

## **Highlights of Polio Fax Bulletin No. 1056 for Week 52 2018**

### **I. Poliovirus Transmission**

1. Endemic countries (PAKISTAN & AFGHANISTAN):
  - a. Human samples: No new wild poliovirus (WPV) cases reported this week. Total WPV type-1 cases for 2018 remains to date 29 cases (21 from Afghanistan and 8 from Pakistan).
    - i. Afghanistan: The total number of WPV1 cases in Afghanistan in 2018 to date remains 21 from six provinces (Hilmand-4 cases, Kandhar-9 cases, Kunar-3 cases, Nangarhar-2 cases, Uruzgan-2 cases and Nuristan-1 case). The most recent reported case has date of onset of paralysis on 6 November 2018.
    - ii. Pakistan: The total number of WPV1 cases in Pakistan in 2018 to date remains to be 8 from five infected districts in four provinces (Balochistan-3 cases, Khyber Pakhtunkhwa (KP)-1 case and Khyber Pakhtunkhwa Tribal District (KPTD)-3 cases and Sindh-1 case). Date of onset of paralysis of the most recent case is 7 October 2018.
  - b. Environmental samples: Six new positive environmental samples for WPV1 were reported this week, which include four from Afghanistan and two from Pakistan.
    - i. Afghanistan: Four new positive environmental samples reported this week, all the four are from Kandahar district, Khandahar province. The total positive environmental samples from Afghanistan in 2018 to date are 74 with most recent positive sample collected on 6 December 2018.
    - ii. Pakistan: Two new positive environmental samples reported this week from two newly infected districts; these include one from Pishin, from Balochistan province and one from Wazir-South district from Khyber Pakhtunkhwa Tribal District (KPTD). The total positive environmental samples from Pakistan in 2018 to date are 123 with most recent positive sample collected on 2 December 2018.

### **II. Outbreak response countries**

1. SOMALIA: no new cVDPV type-2 or type-3 isolates from human or environmental samples this week.
  - a. In 2018 to date, Somalia has reported a total of 12 cases due to circulating vaccine derived polioviruses (cVDPVs), which include 5 due to cVDPV2, 6 due to cVDPV3 and 1 due to co-infection of cVDPV2 and cVDPV3.
  - b. cVDPV2:
    - i. The date of onset of the most recent cVDPV2 case is 2 September 2018.
    - ii. In 2018 so far, cVDPV2 has been isolated from 19 sewage samples in Mogadishu and date of specimen collection of recent most positive sample is 11 October 2018. One of the 19 samples has co-infection of cVDPV2 and cVDPV3.

- c. cVDPV3:
  - i. The date of onset of the most recent cVDPV3 case is 7 September, 2018.
  - ii. In 2018 so far, cVDPV3 isolated from 12 sewage samples in Mogadishu and date of specimen collection of recent most positive sample is 23 August 2018. One of the above 12 samples has co-infection of 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.
  - a. Djibouti is missing both indicators. Djibouti, did not report any AFP case since April 2017.
  - b. Morocco has a percentage of AFP cases with adequate stool specimens of 72.7%
  - c. Oman has a percentage of AFP cases with adequate stool specimens of 75%
2. Yemen has the highest number of 2017 AFP cases, which are not yet finally classified (72). Also Somalia has one pending case from 2017.

