36	15	0	0	0	0	0	0	0																																																	
WAZIR-S	0	8	0	0	0	0	0	0	0																																																	
Konra china & Spaista	0	0	0	0	0	0	0	0	0																																																	
BAJOUR	71	7	71	5	0	0	0	0	0																																																	
Chagori & Sohailabad	71	5	71	5	0	0	0	0	0																																																	
PAKISTAN	35	20	13	18	106	17	114	19	120																																																	

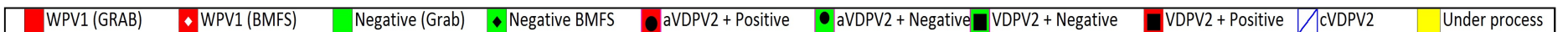


Table 2: LAB Update 2018*

Month of Onset	AFP Cases	No virus isolated	Cases Under Process		Isolated Viruses from stools						
			Culture	ITD	Vaccine viruses		NPEV		Wild	Results within 14 days	
	n	n	n	n	n	%	n	%	n	n	%
January	1010	843	0	0	76	8	91	9%	0	1010	100%
February	894	715	0	0	74	8	105	12%	0	894	100%
March	968	767	0	0	28	3	172	18%	1	967	100%
April	983	735	0	0	31	3	217	22%	1	983	100%
May	993	721	0	0	30	3	241	24%	1	992	100%
June	783	583	0	0	18	2	182	23%	0	783	100%
July	927	587	0	0	27	3	313	34%	0	927	100%
August	979	618	0	0	38	4	322	33%	1	978	100%
September	1023	667	5	0	62	6	287	28%	3	1016	99%
October	1011	752	21	2	17	2	220	22%	1	989	98%
November	697	250	366	9	26	4	61	9%	0	337	48%
Pakistan	10268	7238	392	11	427	4	2211	22%	8	9876	96%

* Data as of Dec 03, 2018

Comparison of Environmental Sampling Results, 2017-18*

DISTRICT	2017					2018					Last
	TOTAL	WILD			TOTAL	WILD					
	n	GRAB n	BMFS n	TOTAL n %	n	GRAB n	BMFS n	TOTAL n %			
LAHORE	57			0 0%	54	9		9 17%	12-Nov-18		
MULTAN	34	1		1 3%	32			0 0%	9-Jan-17		
DGKHAN	33			0 0%	23	1	1	2 9%	12-Sep-18		
RAWALPINDI	24	6	2	8 33%	23	12	1	13 57%	10-Nov-18		
FAISALABAD	22			0 0%	21			0 0%	2-Jul-16		
SARGODHA	11			0 0%	10			0 0%			
BAHAWALPUR	11			0 0%	10			0 0%			
RAJANPUR					10			0 0%			
CDA	11	5		5 45%	11	7		7 64%	10-Nov-18		
KHIGIQBAL	24	5	1	6 25%	21	1		1 5%	13-Sep-18		
KHIGADAP	33	19		19 58%	34	12	1	13 38%	13-Nov-18		
KHIBALDIA	11	2		2 18%	11	2		2 18%	4-Sep-18		
KHILANDHI	11	6		6 55%	10	3		3 30%	30-Jul-18		
KHIKORANGI	11	1		1 9%	9			0 0%	16-Oct-17		
KHISITE	11	4		4 36%	11	2		2 18%	3-Sep-18		
KHISADDAR					10	1		1 10%	10-Sep-18		
KHILIAQAT					10	2		2 20%	7-Nov-18		
SUKKUR	29	1	1	2 7%	23	1	1	2 9%	9-Nov-18		
HYDERABAD	11			0 0%	11	1		1 9%	9-Feb-18		
JACOBABAD	13	2	1	3 23%	13	2	1	3 23%	12-Sep-18		
SANGHAR	11			0 0%	1			0 0%			
DADU	11			0 0%	11			0 0%			
KAMBAR	11	1		1 9%	11	3		3 27%	9-Jul-18		
PESHAWAR	25	5	2	7 28%	28	17	1	18 64%	10-Nov-18		
DIKHAN	22			0 0%	22			0 0%	16-Jul-16		
BANNU	11			0 0%	11	1	1	2 18%	26-Oct-18		
KOHAT	10			0 0%	11	5		5 45%	27-Sep-18		
CHARSADA	11			0 0%	10			0 0%			
MARDAN	11			0 0%	11	2		2 18%	15-Nov-18		
NOWSHERA	11			0 0%	10	2		2 20%	18-Oct-18		
KABDULAH	23	13		13 57%	21	5		5 24%	1-Nov-18		
QUETTA	45	10	1	11 24%	42	9		9 21%	20-Oct-18		
PISHIN	12	5		5 42%	11			0 0%	2-Oct-17		
KHUZDAR	11			0 0%	10			0 0%			
LORALAI	11	3		3 27%	9	2		2 22%	17-Aug-18		
ZHOB	11			0 0%	10			0 0%	18-Dec-17		
WAZIR-S					7			0			
BAJOUR					7	5		5 71%	25-Oct-18		
PAKISTAN	604	89	8	97 16%	600	107	7	114 19%	15-Nov-18		

New Positive Samples

* Afp.rec Data as of 03-12-2018

WPV and cVDPV Cases by District in 2018

PROVINCE	DISTRICT	WPV Cases		cVDPV Cases	
		Onset of Last Case	Cases	Onset of Last Case	Cases
SINDH	KHIGADAP	22-Sep	1		
KPTD	KHYBER	25-Sep	1		
KPTD	BAJOUR	07-Oct	2		
KP	CHARSADA	1-Aug	1		
BALUCHISTAN	DUKKI	18-May	3		
PAKISTAN		07-Oct	8		

Map 2.1: Point in Time Comparison of Wild Polio virus, Compatible and cVDPV2 isolates

Infected districts/Towns/Agencies/Areas

On the basis of WPV isolation

- WPV cases = 07
- Sewage water = 14 (no WPV case)
- Total = 21

2017

Source

AFP Surveillance

- P1 = 08
- Compatible = 02
- cVDPV Cases = -
- cVDPV Env = -

Sewage water

- Grab = 89
- BMFS = 08

Infected districts/Towns/Agencies/Areas

On the basis of WPV isolation

- WPV cases = 05
- Sewage water = 22 (no WPV case)
- Total = 27

2018

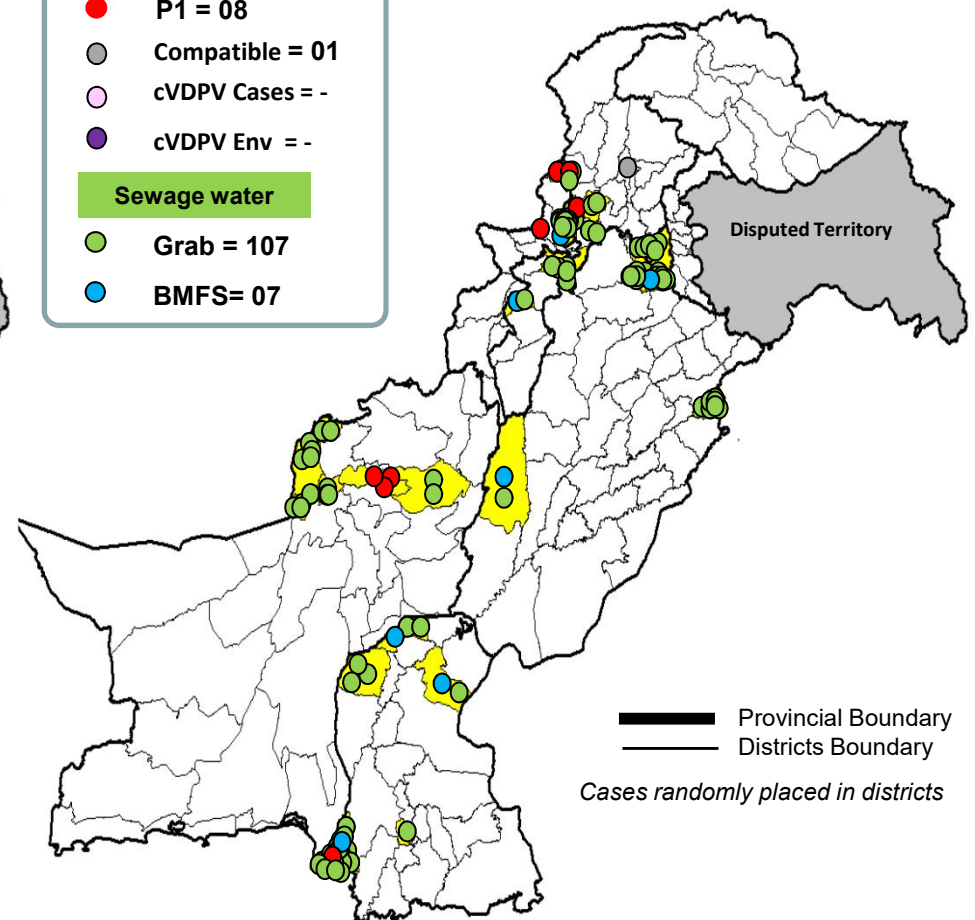
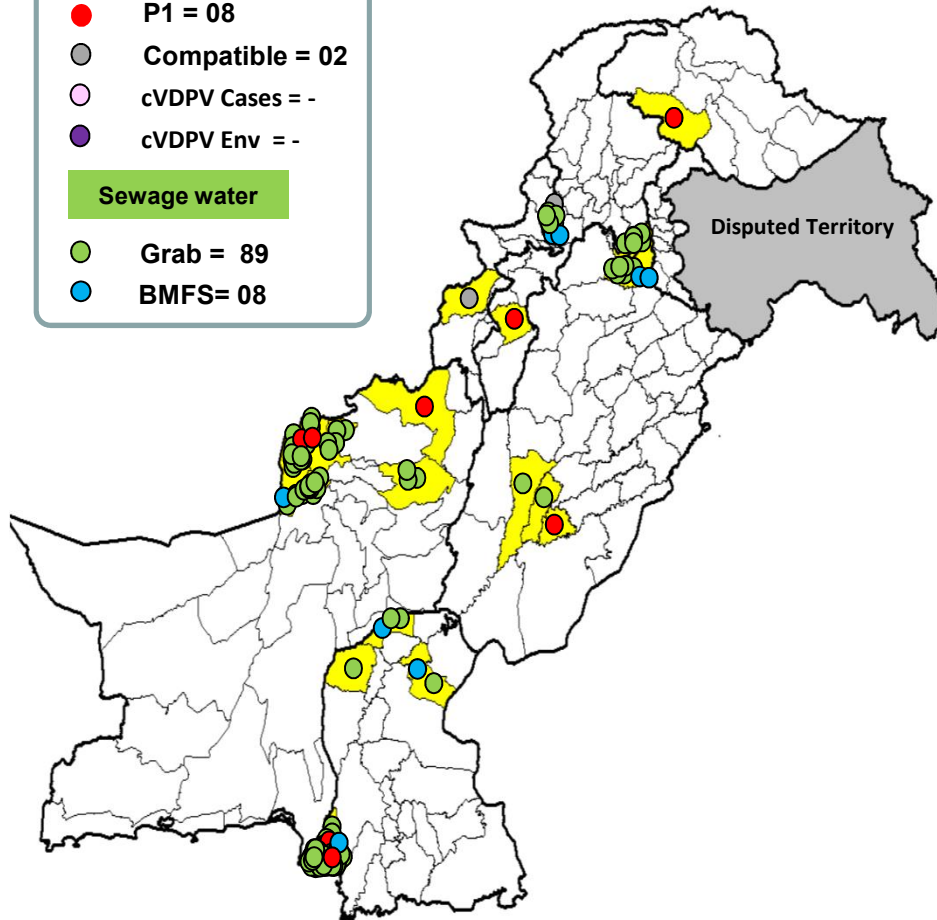
Source

