

## **Highlights of Polio Fax Bulletin No. 1055 for Week 51 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: No new positive environmental samples for WPV1 were reported this week.
    - i. Afghanistan: The total positive environmental samples from Afghanistan in 2018 remains to date to be 70 with most recent positive sample collected on 25 November 2018.
    - ii. Pakistan: The total positive environmental samples from Pakistan in 2018 remains to date to be 121 with most recent positive sample collected on 1 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 72.5%
  - c. Oman has a percentage of AFP cases with adequate stool specimens of 74.1%
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 (51/18) / Ending on : 23/12/2018														
	Total AFP 2016	Total AFP 2017	Total AFP to date, 2018	W40 07 Oct 18	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
Afghanistan	2905	3094	3245	86	50	62	66	76	78	60	48	57	65	36	5
Bahrain	14	18	34	0	0	2	1	1	2	0	2	1	0	1	0
Djibouti	3	4	0	0	0	0	0	0	0	0	0	0	0		
Egypt	1092	1242	1203	28	33	18	26	16	22	22	26	16	20	14	
Iran	776	820	825	23	17	5	13	17	16	18	15	22	9	2	0
Iraq	605	699	958	17	19	18	14	30	18	24	27	21	31	10	
Jordan ****	107	116	111	1	3	1	0	1	0	0	0	0	3	1	0
Kuwait	50	69	69	2	1	2	3	1	2	3	2	2	2	1	1
Lebanon ****	111	75	86	0	2	1	1	1	2	2	0	5	2		
Libya	70	88	115	1	1	2	2	0	0	1	1	2	3	0	
Morocco	84	143	200	5	4	8	5	4	3	6	4	2	6	2	1
Oman	39	40	27	1	1	1	0	1	0	0	0	1	0	0	
Pakistan	7848	10319	11244	205	274	239	230	243	282	239	238	249	190	23	0
Palestine ****	46	43	43	1	1	1	0	0	1	0	0	1	0	1	0
Qatar	9	18	9	0	0	0	0	0	0	0	0	0	0		
Saudi Arabia	273	276	221	3	2	7	6	7	13	10	9	6	3	1	0
Somalia	316	345	335	10	4	6	7	4	7	6	4	3	5	2	0
Sudan	509	570	553	12	7	10	11	11	13	10	9	6	7	0	0
Syria ****	303	362	334	7	12	6	5	8	6	7	4	7	5	5	
Tunisia	90	67	64	3	0	0	1	1	1	0	0	0	0	0	
U.A.E	42	58	39	1	1	0	0	1	1	0	0	1	1	0	
Yemen	715	713	687	15	13	21	24	21	18	13	12	18	12	5	
<b>Total EMR</b>	<b>16007</b>	<b>19179</b>	<b>20402</b>	<b>421</b>	<b>445</b>	<b>410</b>	<b>415</b>	<b>444</b>	<b>485</b>	<b>421</b>	<b>401</b>	<b>420</b>	<b>364</b>	<b>104</b>	<b>7</b>

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2016	Total year 2017	23/12		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	13	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>21</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 (51/18) / Ending on : 23/12/2018)

