

## **Highlights of Polio Fax Bulletin No. 1054 for Week 50 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: 13 new positive environmental samples for WPV1 were reported this week, which include six from Afghanistan and seven from Pakistan.
    - i. Afghanistan: Six new positive environmental samples reported this week, which include three from Lashkargah district, Hilmand province; two from Jalalabad district, Nangarhar province; and one from Kandahar district, Khandahar province. The total positive environmental samples from Afghanistan in 2018 to date are 70 with most recent positive sample collected on 25 November 2018.
    - ii. Pakistan: Seven new positive environmental samples reported this week, which include two each from Killa Abdullah and Quetta districts, from Balochistan province; two from Peshawar district and one from Bannu district of KP. The total positive environmental samples from Pakistan in 2018 to date are 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 70.2%
  - c. Oman has a percentage of AFP cases with adequate stool specimens of 73.1%
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.

## AFP SURVEILLANCE

17-Dec-18

Week 50, ending 16 December 2018

Number 1054

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

Country	Reported AFP cases by week of onset - Week (50/18) / Ending on : 16/12/2018														
	Total AFP 2016	Total AFP 2017	Total AFP to date, 2018	W39 30 Sep 18	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
Afghanistan	2905	3094	3189	74	85	50	62	66	75	78	60	48	56	47	6
Bahrain	14	18	32	1	0	0	2	1	1	2	0	2	0	0	
Djibouti	3	4	0	0	0	0	0	0	0	0	0	0	0	0	
Egypt	1092	1242	1174	19	28	33	18	26	16	22	22	26	15	6	0
Iran	776	820	810	22	23	17	5	13	17	16	18	12	17	4	0
Iraq	605	699	934	10	17	19	18	14	30	17	24	27	19	20	
Jordan ****	107	116	110	2	1	3	1	0	1	0	0	0	0	3	
Kuwait	50	69	66	0	2	1	2	3	1	2	3	2	2	1	0
Lebanon ****	111	75	86	1	0	2	1	1	1	2	2	0	5	2	
Libya	70	88	114	4	1	1	2	2	0	0	1	1	2	2	
Morocco	84	143	188	8	5	4	8	5	4	3	6	3	0	0	
Oman	39	40	26	3	1	1	1	0	1	0	0	0	0		
Pakistan	7848	10319	10976	239	204	275	237	229	236	276	229	225	196	44	0
Palestine ****	46	43	41	0	1	1	1	0	0	1	0	0	0		
Qatar	9	18	9	0	0	0	0	0	0	0	0	0	0		
Saudi Arabia	273	276	206	5	3	3	7	5	7	12	7	3	2	2	1
Somalia	316	345	332	7	10	4	6	7	4	7	6	4	3	4	0
Sudan	509	570	553	15	12	7	10	11	11	13	10	9	6	7	
Syria ****	303	362	326	5	7	12	6	5	8	6	7	4	6	3	
Tunisia	90	67	62	2	2	0	0	1	1	1	0	0			
U.A.E	42	58	39	0	1	1	0	0	1	1	0	0	1	1	0
Yemen	715	713	656	10	15	13	21	23	21	18	13	11	5	1	
<b>Total EMR</b>	<b>16007</b>	<b>19179</b>	<b>19929</b>	<b>427</b>	<b>418</b>	<b>447</b>	<b>408</b>	<b>412</b>	<b>436</b>	<b>477</b>	<b>408</b>	<b>377</b>	<b>335</b>	<b>147</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	16/12		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			
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			
Iran	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	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			
Oman	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	
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			
Somalia	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			
Syria ****	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			
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>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

## World Health Organization – Regional Office for Eastern Mediterranean

## AFP SURVEILLANCE

Week 50, ending 16 December 2018

17-Dec-18

Number 1054

Table 3: Investigation of AFP cases with paralysis onset in 2017 &amp; 2018 up to Week (50/18) / Ending on : 16/12/2018)

