

## **Highlights of Polio Fax Bulletin No. 1047 for Week 43 2018**

### **I. Poliovirus Transmission**

#### **1. Endemic countries (PAKISTAN & AFGHANISTAN):**

- a. Human samples: Three new wild poliovirus type-1 (WPV1) cases were reported this week from Afghanistan. Total WPV1 cases for 2018 to date are 25 cases (19 from Afghanistan and 6 from Pakistan).
  - i. Afghanistan: Three new WPV1 cases reported from Afghanistan this week. New cases include a 14-month old male child from the newly infected Maywand district, Kandahar province with date of onset of paralysis 24 September 2018. The child reportedly received 4 doses of OPV during supplementary immunization activities (SIAs). The second WPV1 case is from the newly infected district Poruns, newly infected province Nuristan with date of onset of paralysis 26 September 2018. The 5-month old female child received reportedly 7 doses of OPV including 3 doses from routine and 4 during SIAs. The third WPV1 case is from Nawazad district, Hilmand province, with date of onset of paralysis 2 October 2018. The 24-month old female child received 3 doses of OPV during SIAs.
  - ii. The total number of WPV1 cases in Afghanistan in 2018 to date is 19 from six provinces (Hilmand-3 cases, Kandhar-9 cases, Kunar-3 cases, Nangarhar-2 cases, Uruzgan-1 case and Nuristan-1 case). The most recent reported case has date of onset of paralysis on 2 October 2018.
  - iii. Pakistan: The total number of WPV1 cases in Pakistan in 2018 to date is six. Cases are from four infected districts in four provinces (Balochistan-3 cases, Khyber Pakhtunkhwa-1 case, Khyber Pakhtunkhwa Tribal District-1 case and Sindh-1 case). Date of onset of paralysis of the most recent case is 25 September 2018.
- b. Environmental samples: Eleven new positive environmental samples for WPV1 reported this week - four from Afghanistan and seven from Pakistan.
  - i. Afghanistan: Four new positive environmental samples reported this week include one from Lashkargah district, Hilmand province and three from Kandahar district, Kandahar province. This brings the total positive environmental samples from Afghanistan in 2018 to date to 50 with most recent positive sample collected on 3 October 2018.
  - ii. Pakistan: Seven new positive environmental samples reported this week. These include one each from CDA district, Islamabad province, Karachi Gadap town from Sindh province, Peshawar district from Khyber Pakhtunkhwa; and two each from Lahore district and Rawalpindi districts from Punjab province. This brings the total positive environmental samples from Pakistan in 2018 to date to 96 with most recent positive sample collected on 11 October 2018.

## II. **Outbreak response countries**

### 1. SOMALIA:

#### ○ cVDPV2:

- a. No new cVDPV2 cases reported this week. The date of onset of the most recent cVDPV2 is 2 September 2018.
- b. Four new VDPV2 positive environmental samples were reported this week. These include 3 cVDPV2 and 1 aVDPV2. In 2018 to date, VDPV2 has been isolated from 17 sewage samples in Mogadishu and date of specimen collection of recent most positive sample is 20 September 2018. One of the above 17 samples has co-infection of cVDPV2 and cVDPV3.

#### ○ cVDPV3:

- a. No new cVDPV3 case was reported this week. The date of onset of the most recent cVDPV3 is 7 September.
- b. No new cVDPV3 positive environmental sample was reported this week. In 2018 so far, cVDPV3 isolated from 10 sewage samples in Mogadishu and date of specimen collection of recent most positive sample is 23 August 2018. One of the above 10 samples has co-infection of cVDPV2 and cVDPV3.

In 2018, Somalia has reported 12 cVDPV cases so far. They include five cases of cVDPV2, six cases of cVDPV3, and one case having co-infection with cVDPV2 and cVDPV3.

## III. **Surveillance performance indicators**

1. Nineteen of 22 member states are meeting the global target of both key surveillance indicators, namely non polio AFP rate of 2 per 100,000 children aged below 15 years and percent AFP cases with adequate specimen 80% and above.
  - Djibouti is missing both indicators. Djibouti, did not report any AFP case since April 2017.
  - Morocco has a percentage of AFP cases with adequate stool specimens of 70.3%
  - Oman has a percentage of AFP cases with adequate stool specimens of 75.0%
2. Yemen has the highest number of 2017 AFP cases, which are not yet finally classified (73). Also Somalia has one pending case from 2017.



AFP SURVEILLANCE

29-Oct-18

Week 43, ending 28 October 2018

Number 1047

Table 1: Acute Flaccid Paralysis (AFP) cases by week of onset

Country	Reported AFP cases by week of onset - Week (43/18) / Ending on : 28/10/2018														
	Total AFP 2016	Total AFP 2017	Total AFP to date, 2018	W32 12 Aug 18	W33 19 Aug 18	W34 26 Aug 18	W35 02 Sep 18	W36 09 Sep 18	W37 16 Sep 18	W38 23 Sep 18	W39 30 Sep 18	W40 07 Oct 18	W41 14 Oct 18	W42 21 Oct 18	W43 28 Oct 18
Afghanistan	2905	3094	2725	52	32	50	65	53	80	72	72	81	44	39	8
Bahrain	14	18	26	1	1	0	1	1	0	0	1	0	0	2	0
Djibouti	3	4	0	0	0	0	0	0	0						
Egypt	1092	1242	1028	22	11	21	21	20	28	31	19	28	32	9	
Iran	776	820	684	23	11	13	13	25	14	13	20	14	5	0	
Iraq	605	699	768	13	6	14	13	20	25	20	9	17	16	8	
Jordan ****	107	116	106	1	0	0	1	4	3	1	2	1	3	1	
Kuwait	50	69	52	1	0	1	0	0	1	0	0	2	1	1	1
Lebanon ****	111	75	73	2	2	2	1	0	2	3	1	0	2	1	
Libya	70	88	104	2	1	5	5	4	3	2	4	1	1	0	
Morocco	84	143	145	2	3	2	1	6	2	6	6	2			
Oman	39	40	24	0	0	0	1	1	1	1	3	1	1	0	0
Pakistan	7848	10319	9294	246	179	220	244	247	201	262	221	185	226	106	4
Palestine ****	46	43	37	0	3	0	1	1	1	1	0	0	0		
Qatar	9	18	9	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	273	276	154	3	1	2	6	5	3	2	3	1	1	0	0
Somalia	316	345	293	6	3	7	14	10	6	10	7	10	3	3	0
Sudan	509	570	479	6	5	7	15	11	11	19	15	12	7	4	0
Syria ****	303	362	285	3	1	5	4	4	9	4	4	7	12	5	
Tunisia	90	67	57	0	2	2	1	0	0	0	1	1	0	0	
U.A.E	42	58	35	0	1	1	1	0	1	0	0	1	1	0	0
Yemen	715	713	544	11	8	9	14	12	8	7	10	11	9	9	
<b>Total EMR</b>	<b>16007</b>	<b>19179</b>	<b>16922</b>	<b>394</b>	<b>270</b>	<b>361</b>	<b>422</b>	<b>424</b>	<b>399</b>	<b>454</b>	<b>398</b>	<b>375</b>	<b>364</b>	<b>188</b>	<b>13</b>