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	93.5	14	0	3245	21	0	279	2945	0	16.3	26	2	94.1	21	0	23-12-2018
Bahrain	18	0	0	0	18	0	6.2	0	0	100.0	0	0	34	0	0	12	22	0	12.0	2	0	97.1	0	0	23-12-2018
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	1203	0	0	83	1119	1	3.2	8	0	91.9	0	0	20-12-2018
Iran	820	0	0	0	820	0	4.3	0	0	96.7	0	0	825	0	0	11	813	1	4.3	0	0	97.0	0	0	23-12-2018
Iraq	699	0	0	0	699	0	4.7	0	0	86.7	0	0	958	0	0	76	882	0	6.4	9	0	90.2	0	0	22-12-2018
Jordan	116	0	0	0	116	0	4.2	0	0	100.0	0	0	111	0	0	2	109	0	4.0	0	0	100.0	0	0	23-12-2018
Kuwait	69	0	0	0	69	0	7.5	0	0	92.8	0	0	69	0	0	8	61	0	8.0	0	0	88.4	0	0	23-12-2018
Lebanon	75	0	0	0	75	0	4.0	0	0	80.0	0	0	86	0	0	11	75	0	4.7	1	0	96.5	0	0	14-12-2018
Libya	88	0	0	0	88	0	4.3	0	0	96.6	0	0	115	0	0	5	110	0	4.7	0	0	96.5	0	0	22-12-2018
Morocco	143	0	0	0	143	0	1.3	0	0	67.1	0	0	200	0	0	77	123	0	2.3	37	2	72.5	0	0	21-12-2018
Oman	40	0	0	0	40	0	4.5	0	0	90.0	0	0	27	0	0	1	26	0	3.2	0	0	74.1	0	0	18-12-2018
Pakistan	10330	8	2	0	10309	0	13.2	0	0	85.6	8	0	11244	8	1	721	10514	0	14.7	168	0	88.3	8	0	23-12-2018
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	23-12-2018
Qatar	18	0	0	0	18	0	6.1	0	0	100.0	0	0	9	0	0	0	9	0	2.6	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	68	153	0	2.8	1	0	95.5	0	0	23-12-2018
Somalia	345	0	0	1	344	0	6.0	1	1	99.1	0	0	335	0	0	16	307	12	5.4	1	1	98.2	0	0	23-12-2018
Sudan	570	0	0	0	570	0	3.2	0	0	96.3	0	0	553	0	0	20	533	0	3.1	1	0	97.3	0	0	23-12-2018
Syria	362	0	1	0	287	74	4.7	0	0	80.9	0	0	334	0	0	20	314	0	4.4	0	0	88.9	0	0	22-12-2018
Tunisia	67	0	0	0	67	0	2.5	0	0	74.6	0	0	64	0	0	4	60	0	2.5	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	3.2	0	0	97.4	0	0	20-12-2018
Yemen	713	0	0	72	641	0	5.2	72	58	90.2	0	0	687	0	0	599	88	0	5.0	417	387	92.1	0	0	22-12-2018
EMR	19190	22	3	73	19005	76	7.7	73	59	88.9	22	0	20402	29	1	2021	18337	14	8.3	672	392	90.5	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	964	4	0	52	211	15
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	476	0	0	11	53	33
IRN	143	0	0	5	1	0	140	0	0	3	5	0
IRQ	698	0	0	18	101	16	785	0	0	21	84	111
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	215	0	0	3	15	27
LIB	4	0	0	0	0	1	1	0	0	0	0	0
MOR	87	0	0	0	7	0	129	0	0	0	9	6
OMA	115	0	0	1	24	1	71	0	0	2	15	3
PAK	3758	2	0	234	899	0	3974	3	0	176	839	113
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	998	0	10	49	115	43
SUD	385	0	0	6	32	46	332	0	0	2	24	98
SYR	570	0	63	3	11	0	632	0		7	13	33
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	1467	0	0	0	0	1467
<b>EMR</b>	<b>10543</b>	<b>3</b>	<b>63</b>	<b>446</b>	<b>1715</b>	<b>774</b>	<b>10206</b>	<b>7</b>	<b>10</b>	<b>326</b>	<b>1383</b>	<b>1955</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>

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**Table 5: Laboratory investigation of AFP cases with paralysis onset in 2018 up to Week (51/18) / Ending on : (23/12/2018)**