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	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	3189	21	0	268	2900	0	16.3	23	2	94.2	21	0	16/12/2018
Bahrain	18	0	0	0	18	0	6.2	0	0	100.0	0	0	32	0	0	10	22	0	11.5	2	0	96.9	0	0	13/12/2018
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	1174	0	0	76	1097	1	3.2	8	0	91.7	0	0	16/12/2018
Iran	820	0	0	0	820	0	4.3	0	0	96.7	0	0	810	0	0	20	789	1	4.4	0	0	96.9	0	0	16/12/2018
Iraq	699	0	0	0	699	0	4.7	0	0	86.7	0	0	934	0	0	123	811	0	6.4	13	0	90.3	0	0	14/12/2018
Jordan	116	0	0	0	116	0	4.2	0	0	100.0	0	0	110	0	0	3	107	0	4.1	0	0	100.0	0	0	13/12/2018
Kuwait	69	0	0	0	69	0	7.5	0	0	92.8	0	0	66	0	0	6	60	0	7.8	0	0	89.4	0	0	16/12/2018
Lebanon	75	0	0	0	75	0	4.0	0	0	80.0	0	0	86	0	0	11	75	0	4.8	0	0	96.5	0	0	14/12/2018
Libya	88	0	0	0	88	0	4.3	0	0	96.6	0	0	114	0	0	4	110	0	4.7	0	0	96.5	0	0	14/12/2018
Morocco	143	0	0	0	143	0	1.3	0	0	67.1	0	0	188	0	0	72	116	0	2.2	33	0	70.2	0	0	30/11/2018
Oman	40	0	0	0	40	0	4.5	0	0	90.0	0	0	26	0	0	0	26	0	3.1	0	0	73.1	0	0	02/12/2018
Pakistan	10330	8	2	0	10309	0	13.2	0	0	85.6	8	0	10976	8	1	674	10293	0	14.7	147	0	88.3	8	0	16/12/2018
Palestine	43	0	0	0	43	0	2.3	0	0	97.7	0	0	41	0	0	7	34	0	2.3	2	0	92.7	0	0	06/12/2018
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	02/12/2017
Saudi Arabia	276	0	0	0	276	0	3.5	0	0	98.9	0	0	206	0	0	62	144	0	2.7	4	0	95.6	0	0	13/12/2018
Somalia	345	0	0	1	344	0	6.0	1	1	99.1	0	0	332	0	0	16	304	12	5.4	1	1	98.2	0	0	16/12/2018
Sudan	570	0	0	0	570	0	3.2	0	0	96.3	0	0	553	0	0	20	533	0	3.2	0	0	97.3	0	0	13/12/2018
Syria	362	0	1	0	287	74	4.7	0	0	80.9	0	0	326	0	0	12	314	0	4.4	0	0	88.3	0	0	15/12/2018
Tunisia	67	0	0	0	67	0	2.5	0	0	74.6	0	0	62	0	0	4	58	0	2.4	1	1	80.6	0	0	30/11/2018
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	16/12/2018
Yemen	713	0	0	72	641	0	5.2	72	58	90.2	0	0	656	0	0	568	88	0	4.9	410	381	91.9	0	0	08/12/2018
EMR	19190	22	3	73	19005	76	7.7	73	59	88.9	22	0	19929	29	1	1958	17927	14	8.3	644	385	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

World Health Organization – Regional Office for Eastern Mediterranean  
AFP SURVEILLANCE  
Week 50, ending 16 December 2018

17-Dec-18  
Number 1054

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	210	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	459	0	0	11	53	19
IRN	143	0	0	5	1	0	137	0	0	3	5	0
IRQ	698	0	0	18	101	16	770	0	0	21	84	96
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	124	0	0	0	9	15
OMA	115	0	0	1	24	1	68	0	0	2	15	0
PAK	3758	2	0	234	899	0	3911	3	0	176	823	141
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	989	0	10	49	114	43
SUD	385	0	0	6	32	46	332	0	0	2	24	98
SYR	570	0	63	3	11	0	615	0		7	13	16
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	1406	0	0	0	0	1406
<b>EMR</b>	<b>10543</b>	<b>3</b>	<b>63</b>	<b>446</b>	<b>1715</b>	<b>774</b>	<b>10013</b>	<b>7</b>	<b>10</b>	<b>326</b>	<b>1365</b>	<b>1892</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>
2017	AFG	HILMAND	NAWZAD	1	16-04-17	16-04-17
	<b>2017 Total</b>				<b>1</b>	<b>16-04-17</b>

Week 50, ending 16 December 2018

**Table 5: Laboratory investigation of AFP cases with paralysis onset in 2018 up to Week (50/18) / Ending on : (16/12/2018)**