□ No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2016	Total year 2017	28/10		Confirmed polio cases by month of onset											
			2017	2018	November 2017	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018
Afghanistan	13	14	10	19	2	2	3	3	1	1	0	2	3	2	3	1
Bahrain	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Djibouti	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Jordan ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Lebanon ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Libya	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Morocco	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	20	8	5	6	3	0	0	0	1	1	1	0	0	1	2	
Palestine ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Qatar	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Somalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sudan	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Syria ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
U.A.E	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Yemen	0	0	0	0												
<b>Total EMR</b>	<b>33</b>	<b>22</b>	<b>15</b>	<b>25</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>1</b>

\*\*\*\* UNRWA cases are included with those of country of residence



Table 3: Investigation of AFP cases with paralysis onset in 2017 & 2018 up to Week (43/18) / Ending on : 28/10/2018)

COUNTRY	2017											2018											Latest line List Date		
	AFP									Specimen	Wild cases ****		AFP									Specimen		Wild cases ****	
	Total AFP cases onset 2017	Case classification					Non polio AFP rate **	AFP cases pending classification > 90 days from onset of paralysis	AFP cases pending classification and lab > 90 days from onset of paralysis	% with *** adequate specimens	Wild P1 Poliovirus	Wild P3 Poliovirus	Total AFP cases onset 2018	Case classification					Annualized Non polio AFP rate **	AFP cases pending classification > 90 days from onset of paralysis	AFP cases pending classification and lab > 90 days from onset of paralysis	% with *** adequate specimens		Wild P1 Poliovirus	Wild P3 Poliovirus
		Total Confirmed Polio Cases *	Polio Compatible	Pending Classification	Discarded (non polio AFP)	VDPV								Total Confirmed Polio Cases *	Polio Compatible	Pending Classification	Discarded (non polio AFP)	VDPV							
Afghanistan	3094	14	0	0	3080	0	15.2	0	0	93.5	14	0	2725	19	0	183	2523	0	16.2	16	2	94.4	19	0	28/10/2018
Bahrain	18	0	0	0	18	0	6.2	0	0	100.0	0	0	26	0	0	8	18	0	10.9	1	0	96.2	0	0	28/10/2018
Djibouti	4	0	0	0	4	0	1.3	0	0	100.0	0	0	0	0	0	0	0	0	0.0	0	0		0	0	16/09/2018
Egypt	1242	0	0	0	1240	2	3.3	0	0	94.4	0	0	1028	0	0	81	947	0	3.2	1	0	92.7	0	0	25/10/2018
Iran	820	0	0	0	820	0	4.3	0	0	96.7	0	0	684	0	0	14	669	1	4.3	0	0	96.9	0	0	27/10/2018
Iraq	699	0	0	0	699	0	4.7	0	0	86.7	0	0	768	0	0	64	704	0	6.1	11	1	89.7	0	0	25/10/2018
Jordan	116	0	0	0	116	0	4.2	0	0	100.0	0	0	106	0	0	5	101	0	4.6	0	0	99.1	0	0	25/10/2018
Kuwait	69	0	0	0	69	0	7.5	0	0	92.8	0	0	52	0	0	4	48	0	7.1	0	0	90.4	0	0	28/10/2018
Lebanon	75	0	0	0	75	0	4.0	0	0	80.0	0	0	73	0	0	5	68	0	4.8	0	0	97.3	0	0	26/10/2018
Libya	88	0	0	0	88	0	4.3	0	0	96.6	0	0	104	0	0	11	93	0	5.0	2	1	96.2	0	0	27/10/2018
Morocco	143	0	0	0	143	0	1.3	0	0	67.1	0	0	145	0	0	49	96	0	1.9	22	0	70.3	0	0	12/10/2018
Oman	40	0	0	0	40	0	4.5	0	0	90.0	0	0	24	0	0	4	20	0	3.4	0	0	75.0	0	0	28/10/2018
Pakistan	10319	8	2	0	10309	0	13.2	0	0	85.6	8	0	9294	6	1	742	8545	0	14.4	111	0	88.3	6	0	28/10/2018
Palestine	43	0	0	0	43	0	2.3	0	0	97.7	0	0	37	0	0	8	29	0	2.4	1	0	91.9	0	0	14/10/2018
Qatar	18	0	0	0	18	0	6.1	0	0	100.0	0	0	9	0	0	0	9	0	3.1	0	0	100.0	0	0	28/10/2017
Saudi Arabia	276	0	0	0	276	0	3.5	0	0	98.9	0	0	154	0	0	42	112	0	2.3	13	0	95.5	0	0	28/10/2018
Somalia	345	0	0	1	344	0	6.0	1	1	99.1	0	0	293	0	0	17	264	12	5.6	2	2	98.0	0	0	29/10/2018
Sudan	570	0	0	0	570	0	3.2	0	0	96.3	0	0	479	0	0	20	459	0	3.2	3	0	97.9	0	0	28/10/2018
Syria	362	0	1	0	287	74	4.7	0	0	80.9	0	0	285	0	0	26	259	0	4.5	0	0	87.0	0	0	27/10/2018
Tunisia	67	0	0	0	67	0	2.5	0	0	74.6	0	0	57	0	0	9	48	0	2.6	2	2	80.7	0	0	26/10/2018
U.A.E	58	0	0	0	58	0	5.7	0	0	98.3	0	0	35	0	0	4	31	0	3.4	0	0	97.1	0	0	28/10/2018
Yemen	713	0	0	73	640	0	5.2	73	58	90.2	0	0	544	0	0	476	68	0	4.7	350	328	93.4	0	0	27/10/2018
EMR	19179	22	3	74	19004	76	7.7	74	59	88.9	22	0	16922	25	1	1772	15111	13	8.2	535	336	90.6	25	0	
2016	16008	33	5	1	15961	8	6.4	0	0	89.6	33	0													