## World Health Organization – Regional Office for Eastern Mediterranean

## AFP SURVEILLANCE

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

Country	Reported AFP cases by week of onset - Week (52/18) / Ending on : 30/12/2018														
	Total AFP 2016	Total AFP 2017	Total AFP to date, 2018	W41 14 Oct 18	W42 21 Oct 18	W43 28 Oct 18	W44 04 Nov 18	W45 11 Nov 18	W46 18 Nov 18	W47 25 Nov 18	W48 02 Dec 18	W49 09 Dec 18	W50 16 Dec 18	W51 23 Dec 18	W52 30 Dec 18
Afghanistan	2905	3094	3300	50	63	66	76	79	61	50	64	69	49	24	7
Bahrain	14	18	34	0	2	1	1	2	0	2	1	0	1	0	0
Djibouti	3	4	0	0	0	0	0	0	0	0	0	0			
Egypt	1092	1242	1227	33	18	26	16	22	22	26	16	21	19	17	1
Iran	776	820	851	17	5	13	16	16	18	15	24	21	11	4	
Iraq	605	699	982	19	18	14	30	18	24	27	22	34	22	8	
Jordan ****	107	116	114	3	1	0	1	0	0	0	0	3	1	3	
Kuwait	50	69	74	1	2	3	1	2	3	2	4	2	1	4	0
Lebanon ****	111	75	87	2	1	1	1	2	2	0	5	2	1	0	
Libya	70	88	117	1	2	2	0	0	1	1	2	4	0	1	
Morocco	84	143	205	4	8	5	4	3	7	4	2	7	3	3	
Oman	39	40	28	1	1	0	1	0	0	0	1	0	0	1	0
Pakistan	7848	10320	11351	274	239	233	243	283	246	242	261	231	66	0	
Palestine ****	46	43	43	1	1	0	0	1	0	0	1	0	1	0	0
Qatar	9	18	9	0	0	0	0	0	0	0	0	0			
Saudi Arabia	273	276	221	2	7	6	7	13	10	9	6	3	1	0	
Somalia	316	345	340	4	6	7	4	8	6	4	3	5	2	4	0
Sudan	509	570	564	7	10	11	11	13	10	9	6	8	7	3	0
Syria ****	303	362	341	12	6	5	8	6	8	4	8	5	6	4	
Tunisia	90	67	64	0	0	1	1	1	0	0	0	0	0		
U.A.E	42	58	39	1	0	0	1	1	0	0	1	1	0	0	0
Yemen	715	713	705	13	21	24	21	18	13	12	18	14	10	11	
<b>Total EMR</b>	<b>16007</b>	<b>19180</b>	<b>20696</b>	<b>445</b>	<b>411</b>	<b>418</b>	<b>443</b>	<b>488</b>	<b>431</b>	<b>407</b>	<b>445</b>	<b>430</b>	<b>201</b>	<b>87</b>	<b>8</b>

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2016	Total year 2017	30/12		Confirmed polio cases by month of onset											
			2017	2018	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018	December 2018
Afghanistan	13	14	14	21	3	3	1	1	0	2	3	2	3	2	1	
Bahrain	0	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	0	
Egypt	0	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	0	
Iraq	0	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	0	
Kuwait	0	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	0	
Libya	0	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	0	
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pakistan	20	8	8	8	0	0	1	1	1	0	0	1	3	1		
Palestine ****	0	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	0	
Saudi Arabia	0	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	0	
Sudan	0	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	0	
Tunisia	0	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	0	
Yemen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total EMR</b>	<b>33</b>	<b>22</b>	<b>22</b>	<b>29</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>6</b>	<b>3</b>	<b>1</b>	<b>0</b>

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

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Table 3: Investigation of AFP cases with paralysis onset in 2017 &amp; 2018 up to Week (52/18) / Ending on : 30/12/2018)