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	3055	215	23	578	2153	24	62	19	163						148						17%	91%	100%	98%	15/12/2018
Bahrain	NPL Oman / CDC	24			1	23																4%	100%		50%	17/12/2018
Djibouti	NPL Kenya / CDC																									09/12/2018
Egypt***	RRL Egypt	1154	33	6	154	930	24	7	16	1						18		8	1		12%	95%	100%	99%	13/12/2018	
Iran	NPL Iran / CDC	796	17		22	752	3	2	11	1						8					1	2%	100%	100%	99%	15/12/2018
Iraq	RRL Egypt	905	17		103	699	20	66	11							12						12%	100%	100%	76%	13/12/2018
Jordan	NPL Jordan / RRL EGYPT	109	4		6	97	2		3							4						8%	100%	100%	100%	13/12/2018
Kuwait	RRL Kuwait / RIVM	63	1		4	53	1	4											1			6%	97%		98%	06/12/2018
Lebanon	NPL Jordan / RRL EGYPT	83	2		6	73	1	1	2							2						8%	100%	100%	50%	13/12/2018
Libya	RRL Tunisia / RIVM	109	1		11	95	2									1						10%	100%	100%	97%	30/11/2018
Morocco	NPL Morocco / RRL Tunisia	166	2		4	152	3	5								2						3%	92%	0%	94%	14/12/2018
Oman	NPL Oman / CDC	26			5	21																22%	92%		100%	17/12/2018
Pakistan	RRL Pakistan	10502	437	50	2229	7371	134	278	6	288						338		1	10			18%	92%	99%	97%	15/12/2018
Palestine & UNRWA		41			6	33		2														15%	59%		100%	06/12/2018
Qatar	NPL Oman / CDC	9			1	8																11%	88%		100%	17/12/2018
Saudi Arabia	NPL Saudi Arabia / CDC	211	2		6	177		27								2						2%	96%	50%	100%	02/12/2018
Somalia	NPL Kenya / CDC	327	36	2	30	239	1	19	16			5	6 #		14	7 #				2		10%	14%		100%	16/12/2018
Sudan	NPL Sudan / RRL Egypt	545	7		50	470	4	14	5							2				2		11%	96%	100%	86%	08/12/2018
Syria	NPL Syria / RRL Egypt	322	6		11	293	5	7	3							4						4%	100%	100%	67%	13/12/2018
Tunisia	RRL Tunisia	67			2	64		1														2%	98%		97%	30/11/2018
U.A.E	NPL Oman / CDC	38			4	32		2														10%	89%		83%	17/12/2018
Yemen	NPL Kenya / CDC																									08/12/2018
<b>Total EMR 2018</b>		18552	780	81	3233	13735	222	499	25	518	2		5	6		555	7	2	20	1	3	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)

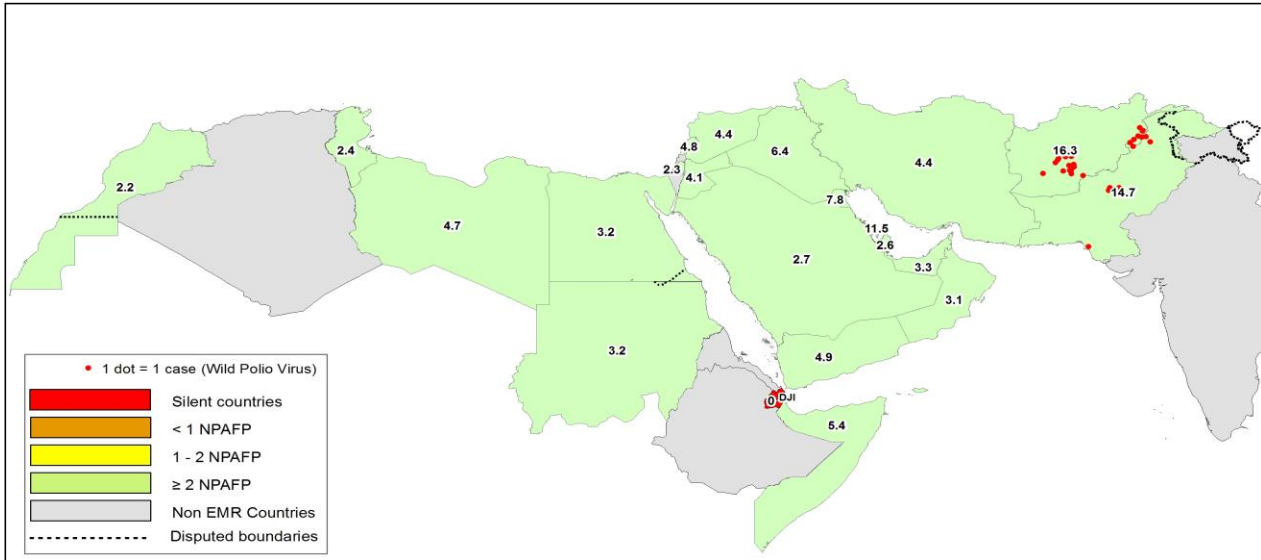
**Table 6: Environmental isolate by year and type**