\* Confirmed polio cases refer to wild isolation from AFP cases or from contacts of negative index AFP cases

\*\* Non-polio AFP per 100,000 children <15 years

\*\*\* Adequate here refers to two stool specimens collected at least 24 hours apart, within 14 days of paralysis onset and specimens received in the lab in Good Condition

\*\*\*\* AFP cases co infected with P1 and P3 are counted separately as wild isolates



World Health Organization – Regional Office for Eastern Mediterranean  
AFP SURVEILLANCE  
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Table 4 (a): Lab results of contacts' samples in EMR, 2017 - 2018

COUNTRY	2017						2018					
	# OF CONTACTS	LAB RESULTS					# OF CONTACTS	LAB RESULTS				
		WILD	VDPV	SL	NPEV	PENDING		WILD	VDPV	SL	NPEV	PENDING
AFG	1424	1	0	88	347	0	774	4	0	42	159	25
BAH	2	0	0	0	0	0	2	0	0	0	0	0
DJI	0	0	0	0	0	0	0	0	0	0	0	0
EGY	450	0	0	9	63	18	384	0	0	11	48	23
IRN	143	0	0	5	1	0	121	0	0	2	5	0
IRQ	698	0	0	18	101	16	640	0	0	17	77	36
JOR	2	0	0	0	0	0	0	0	0	0	0	0
KUW	8	0	0	0	0	2	0	0	0	0	0	0
LEB	92	0	0	2	3	21	203	0	0	3	15	18
LIB	4	0	0	0	0	1	0	0	0	0	0	0
MOR	87	0	0	0	7	0	75	0	0	0	8	9
OMA	115	0	0	1	24	1	59	0	0	1	10	8
PAK	3758	2	0	234	897	0	3323	1	0	140	737	123
PAL	0	0	0	0	0	0	0	0	0	0	0	0
QAT	0	0	0	0	0	0	0	0	0	0	0	0
SAA	0	0	0	0	0	0	5	0	0	0	0	5
SOM	1035	0	0	37	113	3	872	0	10	32	96	42
SUD	385	0	0	6	32	46	293	0	0	2	22	92
SYR	570	0	63	3	11	0	537	0		3	9	32
TUN	26	0	0	0	0	0	13	0	0	0	0	1
UAE	2	0	0	0	0	0	0	0	0	0	0	0
YEM	1737	0	0	43	114	667	1156	0	0	0	0	1156
<b>EMR</b>	<b>10538</b>	<b>3</b>	<b>63</b>	<b>446</b>	<b>1713</b>	<b>775</b>	<b>8457</b>	<b>5</b>	<b>10</b>	<b>253</b>	<b>1186</b>	<b>1570</b>

Table 4 (B): Most recent wild contacts in EMRO, 2017 - 2018

Year	Country	Data	
		Count of wild contacts	Date of Most Recent stool collection
2018	Afghanistan	4	07-08-18
	Pakistan	1	08-05-18
<b>2018 Total</b>		<b>5</b>	<b>07-08-18</b>
2017	Pakistan	2	04-12-17
	Afghanistan	1	21-05-17
<b>2017 Total</b>		<b>3</b>	<b>04-12-17</b>

Table 4 (C): Number and distribution by district of -ve index AFP cases identified as wild positive by contact in EMR, 2017-2018

YEAR	COUNTRY	PROVINCE	DISTRICT	COUNT	First case	Last case
2018	AFG	NANGARHAR	PACHIERAGAM	1	17-Jul-18	17-Jul-18
		URUZGAN	SHAHID-E-HASSA	1	8-Jul-18	8-Jul-18
	PAK	BALOCHISTAN	DUKKI	1	15-Apr-18	15-Apr-18
<b>2018 Total</b>				<b>3</b>	<b>15-Apr-18</b>	<b>17-Jul-18</b>
2017	AFG	HILMAND	NAWZAD	1	16-Apr-17	16-Apr-17
	<b>2017 Total</b>				<b>1</b>	<b>16-Apr-17</b>



**Table 5: Laboratory investigation of AFP cases with paralysis onset in 2018 up to Week (43/18) / Ending on : (28/10/2018)**