AFP Surveillance

- P1 = 08
- Compatible = 01
- cVDPV Cases = -
- cVDPV Env = -

Sewage water

- Grab = 107
- BMFS = 07



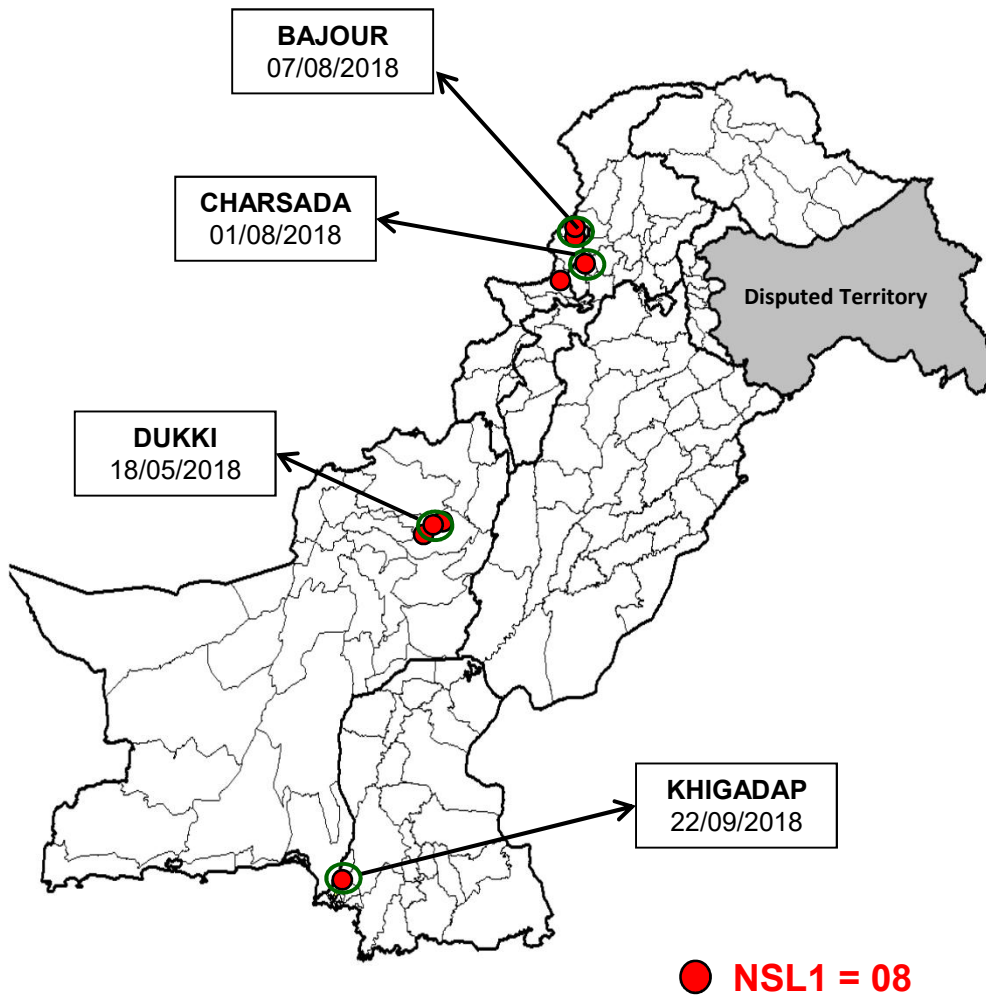
— Provincial Boundary
 — Districts Boundary

Cases randomly placed in districts

* Afp.rec Data as of 03-12-2018

Map1: Distribution of Wild Polio Cases Pakistan 2017-2018*

Districts/Towns with Wild Polio Cases = 05



Province/ Country	Date of Last Case		Number of cases 2017		Number of cases 2018	
	P1	P3	P1	P3	P1	P3
KP-TD	Oct, 2018	Apr, 2012	-	-	03	-
KHYBER-PAKHTUNKHWA	Aug, 2018	Oct, 2010	01	-	01	-
SINDH	Sep, 2018	Jan, 2010	02	-	01	-
BALUCHISTAN	May, 2018	Apr, 2010	03	-	03	-
PUNJAB	Jan, 2017	Jun, 2010	01	-	-	-
AJK	Jun, 2000	Jun, 2000	-	-	-	-
GILGIT-BALTISTAN	Feb, 2017	-	01	-	-	-
ISLAMABAD	Sep, 2008	Sep, 2008	-	-	-	-
PAKISTAN	Oct, 2018	Apr, 2012	08	-	08	-

○ District with last polio case in province

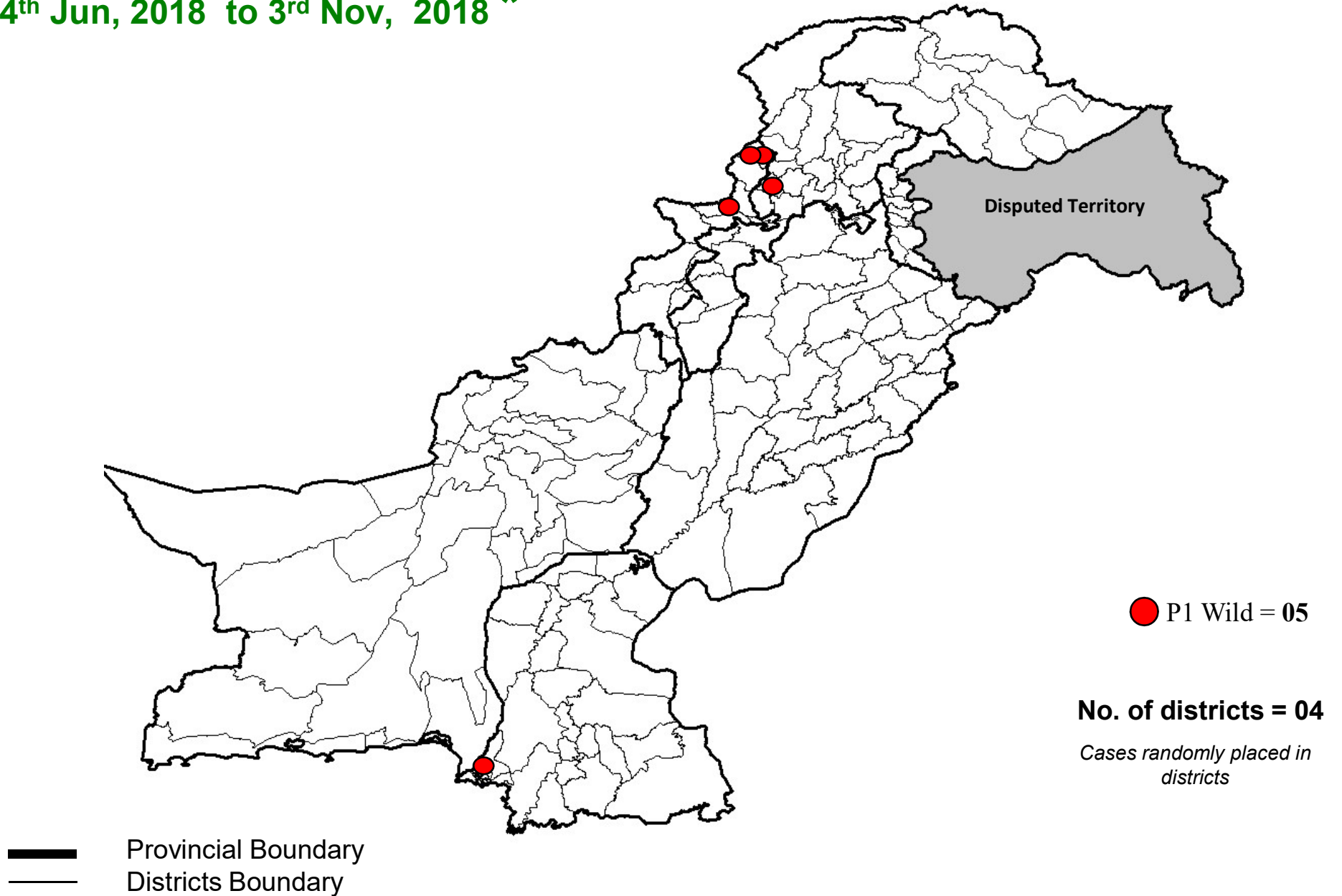
— Provincial Boundary
— Districts Boundary

Cases randomly placed in districts

* Afp.rec Data as of 03-12-2018

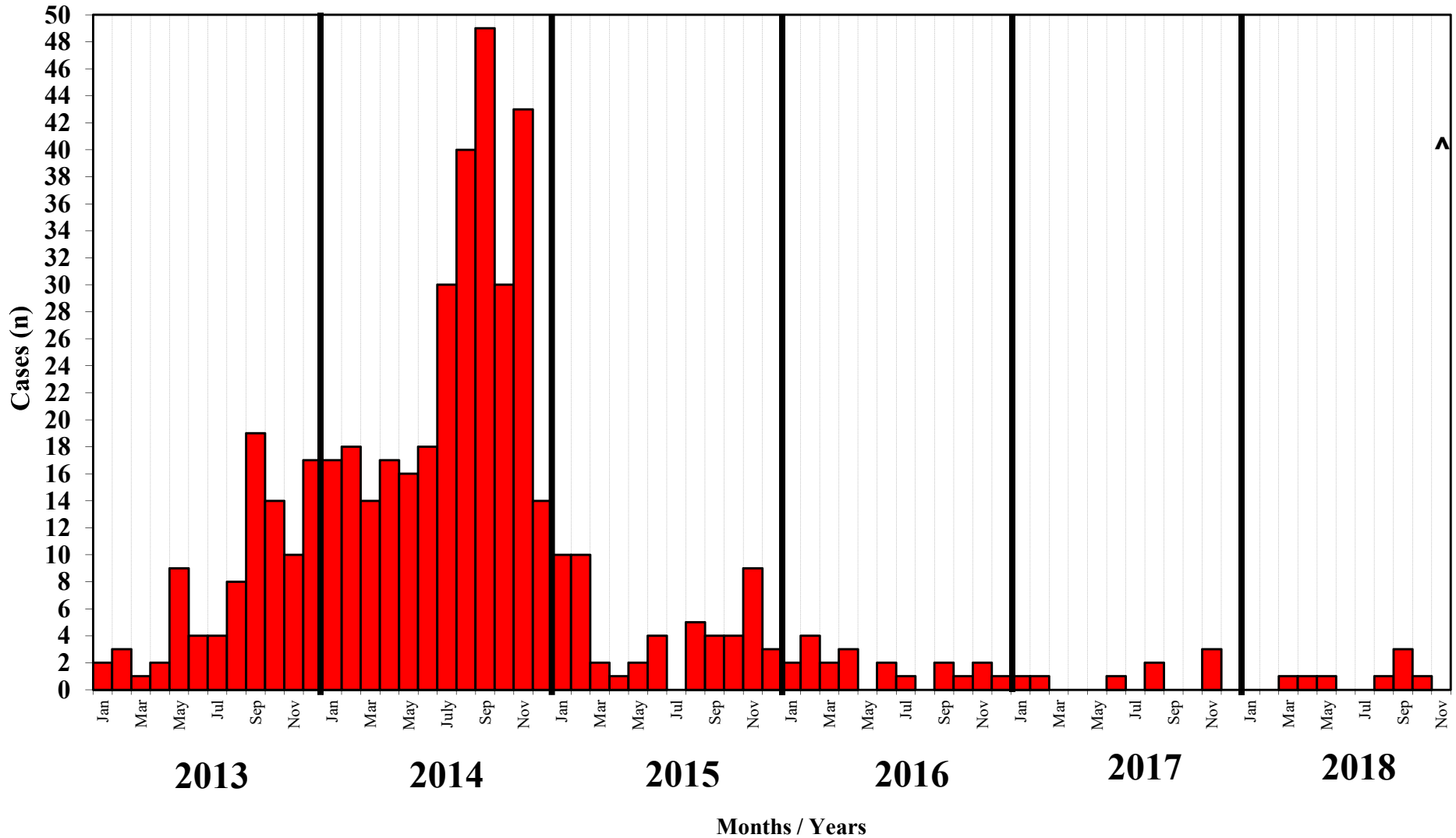
Map 3: Wild Polio cases in the last 6 months