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
		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	93.6	14	0	3300	21	0	281	2998	0	16.2	26	2	94.1	21	0	30-12-2018
Bahrain	18	0	0	0	18	0	6.2	0	0	100.0	0	0	34	0	0	11	23	0	11.8	1	0	97.1	0	0	30-12-2018
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	09-12-2018
Egypt	1242	0	0	0	1240	2	3.3	0	0	94.4	0	0	1227	0	0	85	1141	1	3.2	8	0	91.0	0	0	27-12-2018
Iran	820	0	0	0	820	0	4.3	0	0	96.7	0	0	851	0	0	20	830	1	4.4	0	0	97.2	0	0	29-12-2018
Iraq	699	0	0	0	699	0	4.7	0	0	86.7	0	0	982	0	0	99	883	0	6.4	10	0	90.2	0	0	29-12-2018
Jordan	116	0	0	0	116	0	4.2	0	0	100.0	0	0	114	0	0	4	110	0	4.1	0	0	100.0	0	0	27-12-2018
Kuwait	69	0	0	0	69	0	7.5	0	0	92.8	0	0	74	0	0	7	67	0	8.4	0	0	86.5	0	0	30-12-2018
Lebanon	75	0	0	0	75	0	4.0	0	0	80.0	0	0	87	0	0	7	80	0	4.7	1	0	96.6	0	0	28-12-2018
Libya	88	0	0	0	88	0	4.3	0	0	96.6	0	0	117	0	0	7	110	0	4.7	0	0	96.6	0	0	28-12-2018
Morocco	143	0	0	0	143	0	1.3	0	0	67.1	0	0	205	0	0	82	123	0	2.3	43	3	72.7	0	0	28-12-2018
Oman	40	0	0	0	40	0	4.5	0	0	90.0	0	0	28	0	0	1	27	0	3.2	0	0	75.0	0	0	30-12-2018
Pakistan	10330	8	2	0	10310	0	13.2	0	0	85.6	8	0	11351	8	1	556	10786	0	14.6	135	0	88.2	8	0	29-12-2018
Palestine	43	0	0	0	43	0	2.3	0	0	97.7	0	0	43	0	0	6	37	0	2.3	1	0	93.0	0	0	30-12-2018
Qatar	18	0	0	0	18	0	6.1	0	0	100.0	0	0	9	0	0	0	9	0	2.5	0	0	100.0	0	0	02-12-2018
Saudi Arabia	276	0	0	0	276	0	3.5	0	0	98.9	0	0	221	0	0	65	156	0	2.7	0	0	95.5	0	0	27-12-2018
Somalia	345	0	0	1	344	0	6.0	1	1	99.1	0	0	340	0	0	20	308	12	5.4	1	1	98.2	0	0	30-12-2018
Sudan	570	0	0	0	570	0	3.2	0	0	96.3	0	0	564	0	0	12	552	0	3.1	1	0	97.5	0	0	30-12-2018
Syria	362	0	1	0	287	74	4.7	0	0	80.9	0	0	341	0	0	27	314	0	4.4	1	0	88.3	0	0	29-12-2018
Tunisia	67	0	0	0	67	0	2.5	0	0	74.6	0	0	64	0	0	4	60	0	2.4	0	0	81.3	0	0	22-12-2018
U.A.E	58	0	0	0	58	0	5.7	0	0	98.3	0	0	39	0	0	2	37	0	3.1	0	0	97.4	0	0	30-12-2018
Yemen	713	0	0	72	641	0	5.2	72	58	90.2	0	0	705	0	0	617	88	0	5.0	427	397	92.2	0	0	29-12-2018
EMR	19190	22	3	73	19006	76	7.7	73	59	88.9	22	0	20696	29	1	1913	18739	14	8.3	655	403	90.4	29	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 &lt;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

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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	1429	1	0	88	347	0	998	4	0	52	214	34
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	491	0	0	11	54	39
IRN	143	0	0	5	1	0	140	0	0	3	5	0
IRQ	698	0	0	18	101	16	792	0	0	21	84	66
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	218	0	0	3	15	26
LIB	4	0	0	0	0	1	1	0	0	0	0	0
MOR	87	0	0	0	7	0	136	0	0	0	9	13
OMA	115	0	0	1	24	1	71	0	0	2	16	0
PAK	3758	2	0	234	899	0	3998	3	0	179	852	75
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	1016	0	10	49	115	61
SUD	385	0	0	6	32	46	344	0	0	2	24	82
SYR	570	0	63	3	11	0	644	0		8	13	45
TUN	26	0	0	0	0	0	15	0	0	0	0	1
UAE	2	0	0	0	0	0	0	0	0	0	0	0
YEM	1737	0	0	43	114	666	1514	0	0	0	0	1514
<b>EMR</b>	<b>10543</b>	<b>3</b>	<b>63</b>	<b>446</b>	<b>1715</b>	<b>774</b>	<b>10385</b>	<b>7</b>	<b>10</b>	<b>330</b>	<b>1401</b>	<b>1961</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	3	12-10-18
<b>2018 Total</b>		<b>7</b>	<b>12-10-18</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	17-07-18	17-07-18
		URUZGAN	SHAHID-E-HASSA	1	08-07-18	08-07-18
	PAK	FATA	BAJOUR	1	01-09-18	01-09-18
		BALUCHISTAN	DUKKI	1	15-04-18	15-04-18
<b>2018 Total</b>				<b>4</b>	<b>15-04-18</b>	<b>01-09-18</b>
2017	AFG	HILMAND	NAWZAD	1	16-04-17	16-04-17
	<b>2017 Total</b>				<b>1</b>	<b>16-04-17</b>