Country	Polio laboratories  (Nucleotide Sequencing performed by EGY, PAK, TUN, CDC and RIVM laboratories)	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results #										Indicators				Latest report Date			
			Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant pending sequence	NPEV by PCR	Non-EV	Pending ITD	% specimens positive for NPEV*		% AFP cases with culture results within 14 days	% AFP cases with ITD results within 7 days	% AFP cases with ITD results within 45 days of onset**
			L20B+	L20B+INPEV			received < / = 14 days	received > 14 days ago	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV									
Afghanistan	RRL Pakistan	2657	195	20	500	1854	86	2	17	150										17%	89%	100%	98%	28/10/2018		
Bahrain	NPL Oman / CDC	24			1	23														4%	100%		50%	29/10/2018		
Djibouti	NPL Kenya / CDC																							16/09/2018		
Egypt***	RRL Egypt	1004	27	6	132	786	46	7		15								6		12%	94%	100%	99%	25/10/2018		
Iran	NPL Iran / CDC	710	16		19	654	21			10	1									2%	100%	100%	99%	28/10/2018		
Iraq	RRL Egypt	769	17		87	622	31	12		11										12%	100%	100%	76%	25/10/2018		
Jordan	NPL Jordan / RRL EGYPT	105	4		5	95	1			3										7%	100%	100%	100%	28/10/2018		
Kuwait	RRL Kuwait / RIVM	50	1		4	41	1	3										1		6%	96%		98%	18/10/2018		
Lebanon	NPL Jordan / RRL EGYPT	75	2		4	68		1		2										8%	100%	100%	50%	28/10/2018		
Libya	RRL Tunisia / RIVM	102	1		11	87	1	2												10%	100%	100%	98%	19/10/2018		
Morocco	NPL Morocco / RRL Tunisia	139	1		2	120	14	2												3%	90%	0%	94%	26/10/2018		
Oman	NPL Oman / CDC	26			5	18	3	1												24%	91%		100%	29/10/2018		
Pakistan	RRL Pakistan	9072	374	41	1935	6267	444	9	5	249									10	19%	90%	99%	97%	28/10/2018		
Palestine & UNRWA		37			6	29		2												17%	60%		100%	14/10/2018		
Qatar	NPL Oman / CDC	9			1	8														11%	88%		100%	29/10/2018		
Saudi Arabia	NPL Saudi Arabia / CDC	161	2		2	153	4													1%	97%	50%	100%	28/10/2018		
Somalia	NPL Kenya / CDC	293	31	1	25	222	5	9		9		4	6 #		9	7 #			5	9%	14%		100%	29/10/2018		
Sudan	NPL Sudan / RRL Egypt	482	5		43	420	14			4					1				1	11%	96%	100%	83%	28/10/2018		
Syria	NPL Syria / RRL Egypt	284	3		8	251	19	3		1					2					3%	100%	100%	50%	25/10/2018		
Tunisia	RRL Tunisia	64			2	58	2	2												2%	98%		97%	19/10/2018		
U.A.E	NPL Oman / CDC	35			4	29	2													11%	88%		82%	29/10/2018		
Yemen	NPL Kenya / CDC																							27/10/2018		
<b>Total EMR 2018</b>		16098	679	68	2796	11805	694	55	22	454	1	4	6		479	7	1	17	8	15%	91%	99%	97%			
<b>Total EMR 2017</b>		13527	558	50	2219	10038	608	55	15	369	1	4	4		394	3	1	12	1	15%	89%	99%	97%			

\* Specimens from all sources including non-AFP cases, excluding environmental samples

\*\* This indicator reflects surveillance and laboratory activities

\* In 2017, 41 cVDPV2 were isolated from Syria by other Global Polio Laboratories Network (GPLN)

Syria reported a total of 74 cVDPV2 cases in 2017 out of which 8 were identified by positive contacts

# Somalia in 2018 so far has a total of 12 cVDPV cases (5 cVDPV2, 6 cVDPV3 & 1 coinfection cVDPV2/cVDPV3)



Table 6: Environmental isolate by year and type

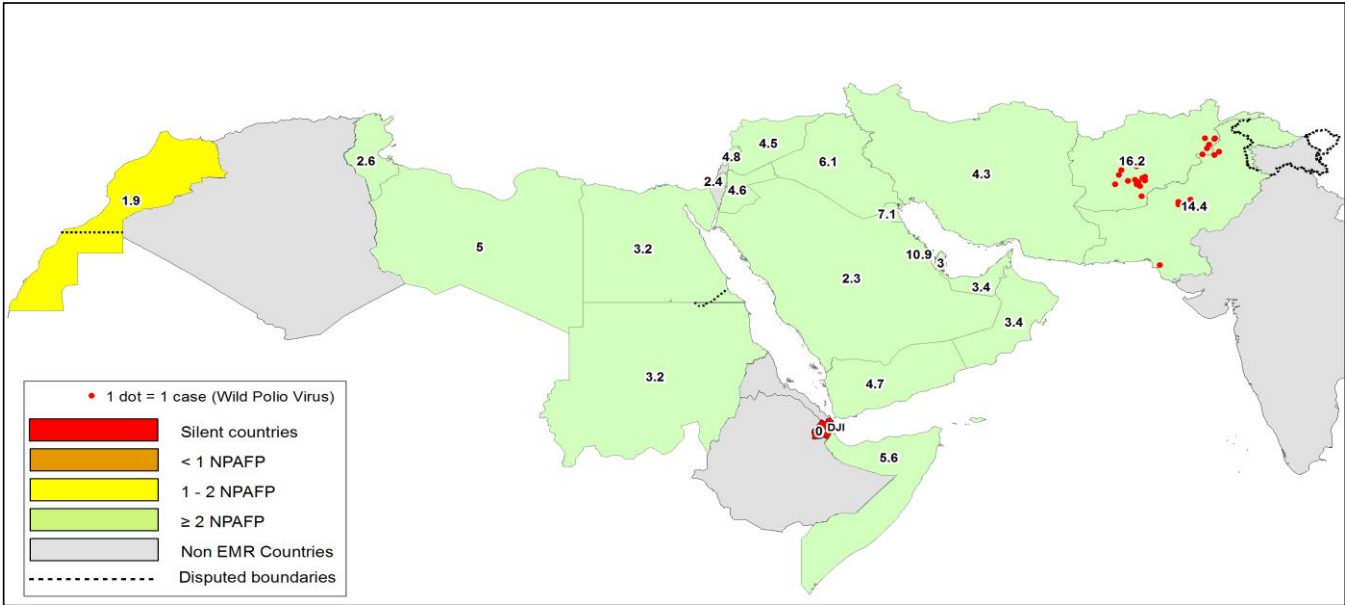
Country	Status	2015	2016	2017	2018
AFG	NEGATIVE	129	183	274	206
	PENDING				4
	WILD	20	2	42	50
<b>AFG Total</b>		<b>149</b>	<b>185</b>	<b>316</b>	<b>260</b>
EGY	NEGATIVE	495	528	522	416
	PENDING				25
	VDPV2	3	1		
<b>EGY Total</b>		<b>498</b>	<b>529</b>	<b>522</b>	<b>441</b>
IRN	NEGATIVE			6	38
<b>IRN Total</b>				<b>6</b>	<b>38</b>
JOR	NEGATIVE		2	32	15
	PENDING				15
<b>JOR Total</b>			<b>2</b>	<b>32</b>	<b>30</b>
LEB	NEGATIVE		4	27	10
	PENDING				23
<b>LEB Total</b>			<b>4</b>	<b>27</b>	<b>33</b>
PAK	NEGATIVE	347	462	523	421
	PENDING				30
	WILD	79	59	105	96
	WILD & VDPV2	5	3	1	
	VDPV2	8	5	4	
<b>PAK Total</b>		<b>439</b>	<b>529</b>	<b>633</b>	<b>547</b>
SOM	NEGATIVE			34	135
	PENDING				12
	VDPV2			2	17
	VDPV3				10
<b>SOM Total</b>			<b>36</b>	<b>174</b>	
SYR	NEGATIVE			4	67
	PENDING				10
<b>SYR Total</b>				<b>4</b>	<b>77</b>
<b>Grand Total</b>		<b>1086</b>	<b>1249</b>	<b>1576</b>	<b>1600</b>