4th Jun, 2018 to 3rd Nov, 2018 *



* Afp.rec Data as of 03-12-2018

Confirmed Polio Cases 2013-2018*

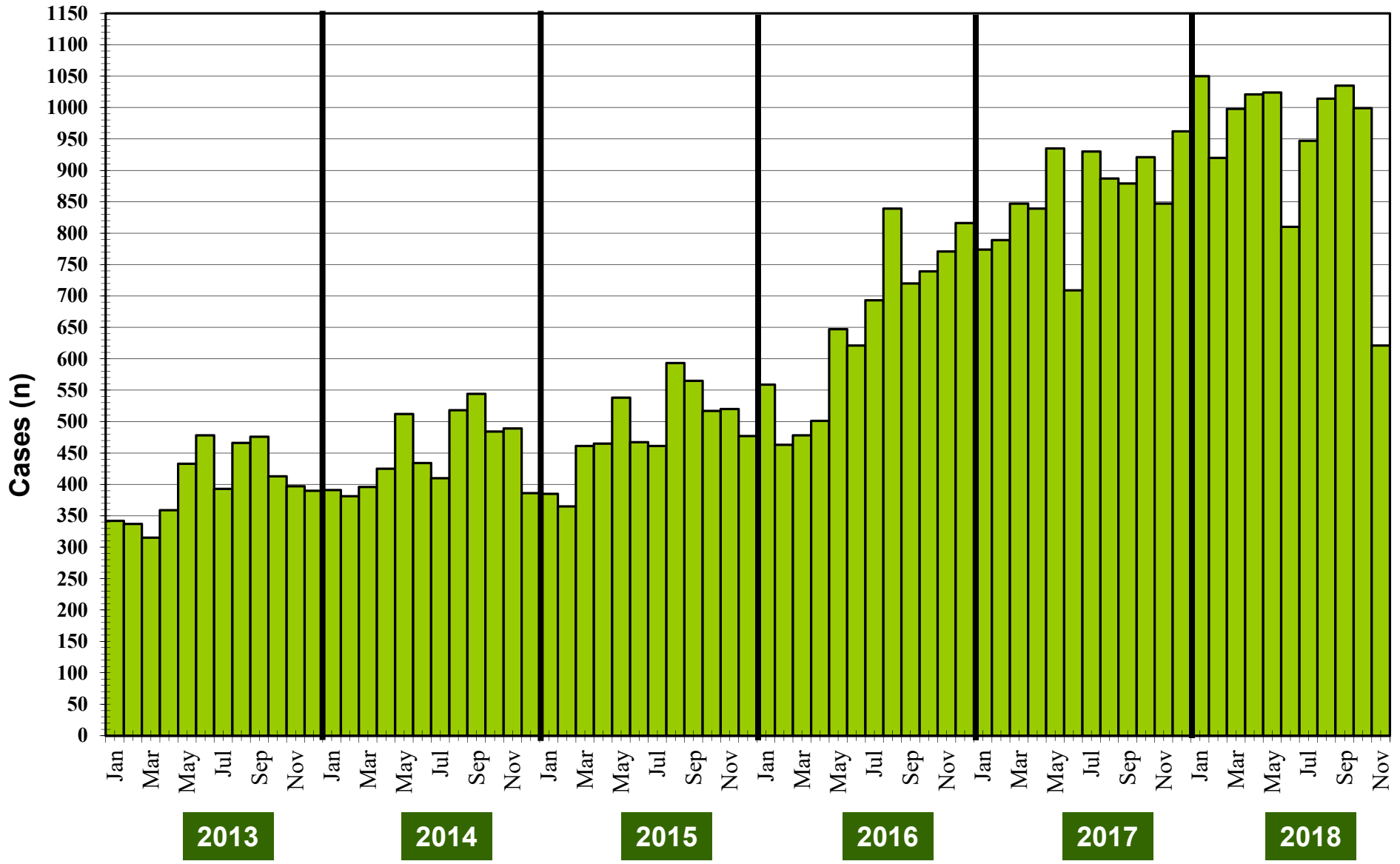


* Afp.rec Data as of 03-12-2018

■ NSL1

^ Data incomplete

Graph 1: Distribution of AFP Cases by Month, Pakistan 2013-2018*



* Afp.rec Data as of 03-12-2018

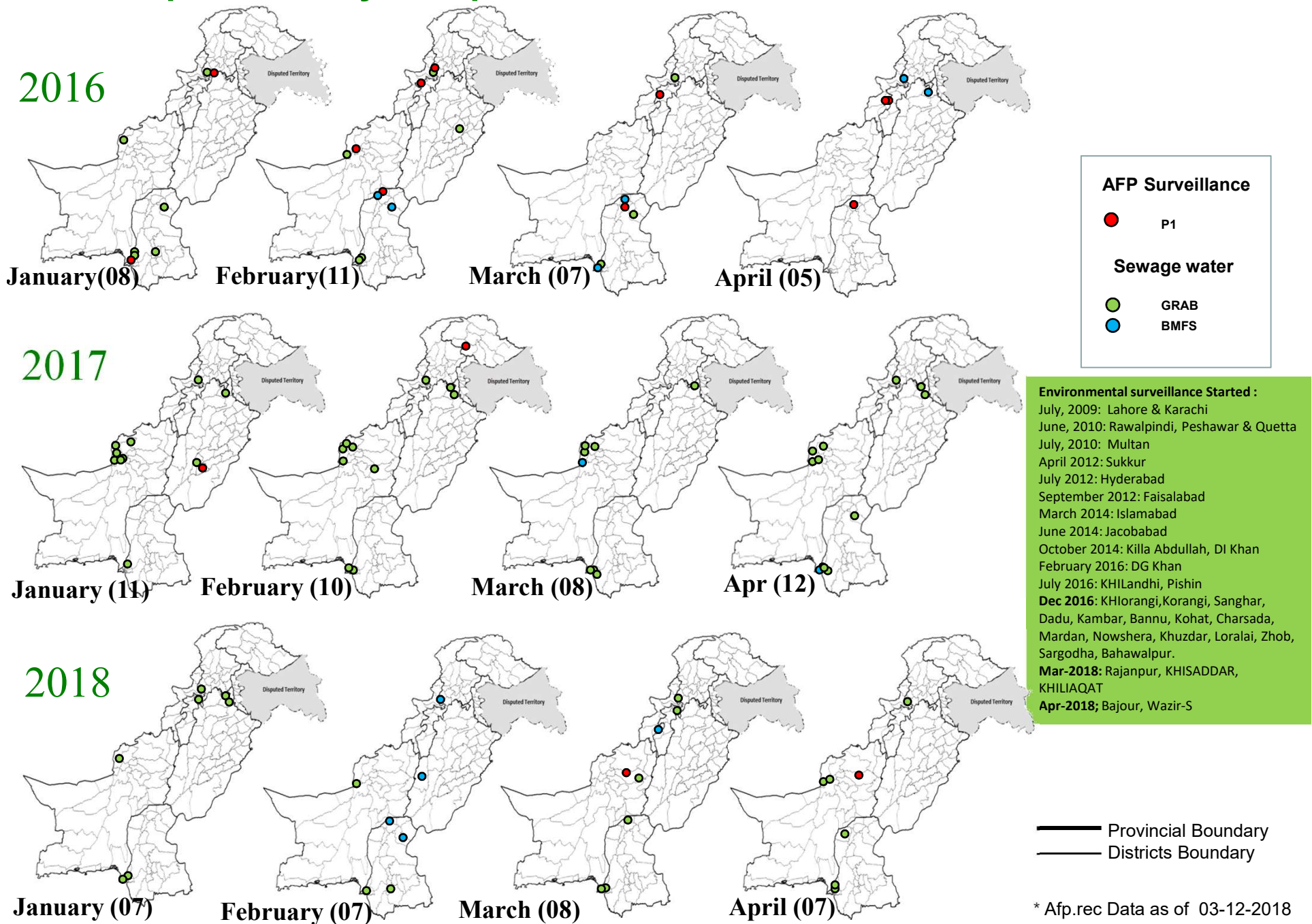
**Table 4: Distribution of AFP Cases By Week of Onset ^
Pakistan- 2018* [Week number / Ending on]**

PROVINCE	W 33 18 Aug 2018	W 34 25 Aug 2018	W 35 01 Sep 2018	W 36 08 Sep 2018	W 37 15 Sep 2018	W 38 22 Sep 2018	W 39 29 Sep 2018	W 40 06 Oct 2018	W 41 13 Oct 2018	W 42 20 Oct 2018	W 43 27 Oct 2018	W 44 03 Nov 2018	W 45 10 Nov 2018	W 46 17 Nov 2018	W 47 24 Nov 2018
PUNJAB	90	105	110	121	107	86	108	95	106	97	105	102	104	89	26
SINDH	41	32	47	39	48	62	60	26	43	59	40	43	39	35	6
KPAKHTUNKHWA	42	42	57	48	35	55	59	47	48	60	41	39	75	43	20
KPTD	5	11	8	10	8	10	13	11	23	17	9	13	22	11	3
BALOCHISTAN	8	8	14	17	10	10	17	12	11	15	5	6	11	13	3
AJK	5	4	5	7	4	8	4	5	3	7	5	8	4	4	3
GBALTISTAN	1	4	2	3	1	1	0	2	1	1	1	2	1	1	0
ISLAMABAD	1	4	4	2	6	4	5	3	6	3	6	3	3	2	1
PAKISTAN	193	210	247	247	219	236	266	201	241	259	212	216	259	198	62