**Table 5: Laboratory investigation of AFP cases with paralysis onset in 2018 up to Week (52/18) / Ending on : (30/12/2018)**

Country	Polio laboratories  (ITD / Nucleotide Sequencing (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+/NPEV			received < / = 14 days	received > 14 days ago	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin									
Afghanistan	RRL Pakistan	3250	220	23	604	2289	108	6	19	166					150					17%	91%	100%	98%	29/12/2018	
Bahrain	NPL Oman / CDC	31			1	30														3%	100%		52%	24/12/2018	
Djibouti	NPL Kenya / CDC																							09/12/2018	
Egypt***	RRL Egypt	1196	33	6	155	959	39	4		16	1				18				12%	95%	100%	99%	27/12/2018		
Iran	NPL Iran / CDC	797	17		22	734		24		11	1				8			1	2%	100%	100%	99%	29/12/2018		
Iraq	RRL Egypt	988	18		117	792	39	22		11					12				12%	100%	100%	76%	27/12/2018		
Jordan	NPL Jordan / RRL EGYPT	114	4		8	99	3			3					4				9%	100%	100%	100%	27/12/2018		
Kuwait	RRL Kuwait / RIVM	71	2		4	59	3	3										2	6%	95%		97%	25/12/2018		
Lebanon	NPL Jordan / RRL EGYPT	92	2		7	80	2	1		2					2				8%	100%	100%	67%	27/12/2018		
Libya	RRL Tunisia / RIVM	115	1		11	101	2								1				9%	100%	100%	97%	27/12/2018		
Morocco	NPL Morocco / RRL Tunisia	177	2		4	159	3	9							2				3%	92%	0%	94%	21/12/2018		
Oman	NPL Oman / CDC	27			6	21													23%	93%		100%	24/12/2018		
Pakistan	RRL Pakistan	11047	461	54	2324	7955	152	97	6	300					354			1	18%	92%	99%	97%	29/12/2018		
Palestine & UNRWA		43			6	37													14%	56%		100%	30/12/2018		
Qatar	NPL Oman / CDC	9			1	8													11%	88%		100%	24/12/2018		
Saudi Arabia	NPL Saudi Arabia / CDC	242	2		8	214	17	1							2				2%	94%	100%	100%	30/12/2018		
Somalia	NPL Kenya / CDC	340	38	2	32	250	5	13		16			5	6 #	15	7 #		3	11%	14%		100%	30/12/2018		
Sudan	NPL Sudan / RRL Egypt	568	7		52	501	8			5					2			2	10%	96%	100%	86%	30/12/2018		
Syria	NPL Syria / RRL Egypt	344	6		11	305	15	7		3					4				4%	100%	100%	67%	30/12/2018		
Tunisia	RRL Tunisia	69			2	66	1												2%	99%		97%	27/12/2018		
U.A.E	NPL Oman / CDC	38			4	34													9%	89%		84%	24/12/2018		
Yemen	NPL Kenya / CDC																							29/12/2018	
<b>Total EMR 2018</b>		19558	813	85	3379	14693	397	187	25	533	2		5	6	574	7	2	21	1	5	15%	92%	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)