Table 7: Environmental Wild/VDPV isolate by site

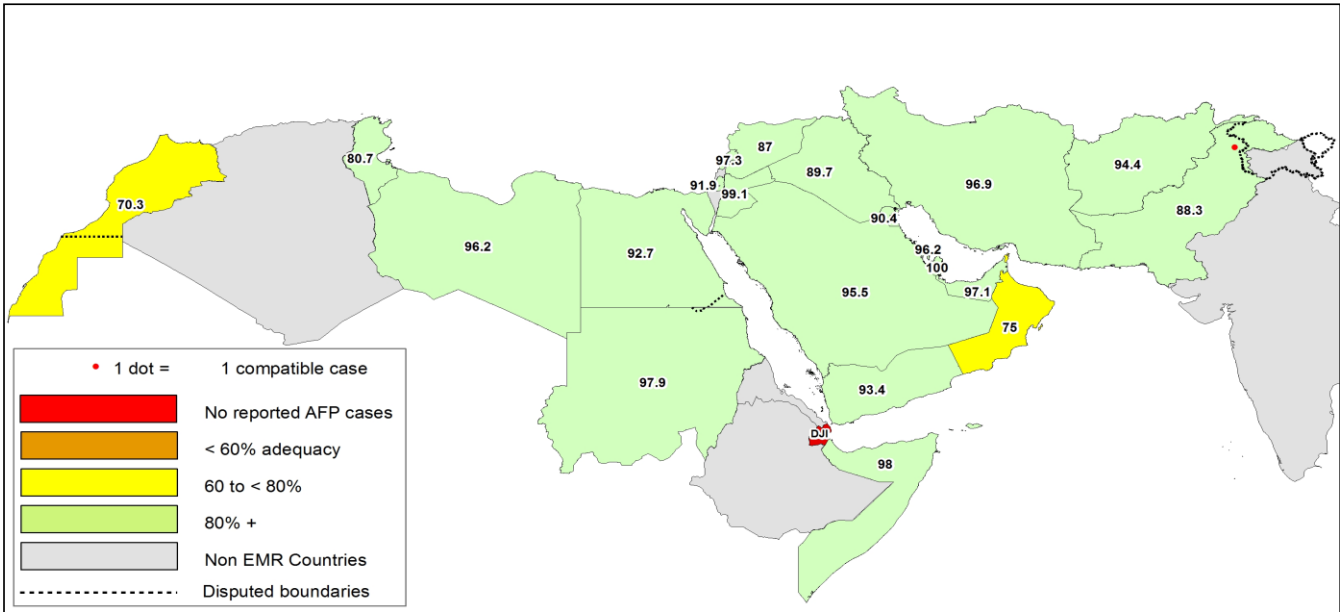
Country	COUNTRY	Status	PROVINCE	DISTRICT	Count	First date	Last date	
2017	AFG	WILD	HILMAND	LASHKARGAH	8	26/Apr	26/Dec	
				NAHR-E-SARAJ	1	25/Sep	25/Sep	
				KABUL	1	25/Oct	25/Oct	
				KANDAHAR	18	26/Jan	27/Dec	
				ASADABAD	1	25/Dec	25/Dec	
				BEHSUD	3	24/Sep	26/Dec	
				JALALABAD	10	24/Jan	26/Dec	
	<b>AFG Total</b>				<b>42</b>	<b>24/Jan</b>	<b>27/Dec</b>	
	PAK	WILD	BALOCHISTAN	LORALAI	3	17/Sep	17/Nov	
				PISHIN	5	2/Jan	2/Oct	
				QUETTA	12	1/Jan	20/Dec	
				ZHOB	1	18/Dec	18/Dec	
				KABDULAH	12	1/Jan	15/Oct	
				ISLAMABAD	CDA	5	10/Feb	10/Jul
				PUNJAB	LAHORE	1	18/Dec	18/Dec
				MULTAN	1	9/Jan	9/Jan	
				RAWALPINDI	8	10/Jan	10/Oct	
				SINDH	JACOBABAD	4	11/Aug	13/Dec
				KAMBAR	1	15/Aug	15/Aug	
KHIBALDIA				2	8/Aug	3/Nov		
KHIGADAP	21	9/Jan	12/Dec					
KHIKORANGI	1	16/Oct	16/Oct					
KHILANDHI	7	16/Mar	14/Dec					
KHISITE	5	7/Aug	4/Dec					
SUKKUR	2	11/Apr	19/Sep					
KHIMALIR	6	3/Feb	10/Oct					
KHYBER PAKHTUNKHWA	PESHAWAR	8	10/Jan	11/Dec				
WILD & VDPV2	BALOCHISTAN	KABDULAH	1	15/Jul	15/Jul			
VDPV2	BALOCHISTAN	PISHIN	1	2/May	2/May			
		QUETTA	3	3/Apr	29/May			
<b>PAK Total</b>				<b>110</b>	<b>1/Jan</b>	<b>20/Dec</b>		
SOM	VDPV2	BANADIR	WABERI	2	22/Oct	2/Nov		
<b>SOM Total</b>				<b>2</b>	<b>22/Oct</b>	<b>2/Nov</b>		
<b>2017 Total</b>				<b>154</b>	<b>1/Jan</b>	<b>27/Dec</b>		
2018	AFG	WILD	HILMAND	LASHKARGAH	2	8/Jan	25/Sep	
				HERAT	1	25/Jun	25/Jun	
				KABUL	3	26/Feb	26/Jun	
				KANDAHAR	28	8/Jan	3/Oct	
				KHOST	1	25/Sep	25/Sep	
				ASADABAD	2	24/Apr	25/Sep	
				BEHSUD	2	28/Jan	25/Feb	
				JALALABAD	11	27/Jan	25/Jul	
	<b>AFG Total</b>				<b>50</b>	<b>8/Jan</b>	<b>3/Oct</b>	
	PAK	WILD	BALOCHISTAN	LORALAI	2	17/Mar	17/Aug	
				QUETTA	7	13/Feb	20/Sep	
				KABDULAH	4	1/Jan	1/Oct	
				ISLAMABAD	CDA	6	10/Jan	10/Oct
				PUNJAB	LAHORE	7	11/Jun	11/Oct
				RAWALPINDI	11	10/Jan	10/Oct	
				DGKHAN	2	12/Feb	12/Sep	
				HYDERABAD	1	9/Feb	9/Feb	
				JACOBABAD	3	12/Feb	12/Sep	
				KAMBAR	3	7/Apr	9/Jul	
				KHIBALDIA	2	1/Aug	4/Sep	
				KHIGADAP	12	15/Feb	10/Oct	
				KHILANDHI	3	10/Jan	30/Jul	
				KHISITE	2	1/Jan	3/Sep	
				SUKKUR	1	8/Feb	8/Feb	
				KHILIAQAT	1	7/Mar	7/Mar	
				KHISADDAR	1	10/Sep	10/Sep	
				KHIMALIR	1	13/Sep	13/Sep	
				BAJOUR	4	19/May	24/Sep	
				KHYBER PAKHTUNKHWA	BANNU	1	31/Mar	31/Mar
	KOHAT	5	5/Jan	27/Sep				
	NOWSHERA	1	18/Sep	18/Sep				
	PESHAWAR	16	10/Jan	10/Oct				
	<b>PAK Total</b>				<b>96</b>	<b>1/Jan</b>	<b>11/Oct</b>	
SOM	VDPV2	BANADIR	HAMAR WEYN	10	4/Jan	13/Sep		
			HODAN	1	22/Feb	22/Feb		
			WABERI	6	1/Mar	20/Sep		
			HAMAR WEYN	5	8/Mar	5/Apr		
	VDPV3	BANADIR	WABERI	5	8/Mar	23/Aug		
<b>SOM Total</b>				<b>27</b>	<b>4/Jan</b>	<b>20/Sep</b>		
<b>2018 Total</b>				<b>173</b>	<b>1/Jan</b>	<b>11/Oct</b>		



**Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2018 - 28/10/2018**



**Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2018 - 28/10/2018**



**Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2017 - 2018**

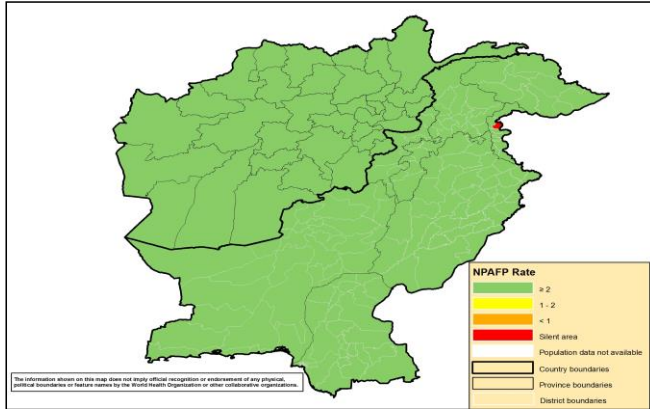
Year	COUNTRY	P1		
		Count	First Case	Last Case
2018	AFG	19	1/1/2018	10/2/2018
	PAK	6	3/8/2018	9/25/2018
2018 Total		25	1/1/2018	10/2/2018
2017	AFG	14	1/13/2017	12/28/2017
	PAK	8	1/28/2017	11/15/2017
2017 Total		22	1/13/2017	12/28/2017