* Afp.rec & Afplab.rec: Data as of 03-12-2018

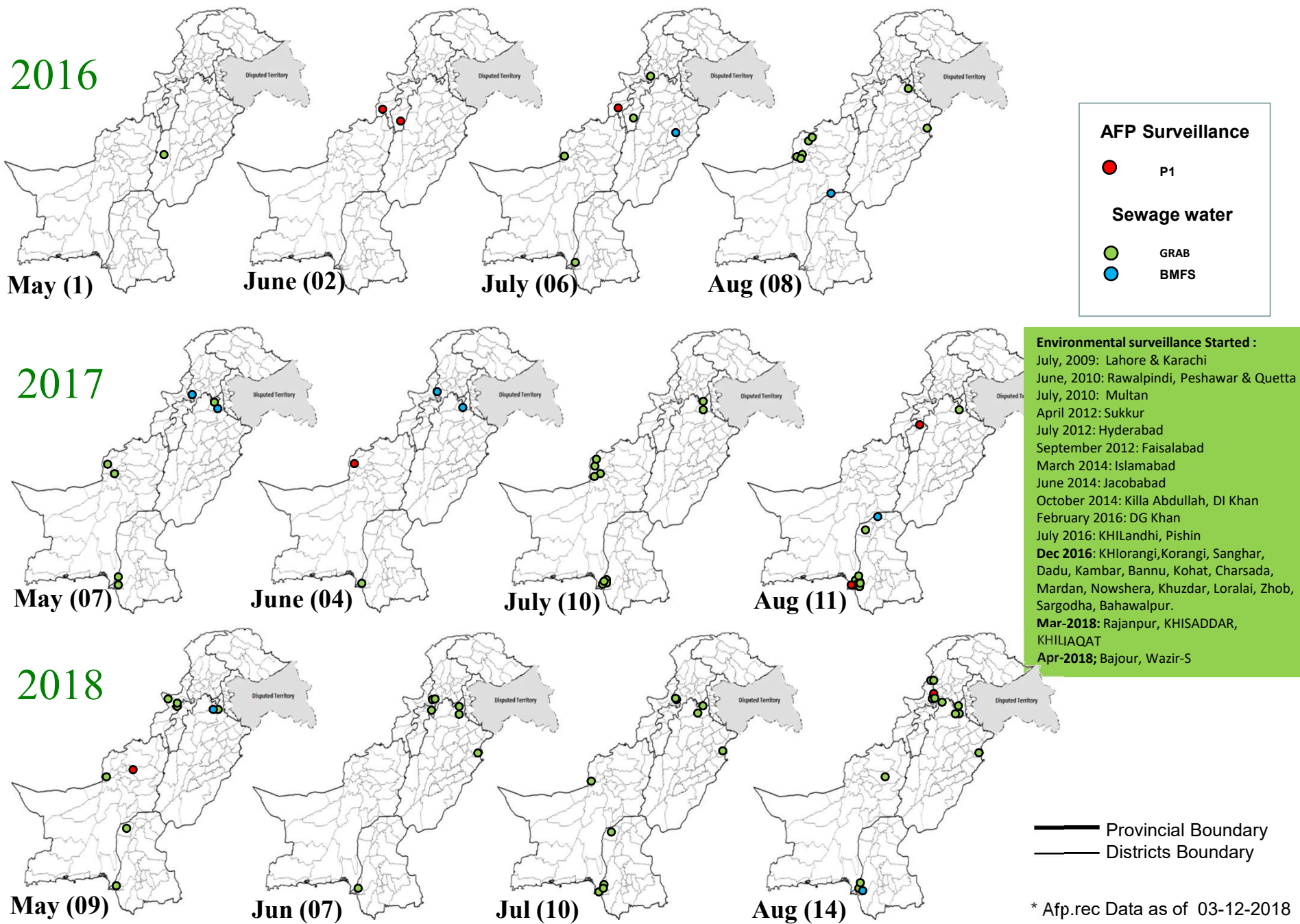
^ MMWR Epidemiological Weeks

Map 4: Monthly Comparison of Polio Cases/Isolates 2016-2018*



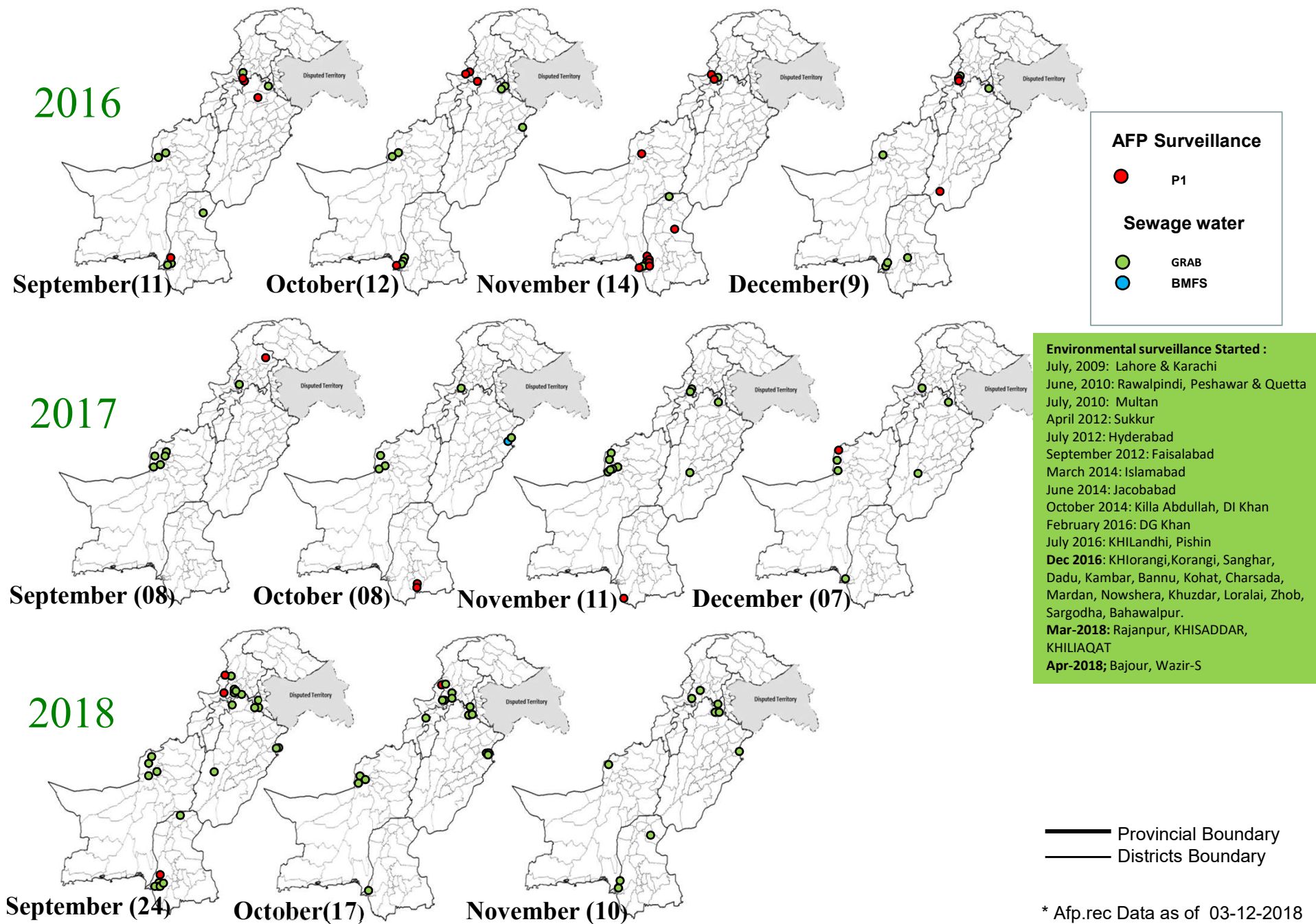
* Afp.rec Data as of 03-12-2018

Map 4.1: Monthly Comparison of Polio Cases/Isolates 2016-2018*



* Afp.rec Data as of 03-12-2018

Map 4.2: Monthly Comparison of Polio Cases/Isolates 2016-2018*



* Afp.rec Data as of 03-12-2018

Table 5: Polio Eradication Update, Pakistan 2015-2018*

Province/Region	Polio 1			
	2015	2016	2017	2018
KP-TD	16	02	-	03
KP	17	08	01	01
SINDH	12	08	02	01
PUNJAB	02	-	01	-
BALUCHISTAN	07	02	03	03
AJK	-	-	-	-
Gilgit-Baltistan	-	-	01	-
ISLAMABAD	-	-	-	-
PAKISTAN	54	20	08	08

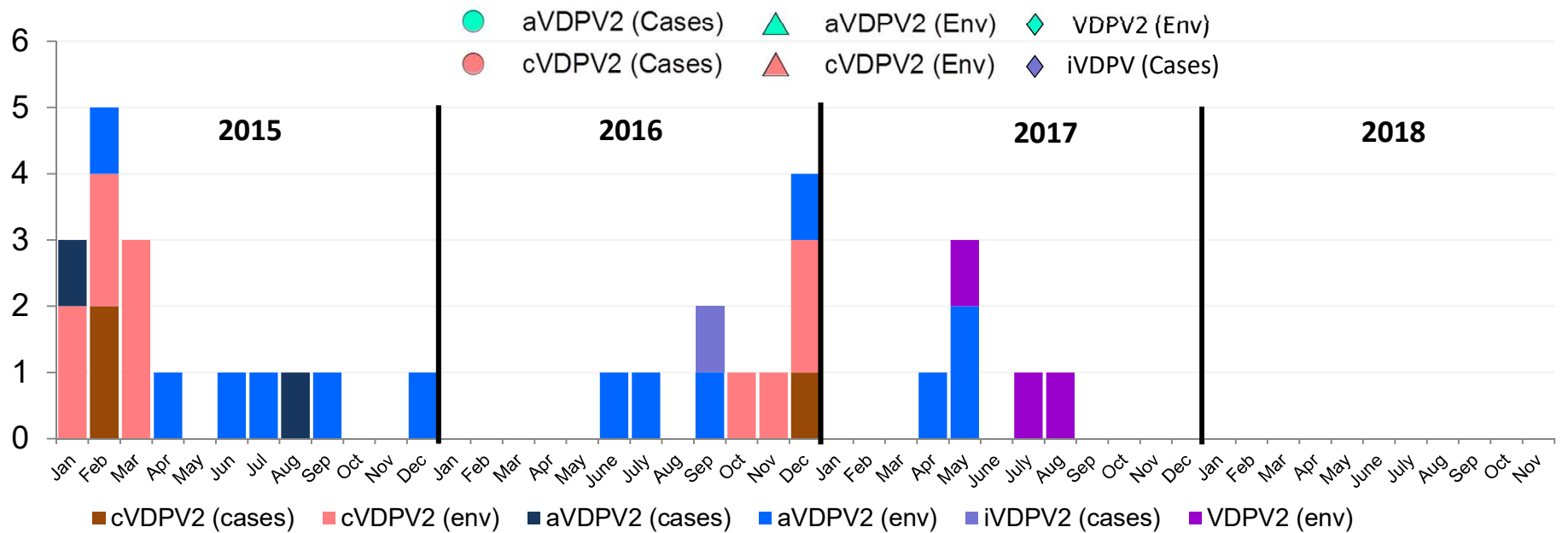
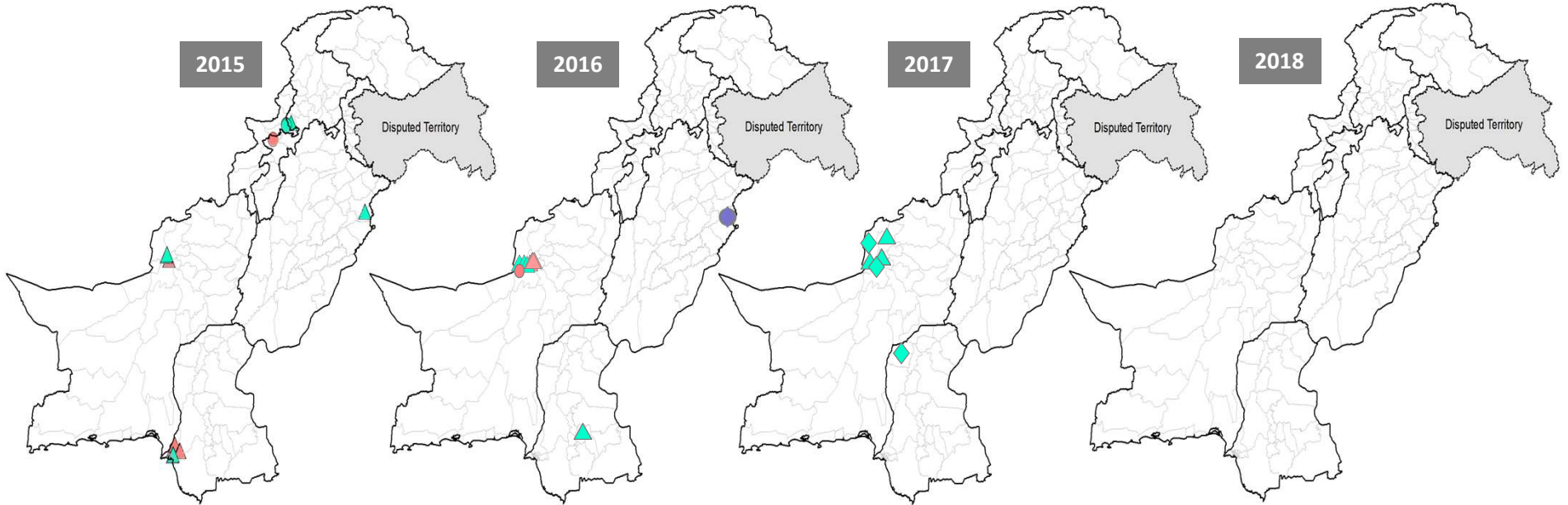