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										VDPV		
Afghanistan	RRL Pakistan	3199	219	23	593	2244	112	8	19	165						149						17%	91%	100%	98%	22/12/2018		
Bahrain	NPL Oman / CDC	31			1	30																3%	100%		52%	24/12/2018		
Djibouti	NPL Kenya / CDC																								09/12/2018			
Egypt***	RRL Egypt	1164	33	6	155	944	23	3		16	1					18					12%	95%	100%	99%	20/12/2018			
Iran	NPL Iran / CDC	797	17		22	752		5		11	1					8					1	8	1	2%	100%	100%	99%	15/12/2018
Iraq	RRL Egypt	963	17		109	778	41	18		11						12						12%	100%	100%	76%	20/12/2018		
Jordan	NPL Jordan / RRL EGYPT	111	4		8	98	1			3						4						9%	100%	100%	100%	20/12/2018		
Kuwait	RRL Kuwait / RIVM	70	2		4	55	3	6												2		7%	97%		98%	20/12/2018		
Lebanon	NPL Jordan / RRL EGYPT	90	2		7	73	7	1		2						2						9%	100%	100%	50%	20/12/2018		
Libya	RRL Tunisia / RIVM	113	1		11	97	3	1								1						9%	100%	100%	97%	14/12/2018		
Morocco	NPL Morocco / RRL Tunisia	177	2		4	159	11	1								2						3%	92%	0%	94%	21/12/2018		
Oman	NPL Oman / CDC	27			6	21																23%	93%		100%	24/12/2018		
Pakistan	RRL Pakistan	11042	456	53	2296	7784	443	9	6	297						351					1	11	18%	92%	99%	97%	22/12/2018	
Palestine & UNRWA		43			6	33	1	3														15%	59%		100%	23/12/2018		
Qatar	NPL Oman / CDC	9			1	8																11%	88%		100%	24/12/2018		
Saudi Arabia	NPL Saudi Arabia / CDC	229	2		8	211	6	2								2						2%	94%	50%	100%	23/12/2018		
Somalia	NPL Kenya / CDC	335	38	2	32	249	3	11		16			5	6 #		15	7 #			3		11%	15%		100%	23/12/2018		
Sudan	NPL Sudan / RRL Egypt	545	7		50	470		18		5						2						11%	96%	100%	86%	08/12/2018		
Syria	NPL Syria / RRL Egypt	330	6		11	299	8	6		3						4						4%	100%	100%	67%	20/12/2018		
Tunisia	RRL Tunisia	68			2	65		1														2%	98%		97%	14/12/2018		
U.A.E	NPL Oman / CDC	38			4	34																9%	89%		84%	24/12/2018		
Yemen	NPL Kenya / CDC																									22/12/2018		
<b>Total EMR 2018</b>		19381	806	84	3330	14404	662	93	25	529	2		5	6		570	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)