Last reported wild Polio P3 from Pakistan with date of onset 18/04/2012

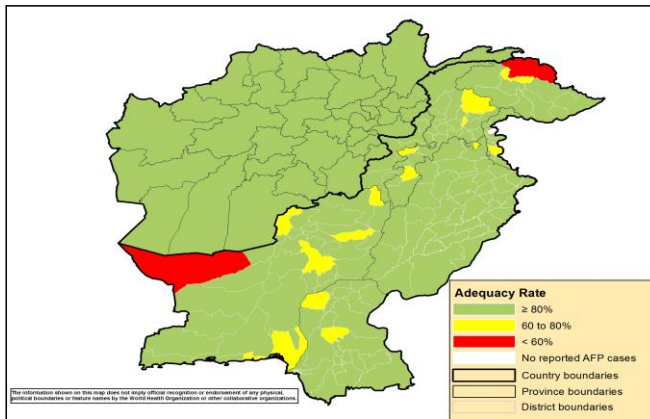




**Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2018 - 28/10/2018**

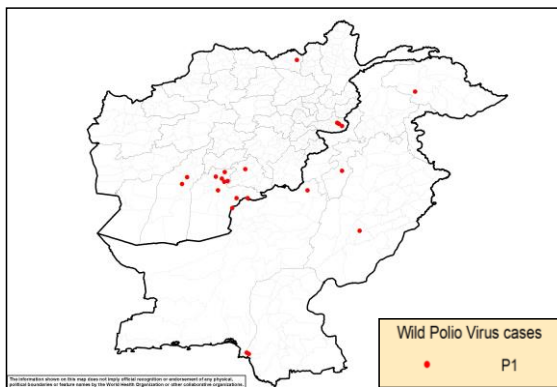


**Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2018 - 28/10/2018**



**Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan**

**5a: 01/01/2017 - 31/12/2017**



**5b: 01/01/2018 - 28/10/2018**

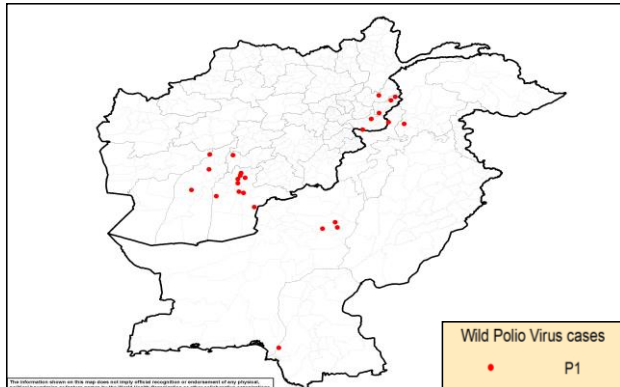




Table 9: Wild Polio cases by district and date of onset of paralysis, Afghanistan 2017-2018						
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case	
2018	HILMAND	NAWZAD	2	1-Sep-18	2-Oct-18	
		NAD-E-ALI	1	1-Jun-18	1-Jun-18	
	NURISTAN	PORUNS	1	26-Sep-18	26-Sep-18	
	KANDAHAR	MAYWAND	1	24-Sep-18	24-Sep-18	
		KANDAHAR	2	11-Aug-18	27-Aug-18	
		ARGHANDAB (K)	1	17-Jul-18	17-Jul-18	
		SHAHWALIKOT	3	5-Jan-18	27-Apr-18	
		KHAKREZ	1	25-Feb-18	25-Feb-18	
		SPINBOLDAK	1	6-Jan-18	6-Jan-18	
	NANGARHAR	PACHIERAGAM	1	17-Jul-18	17-Jul-18	
		KAMA	1	1-Jan-18	1-Jan-18	
	URUZGAN	SHAHID-E-HASSAS	1	8-Jul-18	8-Jul-18	
	KUNAR	CHAWKAY	1	22-Jun-18	22-Jun-18	
		GHAZIABAD	2	14-Feb-18	3-Mar-18	
2018 Total			19	1-Jan-18	2-Oct-18	
2017	KANDAHAR	SPINBOLDAK	1	28-Dec-17	28-Dec-17	
		SHAHWALIKOT	5	19-Jun-17	3-Dec-17	
		KANDAHAR	1	13-Jan-17	13-Jan-17	
	NANGARHAR	MUHMAND DARA	1	5-Nov-17	5-Nov-17	
		BATIKOT	2	15-Sep-17	11-Oct-17	
	ZABUL	ARGHANDAB (Z)	1	10-Jul-17	10-Jul-17	
	HILMAND	NAWZAD	1	16-Apr-17	16-Apr-17	
		NAHR-E-SARAJ	1	21-Jan-17	21-Jan-17	
	KUNDUZ	DASHT-E-ARCHI	1	21-Feb-17	21-Feb-17	
2017 Total			14	13-Jan-17	28-Dec-17	

Table 10: Wild Polio cases by district and date of onset of paralysis, Pakistan 2017-2018						
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case	
2018	FATA	KHYBER	1	25-Sep-18	25-Sep-18	
		KHIGADAP	1	22-Sep-18	22-Sep-18	
	KHYBER PAKHTOON	CHARSADA	1	1-Aug-18	1-Aug-18	
	BALUCHISTAN	DUKKI	3	8-Mar-18	18-May-18	
2018 Total			6	8-Mar-18	25-Sep-18	
2017	BALUCHISTAN	ZHOB	1	15-Nov-17	15-Nov-17	
		KABDULAH	2	11-Jun-17	13-Nov-17	
	SINDH	KHIGADAP	1	9-Nov-17	9-Nov-17	
		KHIGIQBAL	1	11-Aug-17	11-Aug-17	
	KHYBER PAKHTOON	LAKKIMRWT	1	21-Aug-17	21-Aug-17	
	GILGIT BALTISTAN	DIAMER	1	13-Feb-17	13-Feb-17	
PUNJAB	LODHRAN	1	28-Jan-17	28-Jan-17		
2017 Total			8	28-Jan-17	15-Nov-17	