* Afp.rec Data as of 03-12-2018

VDPV2 isolates, 2014 to 2018*

DISTRICT	2014				2015				2016					2017					2018			
	aVDPV-2		cVDPV-2		aVDPV-2		cVDPV-2		aVDPV-2		iVDPV-2		cVDPV-2		VDPV2		aVDPV-2		cVDPV-2			
	Cases	Env	Cases	Env	Cases	Env	Cases	Env	Cases	Env	Cases	Env	Cases	Env	Env	Cases	Env	Cases	Env			
JAFARABAD																						
MASTUNG																						
PISHIN														1								
QUETTA					2		1			3			1	4		2				1		
KABDULAH																				1		
BALOCHISTAN					2		1			3			1	4		3				2		
KHYBER	1		2		1		1															
MOHMAND																						
WAZIR-N	2		7																			
WAZIR-S	1																					
KP-TD	4		17		1		1															
FR BANNU			8																			
BANNU			1																			
HANGU							1															
LAKKIMRWT			1																			
PESHAWAR			1				1															
KPAKHTUNKHWA			3		1		1															
LAHORE	1				1					1												
PUNJAB	1				1					1												
KAMBAR																				1		
KHIGADAP		2	1	7																6		
KHIGIQBAL		1					2															
KHIGULBERG							1															
HYDERABAD										1												
SINDH		3	1	7	1	2		6		1										1		
PAKISTAN	5	3	21	7	2	6	2	7		4	1		1	4		3				3		

VDPV isolates (Cases + ES), 2015 – 2018*



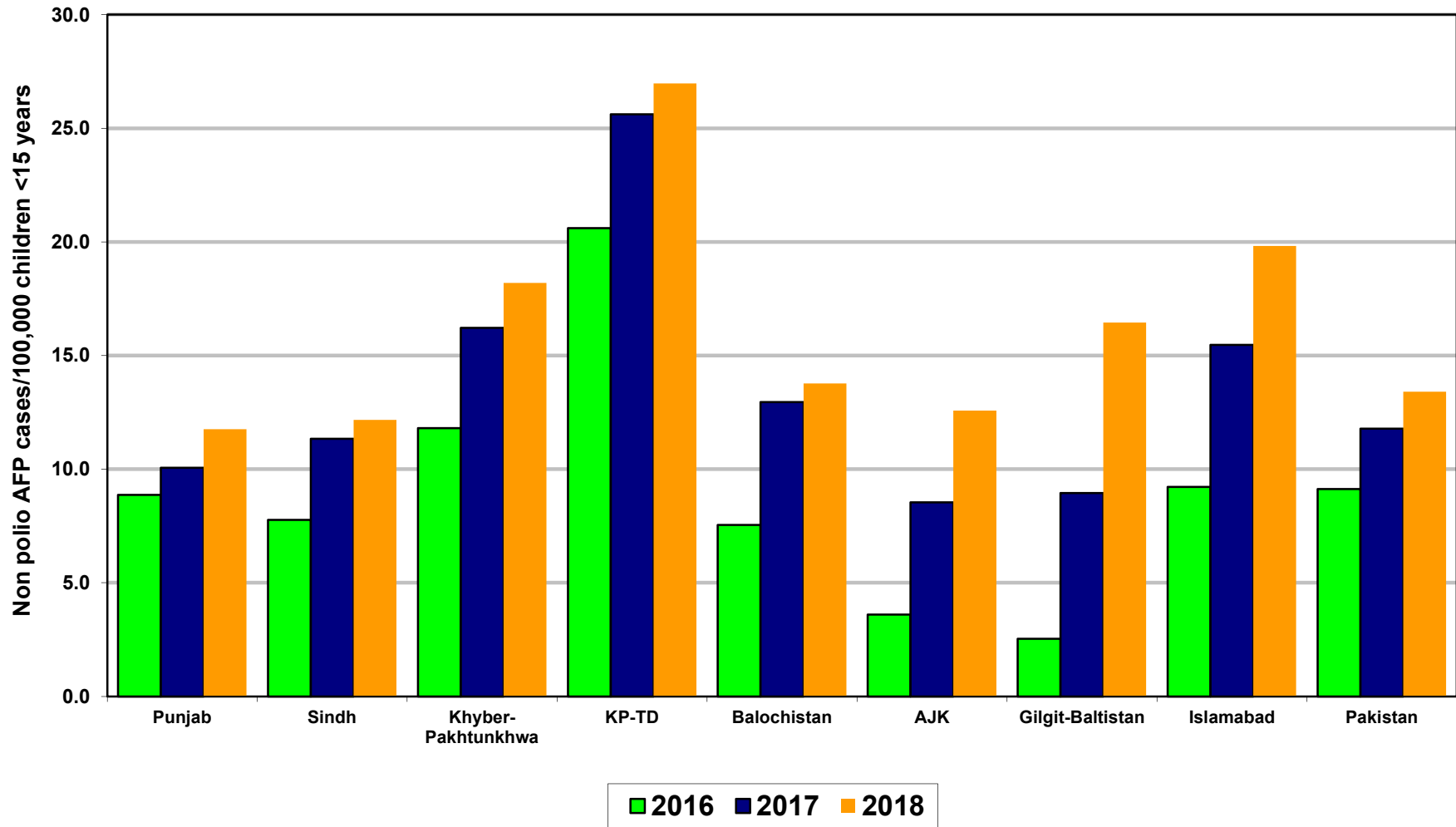
* Afp.rec Data as of 03-12-2018

Table 6: Vaccination status of non polio AFP cases age 6-59 months 2016-2018*

REGION	0 dose			1-2 doses			3 doses			4-6 doses			7+ doses		
	16	17	18	16	17	18	16	17	18	16	17	18	16	17	18
Central Punjab	0%	0%	0%	0%	0%	0%	1%	1%	1%	3%	3%	3%	97%	96%	97%
North Punjab	0%	0%	0%	0%	0%	0%	0%	1%	1%	2%	2%	3%	98%	97%	96%
South Punjab	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	1%	98%	98%	98%
PUNJAB	0%	0%	0%	0%	0%	0%	0%	1%	1%	2%	2%	2%	97%	97%	97%
Karachi	0%	1%	0%	1%	1%	1%	1%	1%	2%	5%	7%	5%	93%	91%	93%
North Sindh	0%	0%	0%	0%	0%	0%	0%	0%	1%	5%	3%	2%	94%	97%	97%
South Sindh	0%	0%	0%	1%	0%	0%	1%	1%	1%	6%	4%	3%	92%	95%	96%
SINDH	0%	0%	0%	1%	0%	0%	1%	0%	1%	5%	4%	3%	93%	95%	96%
Central Khyber Pakhtunkhwa	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	1%	1%	98%	98%	98%
North Khyber Pakhtunkhwa	0%	0%	0%	1%	1%	1%	0%	1%	0%	3%	4%	3%	96%	94%	96%
South Khyber Pakhtunkhwa	1%	0%	2%	2%	2%	0%	1%	2%	0%	3%	5%	3%	94%	91%	94%
Khyber Pakhtunkhwa	0%	0%	1%	1%	1%	0%	0%	1%	0%	2%	3%	2%	96%	95%	97%
KP-TD	0%	0%	0%	2%	0%	0%	1%	1%	0%	9%	8%	3%	89%	91%	96%
Rest of Balochistan	7%	3%	0%	7%	9%	5%	2%	4%	3%	23%	13%	18%	62%	71%	75%
North Balochistan	0%	4%	0%	3%	6%	3%	3%	2%	0%	10%	10%	12%	83%	78%	85%
Quetta Block	1%	0%	3%	1%	1%	0%	4%	0%	0%	10%	7%	1%	83%	92%	96%
BALUCHISTAN	2%	2%	1%	3%	4%	2%	3%	3%	1%	13%	10%	10%	80%	82%	86%
PAKISTAN	0%	0%	0%	1%	1%	0%	1%	1%	1%	4%	4%	3%	95%	95%	96%