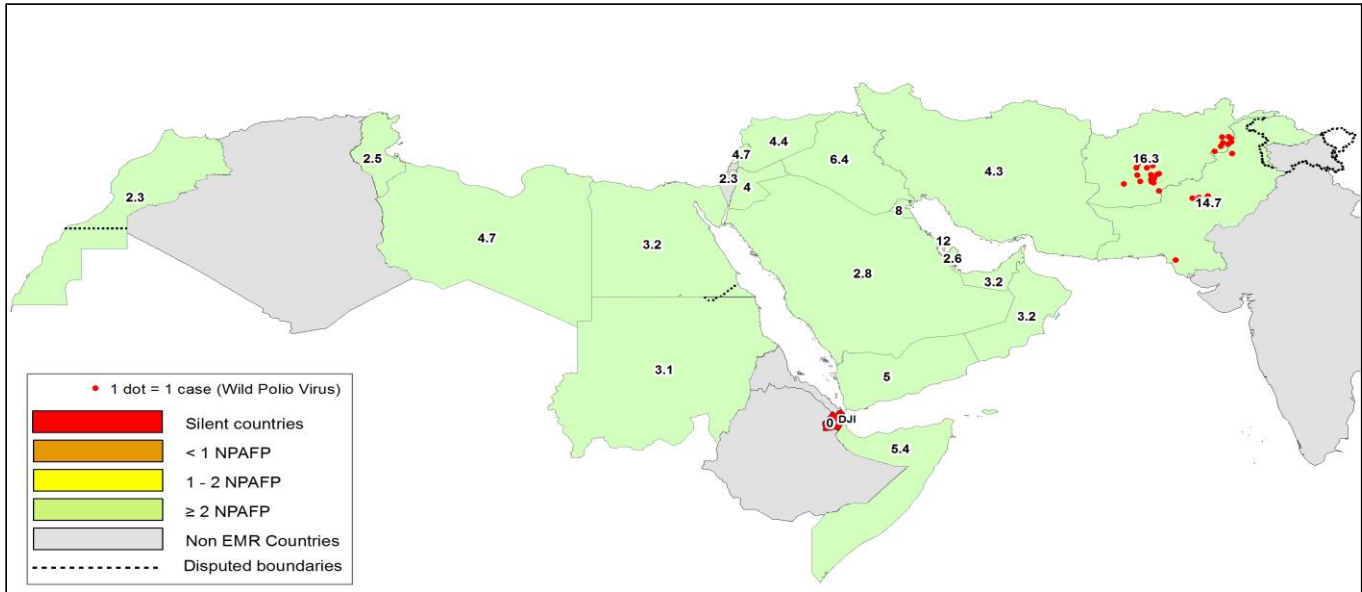
**Table 6: Environmental isolate by year and type**

Country	Status	2015	2016	2017	2018
AFG	NEGATIVE	129	183	274	236
	PENDING				10
	WILD	20	2	42	70
<b>AFG Total</b>		<b>149</b>	<b>185</b>	<b>316</b>	<b>316</b>
EGY	NEGATIVE	495	528	522	509
	PENDING				18
	VDPV2	3	1		
<b>EGY Total</b>		<b>498</b>	<b>529</b>	<b>522</b>	<b>527</b>
IRN	NEGATIVE			6	46
	PENDING				2
<b>IRN Total</b>				<b>6</b>	<b>48</b>
JOR	NEGATIVE		2	32	18
	PENDING				16
<b>JOR Total</b>			<b>2</b>	<b>32</b>	<b>34</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	501
	PENDING				36
	WILD	79	59	105	121
	WILD & VDPV2	5	3	1	
<b>PAK Total</b>	<b>439</b>	<b>529</b>	<b>633</b>	<b>658</b>	
SOM	NEGATIVE			34	174
	PENDING				3
	VDPV2			2	20
	VDPV3				12
<b>SOM Total</b>			<b>36</b>	<b>209</b>	
SYR	NEGATIVE			4	83
	PENDING				12
<b>SYR Total</b>			<b>4</b>	<b>95</b>	
<b>Grand Total</b>		<b>1086</b>	<b>1249</b>	<b>1576</b>	<b>1928</b>