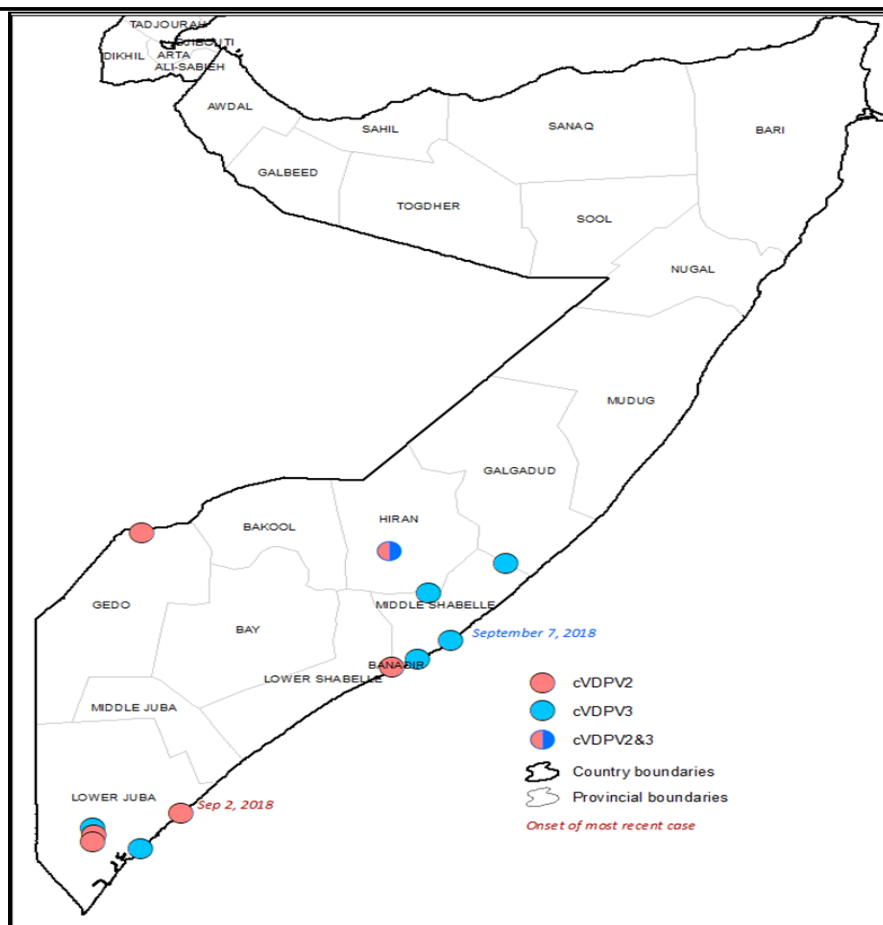


**Table 11: Circulating VDPV cases and date of onset of paralysis in EMR countries by districts 2017-2018**

Year	COUNTRY	PROVINCE	DISTRICT	cVDPV2			cVDPV3		
				Count	First Case	Last Case	Count	First Case	Last Case
2017	SYR	HOMS	TADMOUR	1	10-Jul-17	10-Jul-17			
		DEIR_AL_ZOUR	DEIR ALZOUR	1	30-Jun-17	30-Jun-17			
		DEIR_AL_ZOUR	BOKAMAL	12	25-Jun-17	21-Sep-17			
		DEIR_AL_ZOUR	MAYADEEN	58	5-Mar-17	9-Sep-17			
		RAQUA	THAWRA	1	16-Jun-17	16-Jun-17			
		RAQUA	TALABYAD	1	25-Apr-17	25-Apr-17			
<b>SYR Total</b>				<b>74</b>	<b>5-Mar-17</b>	<b>21-Sep-17</b>			
<b>2017 Total</b>				<b>74</b>	<b>5-Mar-17</b>	<b>21-Sep-17</b>			
2018	SOM	LOWER JUBA	Jamaame West	1	02-Sep-18	02-Sep-18			
			KISMAYO	2	29-Jul-18	30-Jul-18	2	24-Jul-18	27-Jul-18
		MIDDLE SHABELLE	RUNINGOD				1	07-Sep-18	07-Sep-18
			MAHADAY				1	29-Jun-18	29-Jun-18
		WARSHAIKH				2	16-May-18	23-May-18	
		BANADIR	DANYILE	1	10-Jul-18	10-Jul-18			
HIRAN	BULO BURTI	1	11-May-18	11-May-18					
GEDO	DOLO	1	26-May-18	26-May-18					
<b>SOM Total</b>				<b>6</b>	<b>11-May-18</b>	<b>2-Sep-18</b>	<b>7</b>	<b>11-May-18</b>	<b>7-Sep-18</b>
<b>2018 Total</b>				<b>6</b>	<b>11-May-18</b>	<b>2-Sep-18</b>	<b>7</b>	<b>11-May-18</b>	<b>7-Sep-18</b>

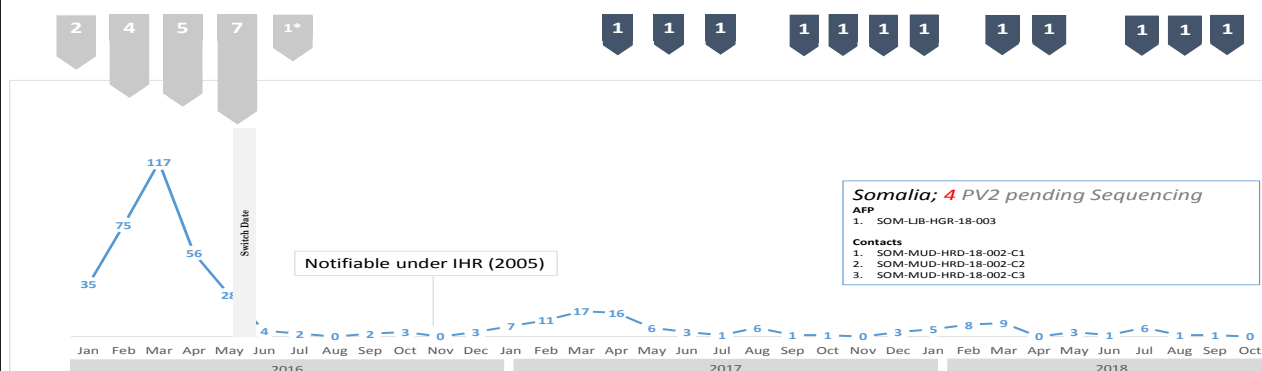
Somalia in 2018 so far has a total of 12 cVDPV cases (5 cVDPV2, 6 cVDPV3 & 1 coinfection cVDPV2/cVDPV3)

**Figure 6: Somalia cVDPV cases by type and district 01/01/2018 - 28/10/2018**



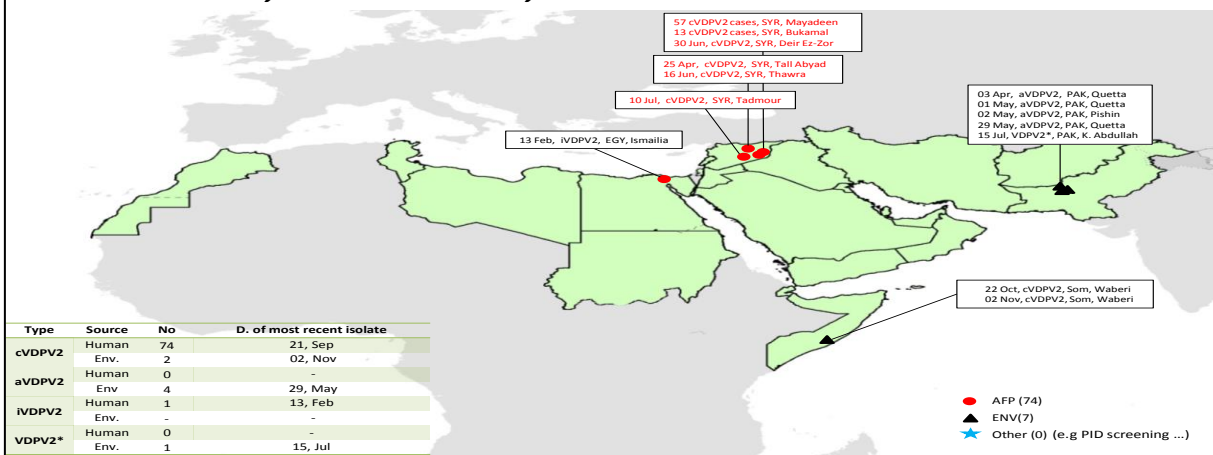


### Sabin Like Type-2 Poliovirus Isolates (H & E) EMR, 2016-17-18



\* Focused TOPV campaign in El Tur district (S. Sanaï/Egy) as a response to VDPV2 isolation

### VDPV2 isolates, EMR countries, 2017



### VDPV2 isolates, EMR countries, 2018