* Afp.rec Data as of 03-12-2018

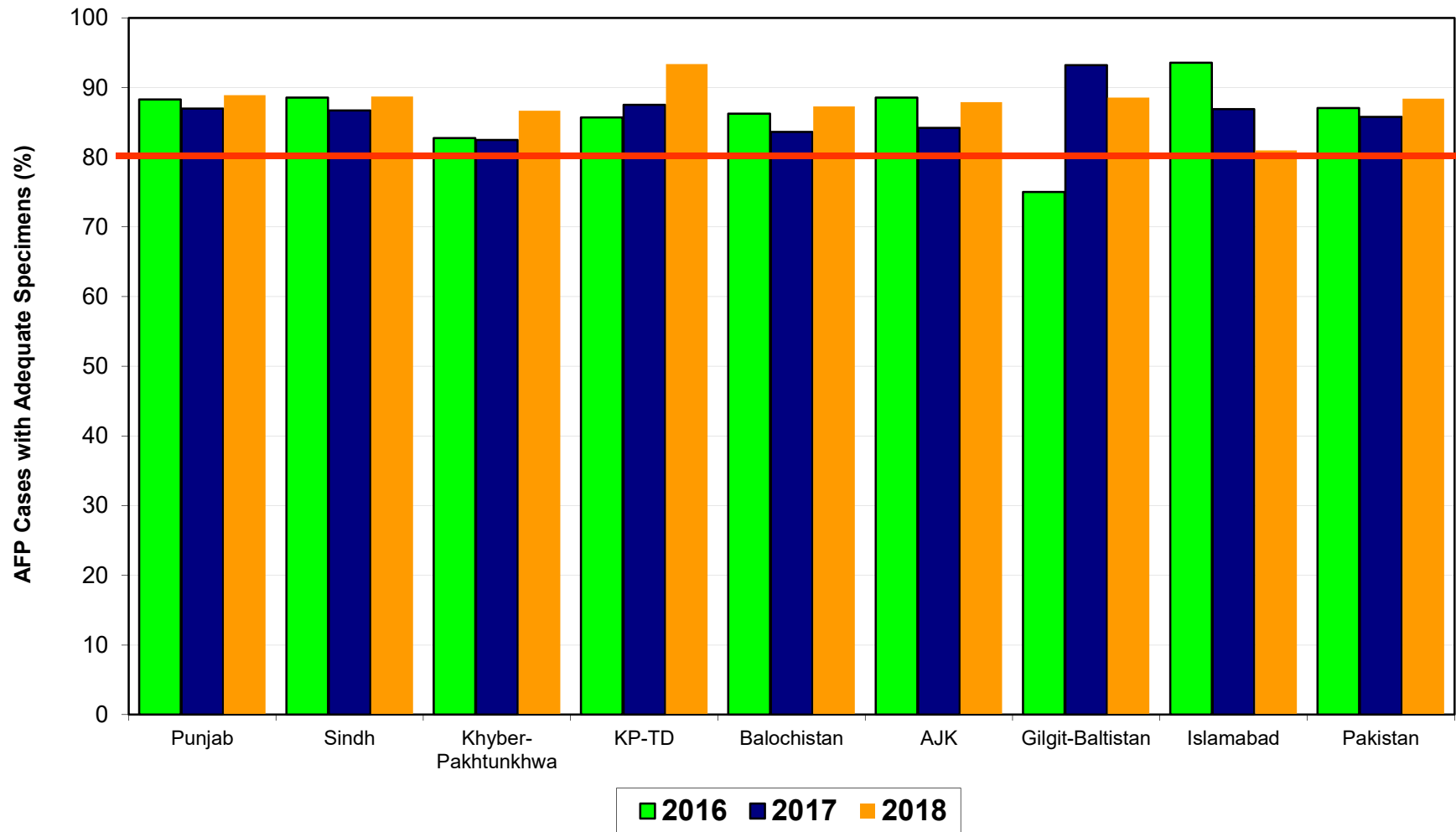
Non Polio AFP Rate By Province/Regions, 2016-2018*



Minimum Target Non-Polio AFP Rate is 6/100000 < 15 years of the age

* Afp.rec Data as of 03-12-2018

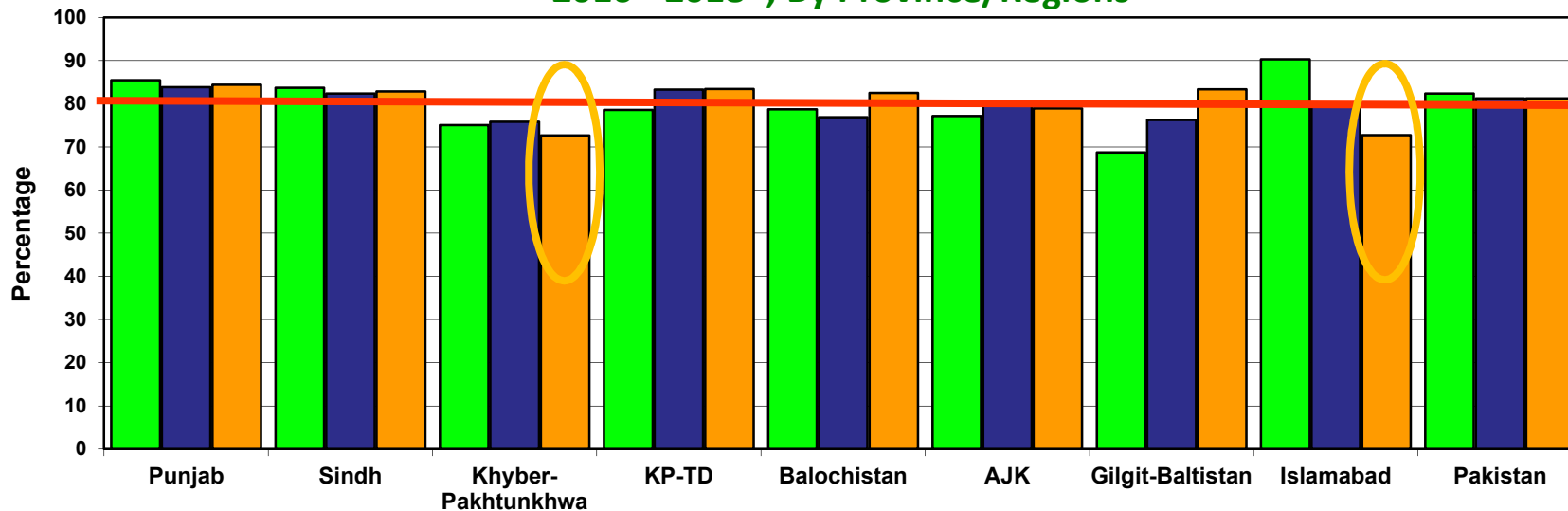
Percent AFP Cases with Adequate Specimens By Province/Regions, 2016-2018*