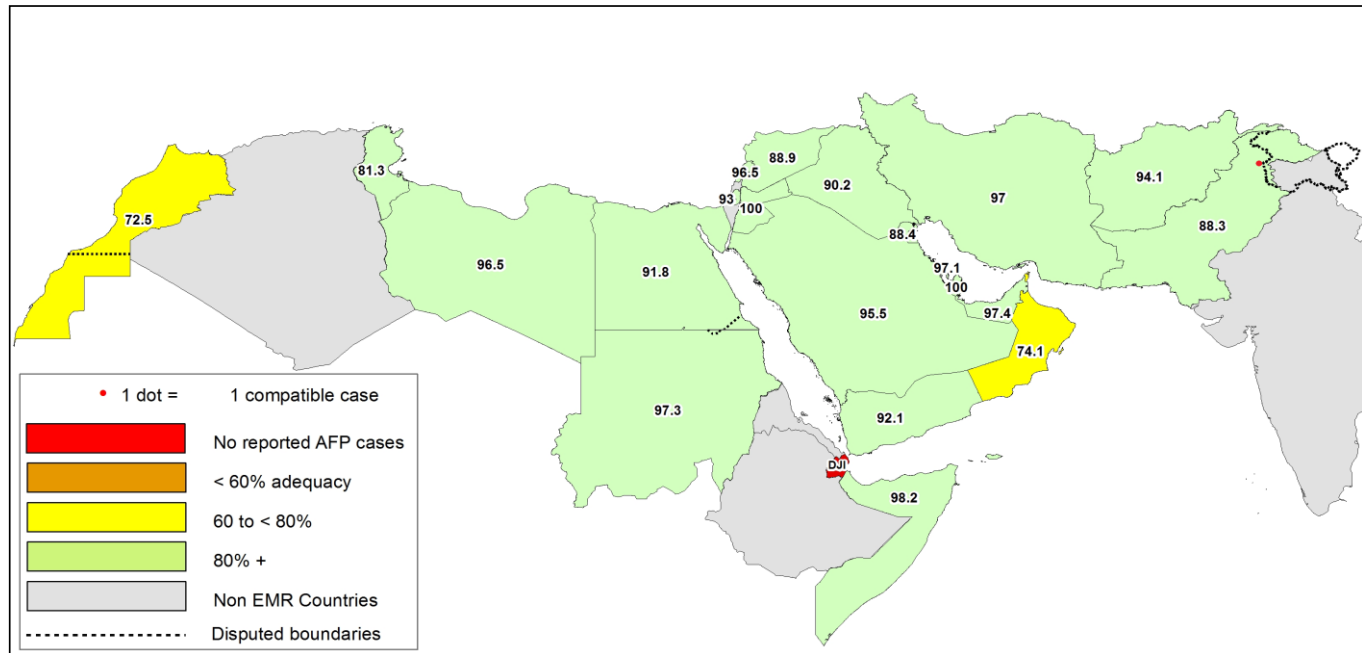
**Table 7: Environmental Wild/VDPV isolate by site**

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	5	10/Feb				10/Jul			
	PUNJAB	1	18/Dec				18/Dec			
	LAHORE	1	9/Jan				9/Jan			
	RAWALPINDI	8	10/Jan				10/Oct			
	JACOBABAD	4	11/Aug				13/Dec			
	PAK	WILD & VDPV2	BALOCHISTAN	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				
PESHAWAR				8	10/Jan	11/Dec				
KABDULAH				1	15/Jul	15/Jul				
PAK	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>							
<b>SOM</b>	<b>VDPV2</b>	<b>BANADIR</b>	<b>WABERI</b>	<b>2</b>	<b>22/Oct</b>	<b>2/Nov</b>				
<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			
				HERAT	1	25/Jun	25/Jun			
				KABUL	3	26/Feb	26/Jun			
				KANDAHAR	35	8/Jan	25/Nov			
				MATUN	1	25/Sep	25/Sep			
				ASADABAD	2	24/Apr	25/Sep			
				BEHSUD	3	28/Jan	25/Oct			
				JALALABAD	17	27/Jan	25/Nov			
				<b>AFG Total</b>	<b>70</b>	<b>8/Jan</b>	<b>25/Nov</b>			
				PAK	WILD	BALOCHISTAN	KABDULLAH	7	1/Jan	1/Dec
	LORALAI	2	17/Mar				17/Aug			
	QUETTA	11	13/Feb				28/Nov			
	ISLAMABAD	7	10/Jan				10/Nov			
	PUNJAB	9	11/Jun				12/Nov			
	RAWALPINDI	13	10/Jan				10/Nov			
	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			
	KHISADDAR	1	10/Sep				10/Sep			
	KHIMALIR	1	13/Sep				13/Sep			
	FATA	5	19/May				25/Oct			
	KHYBER PAKHTOONKHWA	3	31/Mar				27/Nov			
	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>121</b>	<b>1/Jan</b>	<b>1/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				
<b>SOM Total</b>	<b>32</b>	<b>4/Jan</b>	<b>11/Oct</b>							
<b>2018 Total</b>				<b>223</b>	<b>1/Jan</b>	<b>1/Dec</b>				

**Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2018 - 23/12/2018**



**Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2018 - 23/12/2018**



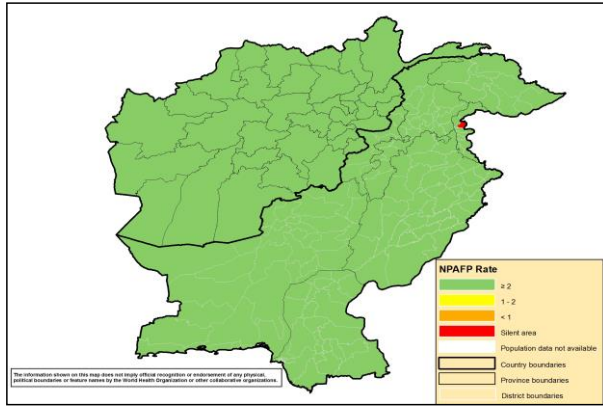
**Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2017 - 2018**

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

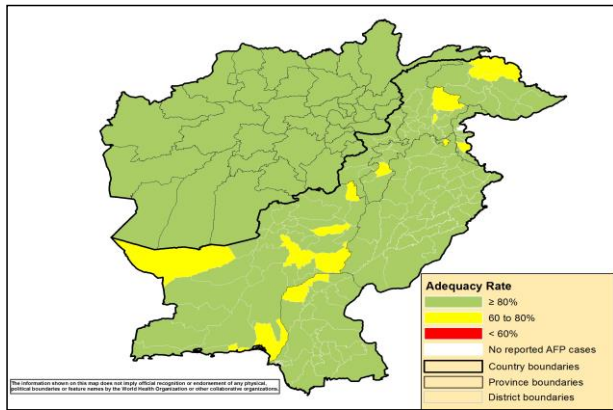
Last reported wild Polio P3 from Pakistan with date of onset 18/04/2012



**Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2018 - 23/12/2018**

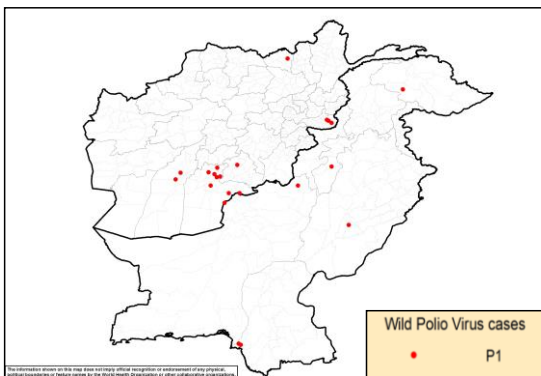


**Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2018 - 23/12/2018**

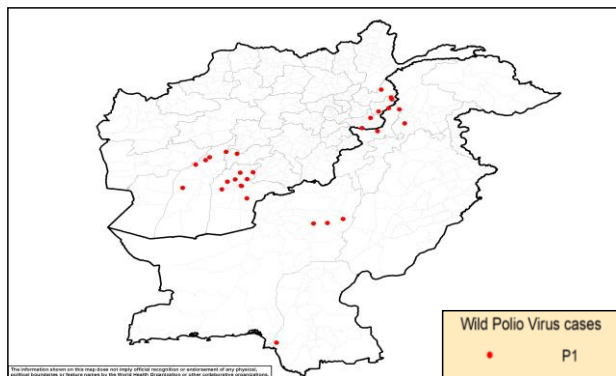


**Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan**

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



**5b: 01/01/2018 - 23/12/2018**



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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			
<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 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 WARSHEIKH				1	29-Jun-18	29-Jun-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			
<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 - 23/12/2018**