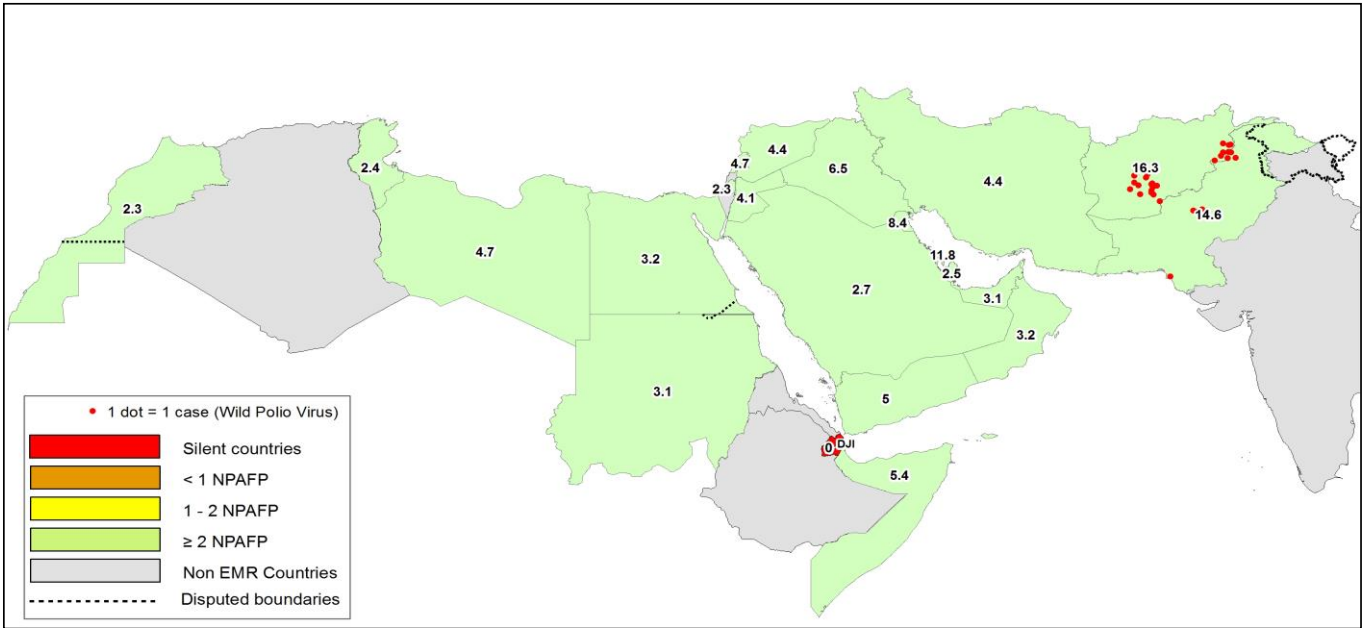
Table 6: Environmental isolate by year and type

Country	Status	2015	2016	2017	2018
AFG	NEGATIVE	129	183	274	236
	PENDING				8
	WILD		20	2	42
<b>AFG Total</b>		<b>149</b>	<b>185</b>	<b>316</b>	<b>318</b>
EGY	NEGATIVE	495	528	522	512
	PENDING				24
	VDPV2		3	1	
<b>EGY Total</b>		<b>498</b>	<b>529</b>	<b>522</b>	<b>536</b>
IRN	NEGATIVE			6	50
	PENDING				2
<b>IRN Total</b>				<b>6</b>	<b>52</b>
JOR	NEGATIVE		2	32	18
	PENDING				18
<b>JOR Total</b>			<b>2</b>	<b>32</b>	<b>36</b>
LEB	NEGATIVE		4	27	10
	PENDING				31
<b>LEB Total</b>			<b>4</b>	<b>27</b>	<b>41</b>
PAK	NEGATIVE	347	462	523	506
	PENDING				38
	WILD	79	59	105	123
	WILD & VDPV2	5	3	1	
	VDPV2	8	5	4	
<b>PAK Total</b>		<b>439</b>	<b>529</b>	<b>633</b>	<b>667</b>
SOM	NEGATIVE			34	177
	PENDING				4
	VDPV2				2
	VDPV3				12
<b>SOM Total</b>			<b>36</b>	<b>213</b>	
SYR	NEGATIVE			4	85
	PENDING				15
<b>SYR Total</b>			<b>4</b>	<b>100</b>	
<b>Grand Total</b>		<b>1086</b>	<b>1249</b>	<b>1576</b>	<b>1963</b>