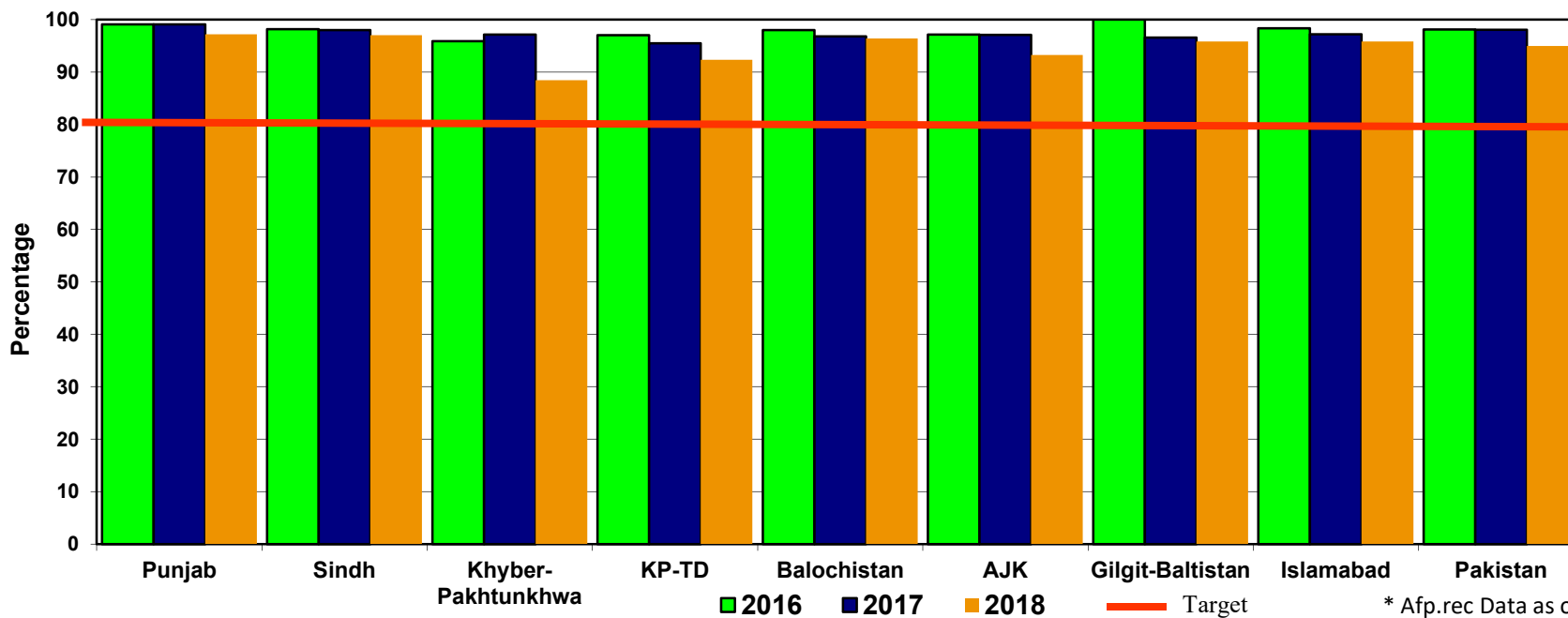
* Afp.rec Data as of 03-12-2018

— Target Adequate Sample cases = 80%

**Graph 5: Percent AFP Cases Notified within 07 days of paralysis onset
2016 - 2018*; By Province/Regions**

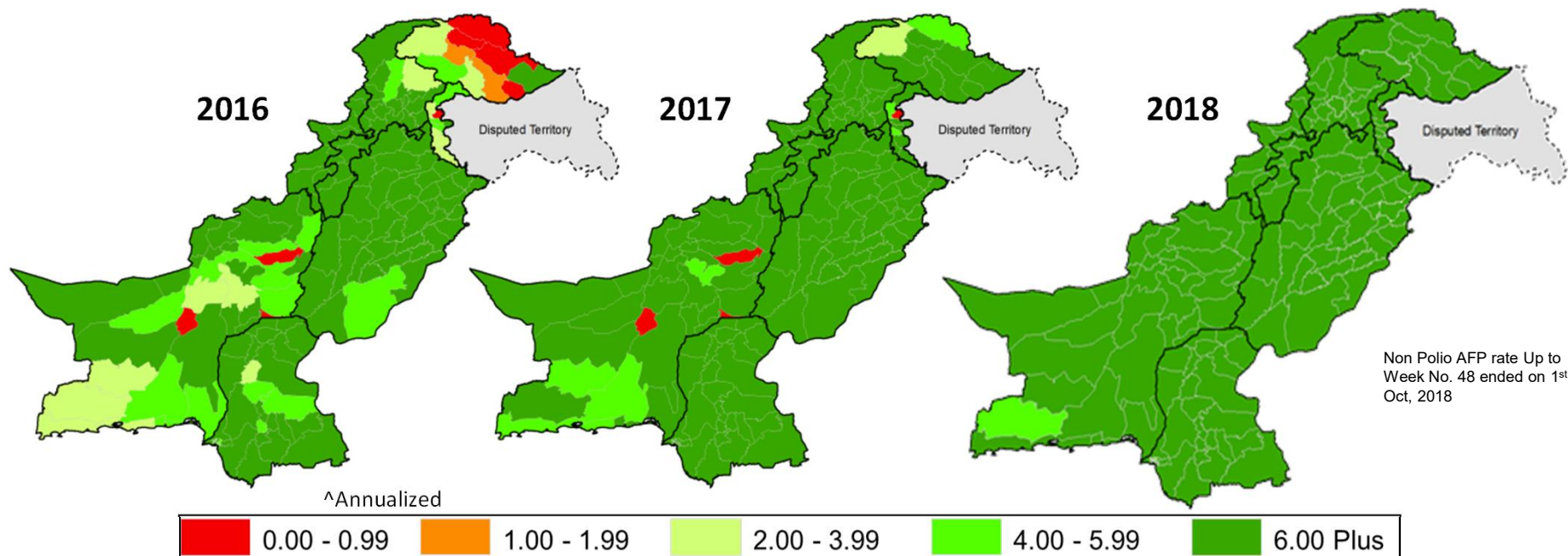


**Graph 6: Percent AFP Cases Investigated within 48 hours of notification
2016 ~ 2018*; By Province/Regions**

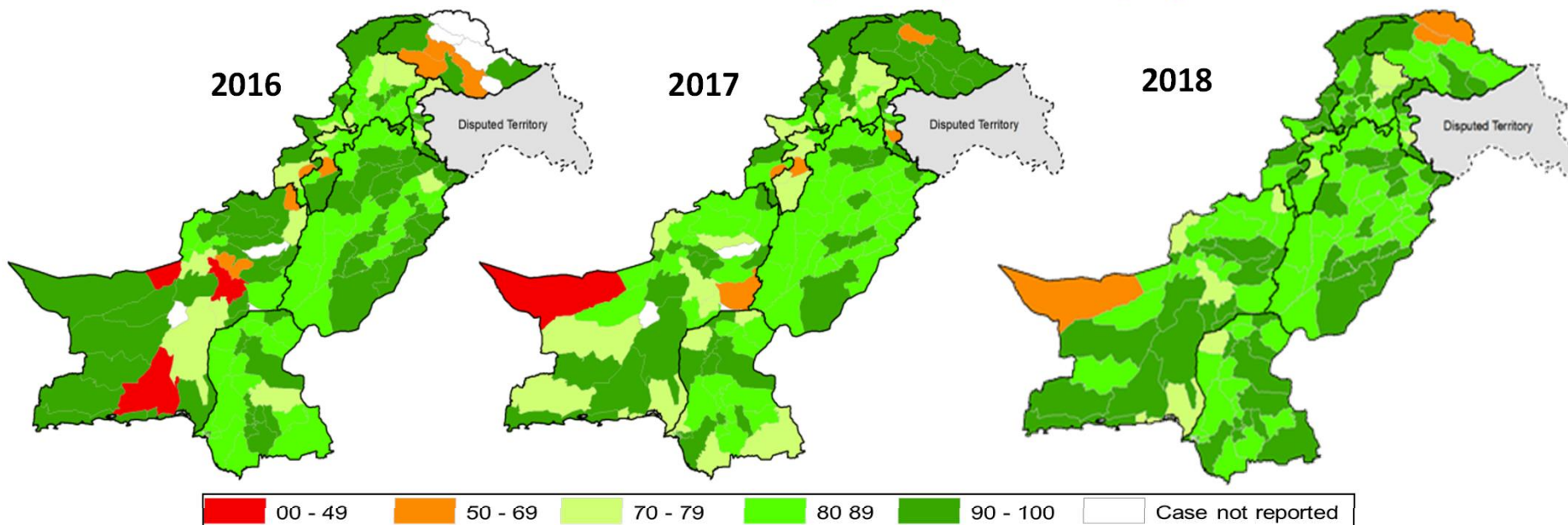


* Afp.rec Data as of 03-12-2018

Non-Polio ^ AFP Rate by District



Percent AFP Cases with Adequate Specimens, by District



**Table 7.4: AFP CASES PENDING FOR CLASSIFICATION
WITH DATE OF ONSET MORE THAN 90 DAYS* 2018 Page (1/3)**

S. No	DISTRICT	TEHSIL	EPID	SEX	AGE	DONSET	DOSESE	DSTOOL1	DSTOOL2	LAB	FEVER	ASVM	PROG	FUP	PEND (DAYS)
1	DGKHAN	DGKHAN	PB/81/18/257	F	16	27-07-18	7+	12-11-18	13-11-18	NVI	UK	UK	UK		125
2	HARIPUR	HARIPUR	KP/12/18/800	F	84	17-07-18	7+	10-08-18	11-08-18	NVI	UK	UK	UK		135
3	LAKKIMRWT	LAKKIMRWT	KP/62/18/074	F	168	05-08-18	7+	31-08-18	01-09-18	NVI	UK	UK	UK		116
4	LAKKIMRWT	LAKKIMRWT	KP/62/18/085	M	8	15-08-18	7+	11-09-18	12-09-18	EV	UK	UK	UK		106
5	LAKKIMRWT	LAKKIMRWT	KP/62/18/083	M	8	02-08-18	7+	13-09-18	14-09-18	NVI	UK	UK	UK		119
6	LAKKIMRWT	LAKKIMRWT	KP/62/18/086	F	2	09-08-18	7+	14-09-18	15-09-18	VACC	UK	UK	UK		112
7	LAKKIMRWT	LAKKIMRWT	KP/62/18/094	M	30	29-08-18	7+	02-10-18	03-10-18	EV	UK	UK	UK		92
8	MANSEHRA	MANSEHRA	KP/14/18/041	F	36	27-07-18	7+	25-08-18	26-08-18	EV	UK	UK	UK		125
9	NFEROZ	NFEROZ	SD/45/18/038	M	48	25-08-18	7+	10-10-18	11-10-18	EV	N	Y	Y		96
10	PISHIN	PISHIN	BN/12/18/800	F	36	06-08-18	7+	21-08-18	22-08-18	EV	UK	UK	UK		115
11	UMERKOT	UMERKOT	SD/34/18/048	F	48	14-08-18	7+	06-09-18	07-09-18	NVI	N	N	Y		107
12	WAZIR-S	WAZIR-S	TD/65/18/031	F	3	21-08-18	7+	21-09-18	22-09-18	EV	UK	UK	UK		100
13	BAJOUR	WARA MAMOUND	FT/33/18/047	F	3	05-06-18	2	23-06-18	24-06-18	NVI	Y	Y	Y	Y	177
14	BAJOUR	LOE MAMOUND	TD/33/18/081	F	39	24-08-18	7+	10-09-18	11-09-18	EV	N	Y	Y		97
15	FR BANNU	FR BANNU	FT/69/18/021	M	18	09-05-18	7+	07-07-18	08-07-18	NVI	N	Y	UK		204
16	KHYBER	BARA	FT/34/18/031	M	10	15-02-18	7+	14-03-18	15-03-18	NVI	Y	Y	Y	Y	287
17	KURRAM	UPPER KURRAM	FT/52/18/016	M	16	26-05-18	7+	27-06-18	28-06-18	EV	N	N	UK	Y	187
18	MOHMAND	KHAWEZAI	TD/35/18/042	M	96	26-07-18	7+	17-08-18	18-08-18	EV	Y	Y	Y	Y	126
19	MOHMAND	EKKAGHUND	TD/35/18/054	M	120	26-08-18	7+	09-10-18	11-10-18	NVI	Y	Y	Y	Y	95
20	WAZIR-S	BIRMAL	TD/65/18/026	F	108	14-08-18	7+	LATE NOTIFIED			Y	N	Y		107
21	BHAKKAR	DARYA KHAN	PB/44/18/033	M	54	24-08-18	7+	21-09-18	22-09-18	EV	Y	N	Y	Y	97
22	BHAKKAR	KALOOR KOT	PB/44/18/042	M	56	24-08-18	7+	28-09-18	29-09-18	NVI	N	N	Y	Y	97
23	GUJRANWALA	AROOP TOWN	PB/21/18/196	M	96	22-08-18	7+	13-09-18	14-09-18	NVI	N	N	Y	Y	99
24	KASUR	KOT RADHA KISHAN	PB/32/18/077	M	156	29-07-18	7+	19-08-18	20-08-18	NVI	N	N	Y	Y	123
25	LAYYAH	CHOUBARA	PB/84/18/049	F	36	21-08-18	7+	03-09-18		NVI	Y	Y	UK	DIED	100
26	LODHRAN	DUNYA PUR	PB/64/18/065	F	144	30-08-18	7+	21-09-18	26-09-18	NVI	Y	N	Y	Y	91
27	MBDIN	PHALIA	PB/24/18/060	F	14	23-08-18	7+	08-09-18	09-09-18	NVI	Y	Y	Y	Y	98
28	MBDIN	M.B DIN	PB/24/18/068	M	111	28-08-18	7+	24-10-18	25-10-18	NVI	N	N	Y	Y	93
29	MIANWALI	PIPLAN	PB/43/18/062	F	36	26-08-18	7+	LATE NOTIFIED			Y	N	N	Y	95
30	MUZFARGARH	ALIPUR	PB/83/18/206	M	18	24-08-18	7+	26-09-18	27-09-18	NVI	Y	Y	Y	Y	97
31	MUZFARGARH	JATOI	PB/83/18/231	M	14	21-08-18	3	LATE NOTIFIED			Y	Y	Y		100
32	RAJANPUR	JAM PUR	PB/82/18/111	M	12	30-08-18	7+	DIED BEFORE STOOL			Y	Y	Y	DIED	91
33	RYKHAN	RAHIMYAR KHAN	PB/72/18/197	M	75	20-08-18	7+	DIED BEFORE STOOL			Y	N	Y	DIED	101
34	RYKHAN	RAHIMYAR KHAN	PB/72/18/215	F	84	24-08-18	7+	12-09-18	14-09-18	NVI	Y	Y	Y	Y	97
35	SARGODHA	BHULWAL	PB/41/18/080	F	144	26-08-18	3	09-09-18	12-09-18	EV	Y	N	Y	Y	95
36	SARGODHA	SARGODHA	PB/41/18/097	M	14	25-08-18	7+	29-09-18	01-10-18	NVI	N	Y	Y	Y	96
37	SARGODHA	SARGODHA	PB/41/18/104	F	41	20-08-18	7+	LATE NOTIFIED			N	Y	Y		101
38	SHEIKHUPURA	SHEIKHUPURA	PB/33/18/090	M	288	23-07-18	7+	17-08-18	18-08-18	NVI	Y	Y	Y	Y	129
39	SHEIKHUPURA	SHARAQPUR	PB/33/18/095	M	228	01-08-18	7+	29-08-18	31-08-18	NVI	Y	Y	Y	Y	120
40	BADIN	MATLI	SD/23/18/050	M	36	08-08-18	7+	20-08-18	29-08-18	EV	N	N	Y	Y	113
41	BADIN	GOLARCHI	SD/23/18/056	F	11	25-08-18	7+	DIED BEFORE STOOL			Y	N	Y	DIED	96
42	DADU	MEHAR	SD/24/18/045	F	74	28-04-18	7+	14-08-18	15-08-18	EV	Y	Y	Y	Y	215

* Afp.rec Data as of 03-12-2018

€ Based on recall of parents

60 days Follow-up not done

FUP = Residual Weakness at 60 days follow up.