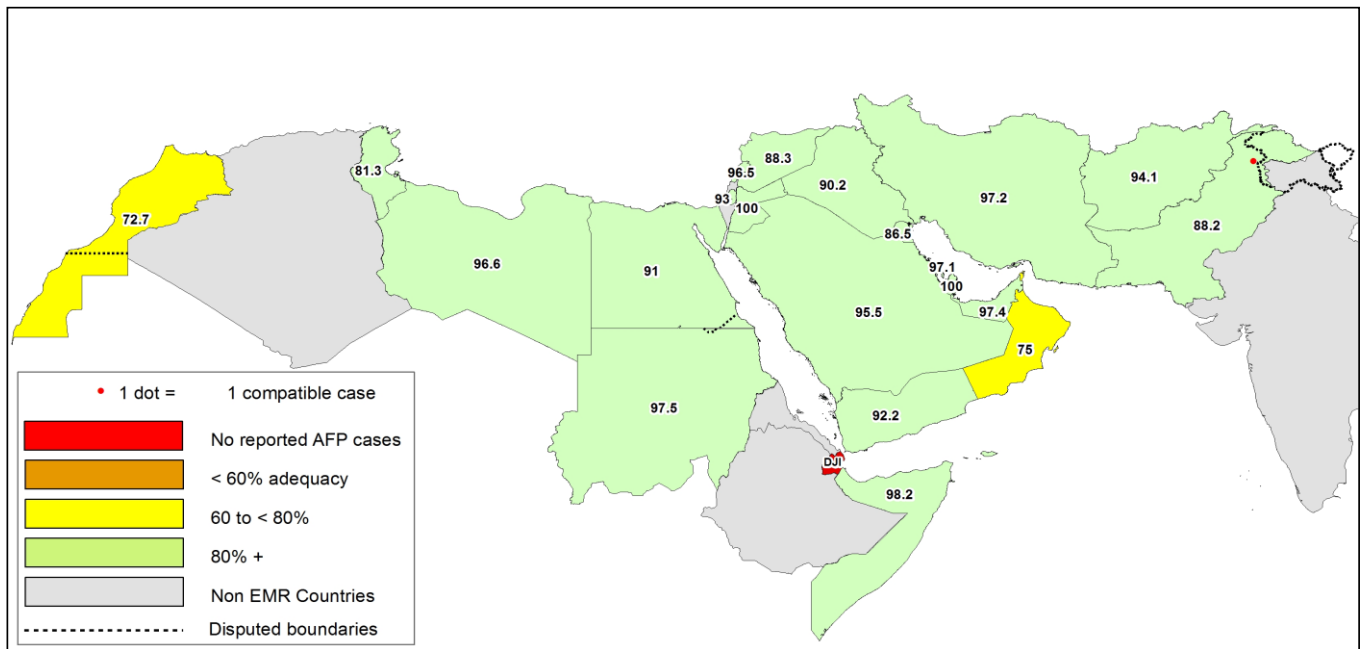
Table 7: Environmental Wild/VDPV isolate by site