**Table 7.4: AFP CASES PENDING FOR CLASSIFICATION
WITH DATE OF ONSET MORE THAN 90 DAYS* 2018 Page (2/3)**

S. No	DISTRICT	TEHSIL	EPID	SEX	AGE	DONSET	DOSESE	DSTOOL1	DSTOOL2	LAB	FEVER	ASVM	PROG	FUP	PEND (DAYS)
43	HYDERABAD	HYDERABAD RURAL	SD/21/18/064	M	24	20-07-18	7+	02-09-18	04-09-18	NVI	Y	Y	N	Y	132
44	JACOBABAD	GARHI KHAIRO	SD/53/18/048	M	12	11-06-18	7+	LATE NOTIFIED			Y	Y	Y	Y	171
45	JACOBABAD	GARHI KHAIRO	SD/53/18/050	F	84	17-07-18	7+	20-08-18	22-08-18	NVI	Y	Y	Y	DIED	135
46	JACOBABAD	JACOBABAD	SD/53/18/061	M	84	10-08-18	7+	LATE NOTIFIED			N	Y	Y		111
47	JAMSHORO	SEHWAN	SD/25/18/053	M	168	27-08-18	7+	16-09-18	17-09-18	NVI	N	Y	Y	Y	94
48	KAMBAR	WARAH	SD/55/18/061	F	36	24-05-18	7+	LATE NOTIFIED			N	Y	Y	Y	189
49	KAMBAR	SIJAWAL	SD/55/18/067	M	28	10-07-18	7+	07-08-18	08-08-18	NVI	Y	Y	N	DIED	142
50	KAMBAR	QUBO SAEED KHAN	SD/55/18/074	F	12	29-07-18	7+	DIED BEFORE STOOL			Y	N	Y	DIED	123
51	KAMBAR	KAMBAR	SD/55/18/071	M	48	04-08-18	7+	LATE NOTIFIED			Y	Y	Y		117
52	KHAIRPUR	THARI MIR WAH	SD/43/18/073	M	48	27-07-18	7+	31-07-18		EV	Y	Y	Y	DIED	125
53	KHIBALDIA	BALDIA	SD/61/18/020	F	27	20-08-18	7+	12-09-18	13-09-18	EV	Y	N	Y	Y	101
54	KHIGADAP	GADAP	SD/63/18/026	M	84	01-06-18	7+	11-06-18		NVI	N	N	Y	DIED	181
55	KHIGADAP	GADAP	SD/63/18/033	M	36	06-08-18	7+	DIED BEFORE STOOL			Y	Y	Y	DIED	115
56	KHINNAZIM	NNAZIM	SD/74/18/020	F	32	15-08-18	7+	29-08-18	31-08-18	NVI	Y	Y	Y	Y	106
57	LARKANA	DOKRI	SD/51/18/089	F	32	18-07-18	7+	LATE NOTIFIED			Y	Y	Y		134
58	MATIARI	MATIARI	SD/28/18/040	M	72	16-08-18	7+	01-09-18		NVI	N	N	Y	DIED	105
59	SANGHAR	SINJHORO	SD/32/18/054	M	18	14-08-18	7+	01-10-18	04-10-18	NVI	Y	Y	Y	Y	107
60	SHIKARPUR	LAKHI	SD/52/18/051	F	120	30-08-18	7+	10-09-18		NVI	N	N	Y	DIED	91
61	SUJAWAL	SHAH BUNDER	SD/79/18/077	M	11	10-06-18	7+	28-07-18	29-07-18	EV	Y	Y	Y	Y	172
62	SUJAWAL	JATI	SD/79/18/098	M	24	28-08-18	7+	DIED BEFORE STOOL			Y	N	Y	DIED	93
63	BANNU	BANNU	KP/61/18/039	F	50	18-08-18	7+	01-09-18	02-09-18	NVI	Y	N	Y	Y	103
64	BANNU	WAZIR	KP/61/18/040	M	144	10-08-18	0	05-09-18	07-09-18	NVI	Y	Y	Y	Y	111
65	BANNU	BANNU	KP/61/18/043	M	36	18-08-18	7+	14-09-18	15-09-18	NVI	N	N	Y	Y	103
66	BANNU	WAZIR	KP/61/18/054	F	23	20-08-18	7+	LATE NOTIFIED			UK	Y	Y	Y	101
67	BANNU	BANNU	KP/61/18/059	F	96	29-08-18	7+	LATE NOTIFIED			UK	Y	Y	Y	92
68	CHARSADA	TANGI	KP/31/18/099	M	37	17-07-18	7+	23-07-18		NVI	Y	N	Y	DIED	135
69	CHARSADA	CHARSADDA	KP/31/18/114	F	19	23-08-18	7+	28-09-18	29-09-18	EV	N	Y	Y	Y	98
70	DIKHAN	DERA ISMAIL KHAN	KP/60/18/049	M	84	14-06-18	3	27-07-18	28-07-18	NVI	N	Y	Y		168
71	DIKHAN	DERA ISMAIL KHAN	KP/60/18/054	F	143	11-07-18	7+	09-08-18	10-08-18	EV	Y	Y	Y	Y	141
72	DIKHAN	PHARPUR	KP/60/18/057	F	26	17-08-18	7+	LATE NOTIFIED			EV	N	N	Y	104
73	DIKHAN	DERA ISMAIL KHAN	KP/60/18/062	F	48	10-08-18	7+	31-08-18	01-09-18	VACC	Y	N	Y		111
74	DIRUPPER	DIR	KP/25/18/051	M	84	25-08-18	7+	29-09-18	30-09-18	NVI	Y	N	Y		96
75	HANGU	THALL	KP/54/18/030	F	96	20-08-18	7+	20-09-18	22-09-18	NVI	Y	Y	Y	Y	101
76	KOHAT	DARRA ADAM KHEL	KP/50/18/044	M	84	23-07-18	7+	08-08-18	10-08-18	NVI	N	Y	Y		129
77	KOHAT	KOHAT	KP/50/18/047	M	10	26-08-18	0	DIED BEFORE STOOL			Y	Y	Y	DIED	95
78	KOHISTAN	DASSU	KP/13/18/006	M	164	25-02-18	7+	21-03-18	22-03-18	NVI	Y	N	N	Y	277
79	KOHISTAN	DASSU	KP/13/18/019	M	30	31-07-18	7+	09-08-18		EV	Y	Y	Y		121
80	KOHISTAN	DASSU	KP/13/18/020	F	24	13-08-18	1	DIED BEFORE STOOL			Y	N	Y	DIED	108
81	KOHISTAN	PATTANA	KP/13/18/022	M	24	26-08-18	7+	05-10-18	06-10-18	NVI	Y	Y	Y		95
82	KOHISTAN	PATTANA	KP/13/18/023	F	36	28-08-18	7+	05-10-18	06-10-18	EV	Y	N	Y		93
83	LAKKIMRWT	SERAI NAURANG	KP/62/18/019	M	10	20-02-18	7+	25-03-18	26-03-18	EV	Y	Y	Y	Y	282
84	LAKKIMRWT	LAKKI MARWAT	KP/62/18/058	M	26	24-05-18	7+	25-06-18	26-06-18	EV	Y	Y	Y	Y	189

* Afp.rec Data as of 03-12-2018

€ Based on recall of parents

60 days Follow-up not done

FUP = Residual Weakness at 60 days follow up.

**Table 7.4: AFP CASES PENDING FOR CLASSIFICATION
WITH DATE OF ONSET MORE THAN 90 DAYS* 2018 Page (3/3)**

S. No	DISTRICT	TEHSIL	EPID	SEX	AGE	DONSET	DOSESE	DSTOOL1	DSTOOL2	LAB	FEVER	ASVM	PROG	FUP	PEND (DAYS)
85	LAKKIMRWT	LAKKI MARWAT	KP/62/18/084	M	22	20-06-18	7+	LATE NOTIFIED			N	N	N		162
86	MALAKAND	BATKHELA	KP/20/18/056	M	20	16-06-18	7+	LATE NOTIFIED			Y	Y	Y	Y	166
87	MANSEHRA	UGGI	KP/14/18/042	F	36	22-08-18	7+	02-09-18	11-09-18	NVI	Y	N	Y	Y	99
88	NOWSHERA	NOWSHERA	KP/32/18/051	M	13	27-04-18	7+	06-06-18	07-06-18	EV	Y	Y	Y	Y	216
89	NOWSHERA	NOWSHERA	KP/32/18/098	M	72	27-08-18	7+	05-10-18	06-10-18	NVI	Y	Y	Y		94
90	PESHAWAR	PESHAWAR	KP/30/18/228	F	16	02-07-18	7+	LATE NOTIFIED			N	Y	Y	Y	150
91	SWABI	TOPI	KP/41/18/109	M	1	30-08-18	1	19-09-18	21-09-18	EV	N	N	Y	DIED	91
92	TORGHAR	JUDBAH	KP/15/18/009	F	26	24-07-18	2	LATE NOTIFIED			Y	N	N	Y	128
93	PISHIN	PISHIN	BN/12/18/033	F	61	10-08-18	7+	10-10-18	14-10-18	NVI	Y	N	Y	Y	111
94	BHIMBER	BARNALA	AJ/60/18/023	F	68	25-08-18	7+	15-09-18	16-09-18	EV	Y	N	Y	DIED	96
95	SHIGAR	SHIGAR	GB/24/18/009	F	132	23-08-18	7+	03-09-18	08-09-18	VACC	N	N	Y		98
96	CDA	CDA	IB/01/18/022	M	68	04-06-18	7+	15-06-18	20-06-18	EV	N	Y	Y		178
97	CDA	CDA	IB/01/18/025	F	39	20-07-18	7+	04-08-18	06-08-18	NVI	Y	Y	Y		132
98	CDA	CDA	IB/01/18/028	F	96	08-08-18	7+	26-08-18	01-09-18	NVI	Y	N	Y		113
99	CDA	CDA	IB/01/18/029	F	9	11-07-18	7+	31-08-18	01-09-18	NVI	UK	UK	UK		141
100	CDA	CDA	IB/01/18/030	M	24	28-08-18	7+	31-08-18		NVI	Y	Y	Y		93
101	ICT	ICT	IB/02/18/034	M	41	12-07-18	7+	03-08-18	04-08-18	NVI	N	N	Y		140
102	ICT	ICT	IB/02/18/038	M	120	07-07-18	7+	16-08-18	17-08-18	EV	UK	UK	UK		145
103	ICT	ICT	IB/02/18/037	F	120	24-07-18	7+	17-08-18	19-08-18	NVI	UK	UK	UK		128
104	ICT	ICT	IB/02/18/043	F	150	07-08-18	7+	04-09-18	06-09-18	NVI	Y	Y	Y		114
105	ICT	ICT	IB/02/18/046	F	153	16-06-18	3	LATE NOTIFIED			N	Y	Y		166
106	ICT	ICT	IB/02/18/053	F	28	25-08-18	7+	25-09-18	26-09-18	NVI	Y	Y	Y		96
107	ICT	ICT	IB/02/18/060	F	84	22-08-18	7+	14-10-18	15-10-18	EV	N	N	Y		99
108	ICT	ICT	IB/02/18/069	M	18	25-08-18	7+	LATE NOTIFIED			Y	Y	Y		96

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€ Based on recall of parents

60 days Follow-up not done

FUP = Residual Weakness at 60 days follow up.