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			
				KUNAR	1	25-Dec	25-Dec			
			NANGARHAR	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	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					
BALOCHISTAN		1	15-Jul	15-Jul						
BALOCHISTAN		1	2-May	2-May						
WILD & VDPV2	BALOCHISTAN	1	2-May	2-May						
	BALOCHISTAN	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	8	8-Jan	25-Nov			
				HIRAT	1	25-Jun	25-Jun			
				KABUL	3	26-Feb	26-Jun			
				KANDAHAR	39	8-Jan	6-Dec			
				KHOST	1	25-Sep	25-Sep			
			KUNAR	ASADABAD	2	24-Apr	25-Sep			
				BEHSUD	3	28-Jan	25-Oct			
				JALALABAD	17	27-Jan	25-Nov			
				<b>AFG Total</b>	<b>74</b>	<b>8-Jan</b>	<b>6-Dec</b>			
				PAK	WILD	BALOCHISTAN	KABDULLAH	1	1-Dec	1-Dec
	LORALAI	2	17-Mar				17-Aug			
	PISHIN	1	2-Dec				2-Dec			
	QUETTA	11	13-Feb				28-Nov			
	KABDULAH	6	1-Jan				15-Nov			
	ISLAMABAD	7	10-Jan				10-Nov			
	KHYBER PAKHTUNKHWA	BANNU	1				27-Nov	27-Nov		
		LAHORE	9				11-Jun	12-Nov		
		RAWALPINDI	13				10-Jan	10-Nov		
	SINDH	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	13			15-Feb	13-Nov			
		KHILANDHI	3			10-Jan	30-Jul			
		KHISITE	2			1-Jan	3-Sep			
		SUKKUR	2			8-Feb	9-Nov			
		KHILIAQAT	2			7-Mar	7-Nov			
	FATA	KHISADDAR	1			10-Sep	10-Sep			
		KHIMALIR	1			13-Sep	13-Sep			
		BAJOUR	5			19-May	25-Oct			
	KHYBER PAKHTUNKHWA	WAZIR-S	1			26-Nov	26-Nov			
		BANNU	2	31-Mar	26-Oct					
KOHAT		5	5-Jan	27-Sep						
MARDAN		2	15-Oct	15-Nov						
NOWSHERA		2	18-Sep	18-Oct						
PESHAWAR		20	10-Jan	24-Nov						
<b>PAK Total</b>		<b>123</b>	<b>1-Jan</b>	<b>2-Dec</b>						
SOM	VDPV2	BANADIR	HAMAR WEYN	11	4-Jan	20-Sep				
			HODAN	2	22-Feb	4-Oct				
			WABERI	7	1-Mar	11-Oct				
			HAMAR WEYN	6	11-Feb	5-Apr				
			HODAN	1	1-Feb	1-Feb				
			WABERI	5	8-Mar	23-Aug				
<b>SOM Total</b>	<b>32</b>	<b>4-Jan</b>	<b>11-Oct</b>							
<b>2018 Total</b>				<b>229</b>	<b>1-Jan</b>	<b>6-Dec</b>				

**Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2018 - 30/12/2018**



**Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2018 - 30/12/2018**



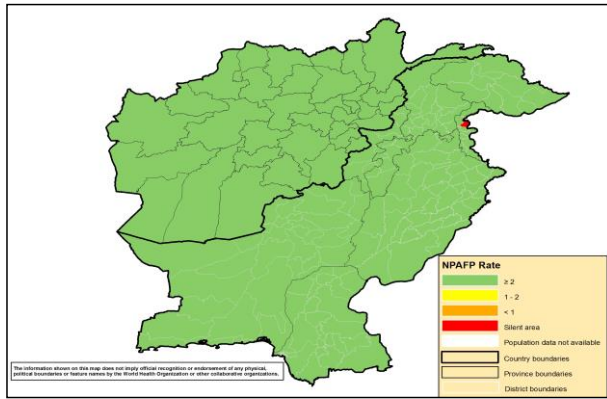
**Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2017 - 2018**

Year	COUNTRY	Count	First Case	Last Case
2018	AFG	21	1-Jan-18	6-Nov-18
	PAK	8	8-Mar-18	7-Oct-18
2018 Total		29	1-Jan-18	6-Nov-18
2017	AFG	14	13-Jan-17	28-Dec-17
	PAK	8	28-Jan-17	15-Nov-17
2017 Total		22	13-Jan-17	28-Dec-17

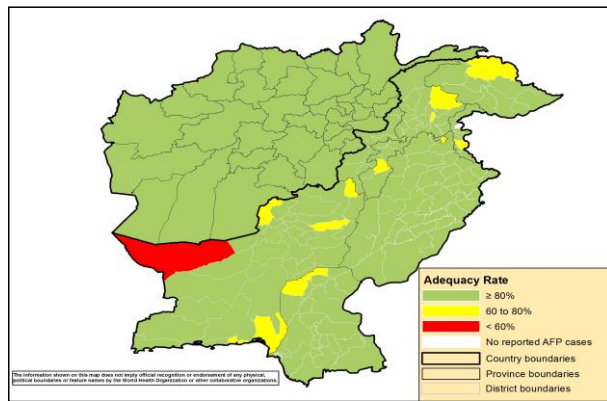
Last reported wild Polio P3 from Pakistan with date of onset 18/04/2012



**Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2018 - 30/12/2018**

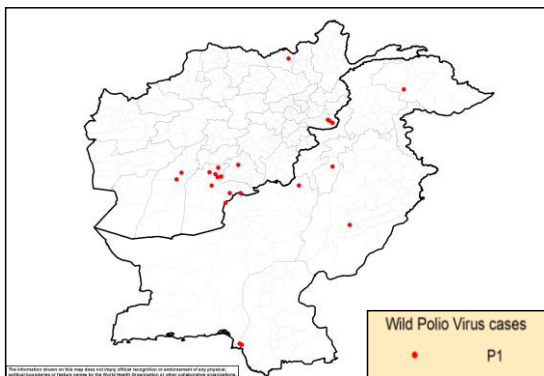


**Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2018 - 30/12/2018**

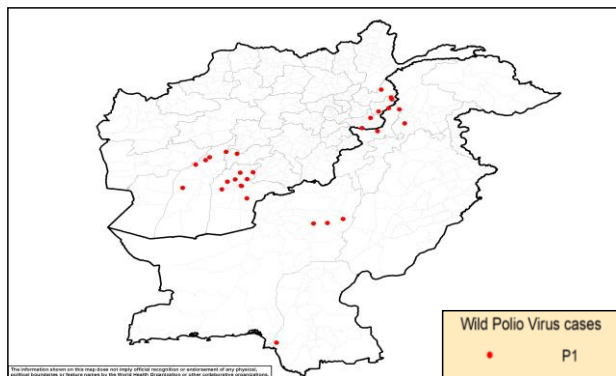


**Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan**

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



**5b: 01/01/2018 - 30/12/2018**



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**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	3	1-Sep-18	6-Nov-18
		NAD-E-ALI	1	1-Jun-18	1-Jun-18
	URUZGAN	SHAHID-E-HASSAS	2	8-Jul-18	9-Oct-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
	KUNAR	CHAWKAY	1	22-Jun-18	22-Jun-18
		GHAZIABAD	2	14-Feb-18	3-Mar-18
2018 Total			21	1-Jan-18	6-Nov-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	BAJOUR	2	1-Sep-18	7-Oct-18
		KHYBER	1	25-Sep-18	25-Sep-18
	SINDH	KHIGADAP	1	22-Sep-18	22-Sep-18
	KHYBER PAKHTOONKHWA	CHARSADA	1	1-Aug-18	1-Aug-18
	BALUCHISTAN	DUKKI	3	8-Mar-18	18-May-18
2018 Total			8	8-Mar-18	7-Oct-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 PAKHTOONKHWA	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

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**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			
		SYR Total			74	5-Mar-17	21-Sep-17		
<b>2017 Total</b>				<b>74</b>	<b>5-Mar-17</b>	<b>21-Sep-17</b>			
2018	SOM	LOWER JUBA	Jamaame West KISMAYO	1	02-Sep-18	02-Sep-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
			WARSHEIKH				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	1	11-May-18	11-May-18
		GEDO	DOLO	1	26-May-18	26-May-18			
SOM Total			6	11-May-18	2-Sep-18	7	11-May-18	7-Sep-18	
<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 - 30/12/2018**