Country	Status	2015	2016	2017	2018
AFG	NEGATIVE	129	183	274	234
	PENDING				12
	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	493
	PENDING				23
	VDPV2	3	1		
<b>EGY Total</b>		<b>498</b>	<b>529</b>	<b>522</b>	<b>516</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	495
	PENDING				28
	WILD	79	59	105	121
	WILD & VDPV2	5	3	1	
	VDPV2	8	5	4	
<b>PAK Total</b>		<b>439</b>	<b>529</b>	<b>633</b>	<b>644</b>
SOM	NEGATIVE			34	172
	PENDING				5
	VDPV2			2	20
	VDPV3				12
<b>SOM Total</b>				<b>36</b>	<b>209</b>
SYR	NEGATIVE			4	83
	PENDING				11
<b>SYR Total</b>				<b>4</b>	<b>94</b>
<b>Grand Total</b>		<b>1086</b>	<b>1249</b>	<b>1576</b>	<b>1902</b>

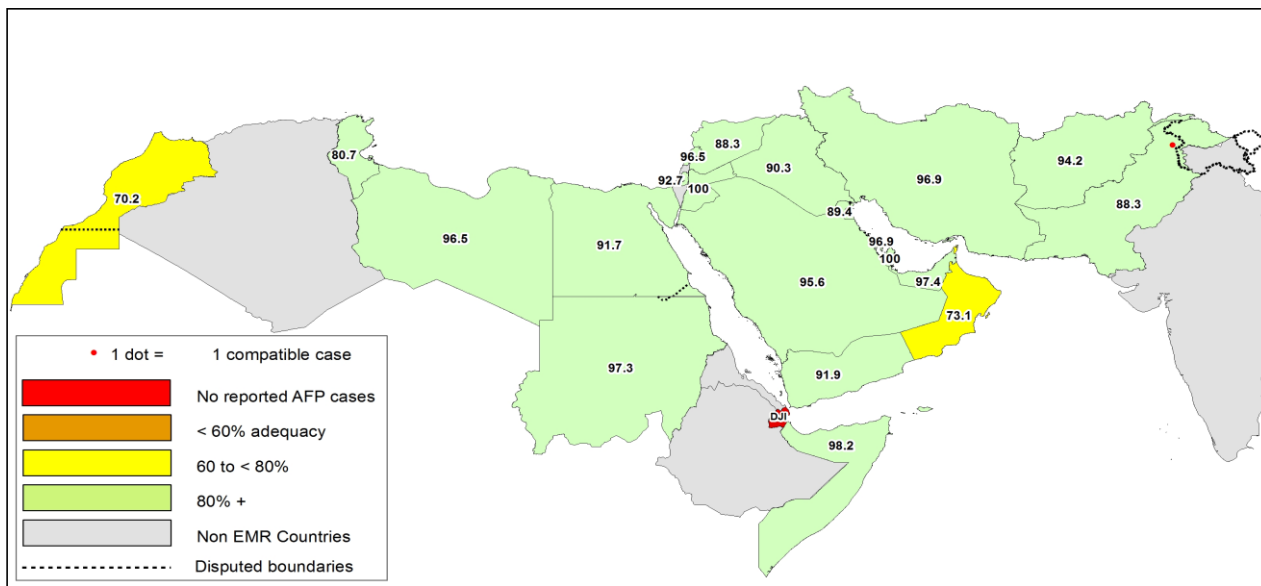
**Table 7: Environmental Wild/VDPV isolate by site**

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	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	
				MULTAN	1	9/Jan	9/Jan	
				RAWALPINDI	8	10/Jan	10/Oct	
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					
WILD & VDPV2	BALOCHISTAN	PESHAWAR	8	10/Jan	11/Dec			
		KABDULAH	1	15/Jul	15/Jul			
		PISHIN	1	2/May	2/May			
VDPV2	BALOCHISTAN	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	8	8/Jan	25/Nov	
				HERAT	1	25/Jun	25/Jun	
				KABUL	3	26/Feb	26/Jun	
				KANDAHAR	35	8/Jan	25/Nov	
				KHOST	1	25/Sep	25/Sep	
				KUNAR	2	24/Apr	25/Sep	
				NANGARHAR	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	
				CDA	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	BANNU	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		
VDPV3	BANADIR	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>223</b>	<b>1/Jan</b>	<b>1/Dec</b>		

**Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2018 - 16/12/2018**



**Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2018 - 16/12/2018**



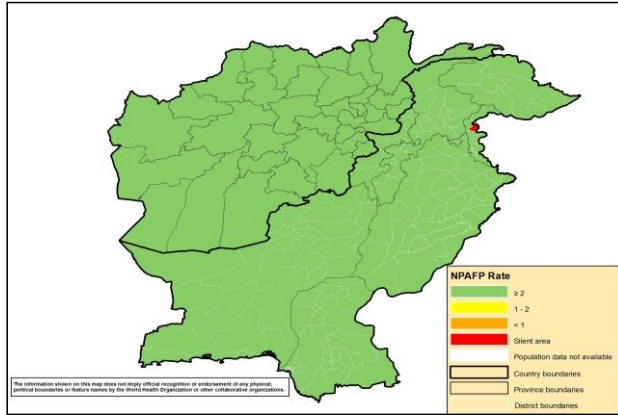
**Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2017 - 2018**

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

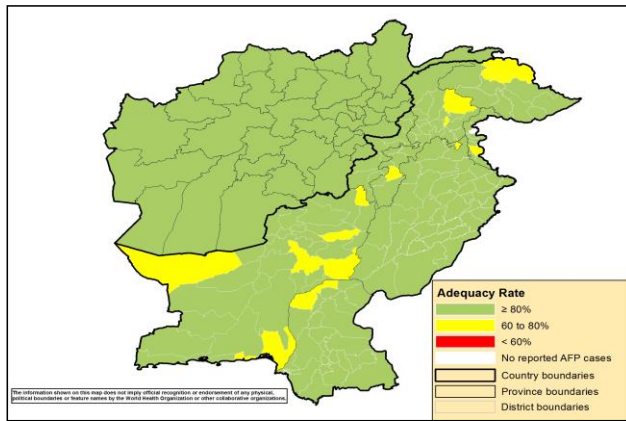
Last reported wild Polio P3 from Pakistan with date of onset 18/04/2012



**Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2018 - 16/12/2018**

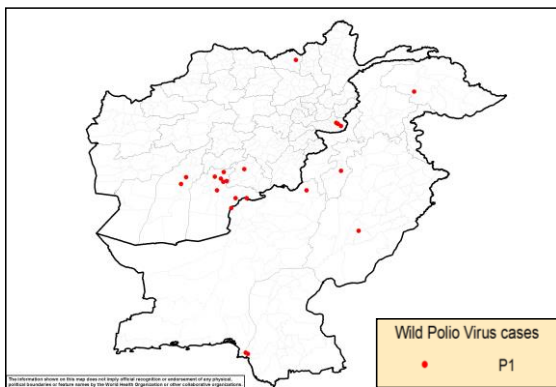


**Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2018 -16/12/2018**

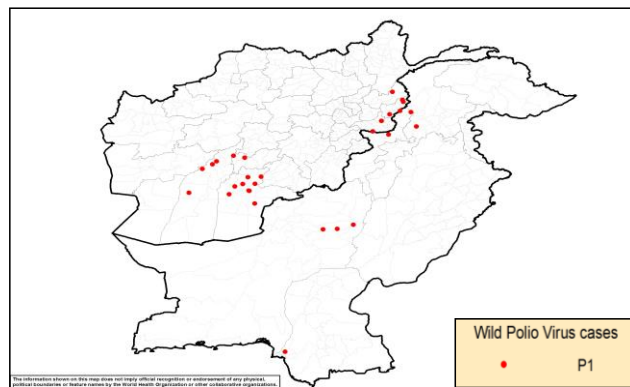


**Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan**

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



**5b: 01/01/2018 - 16/12/2018**



World Health Organization – Regional Office for Eastern Mediterranean  
AFP SURVEILLANCE  
Week 50, ending 16 December 2018

17-Dec-18  
Number 1054

**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
<b>2018 Total</b>			<b>21</b>	<b>1-Jan-18</b>	<b>6-Nov-18</b>
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
<b>2017 Total</b>			<b>14</b>	<b>13-Jan-17</b>	<b>28-Dec-17</b>

**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
<b>2018 Total</b>			<b>8</b>	<b>8-Mar-18</b>	<b>7-Oct-18</b>
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	
<b>2017 Total</b>			<b>8</b>	<b>28-Jan-17</b>	<b>15-Nov-17</b>

World Health Organization – Regional Office for Eastern Mediterranean  
 AFP SURVEILLANCE  
 Week 50, ending 16 December 2018

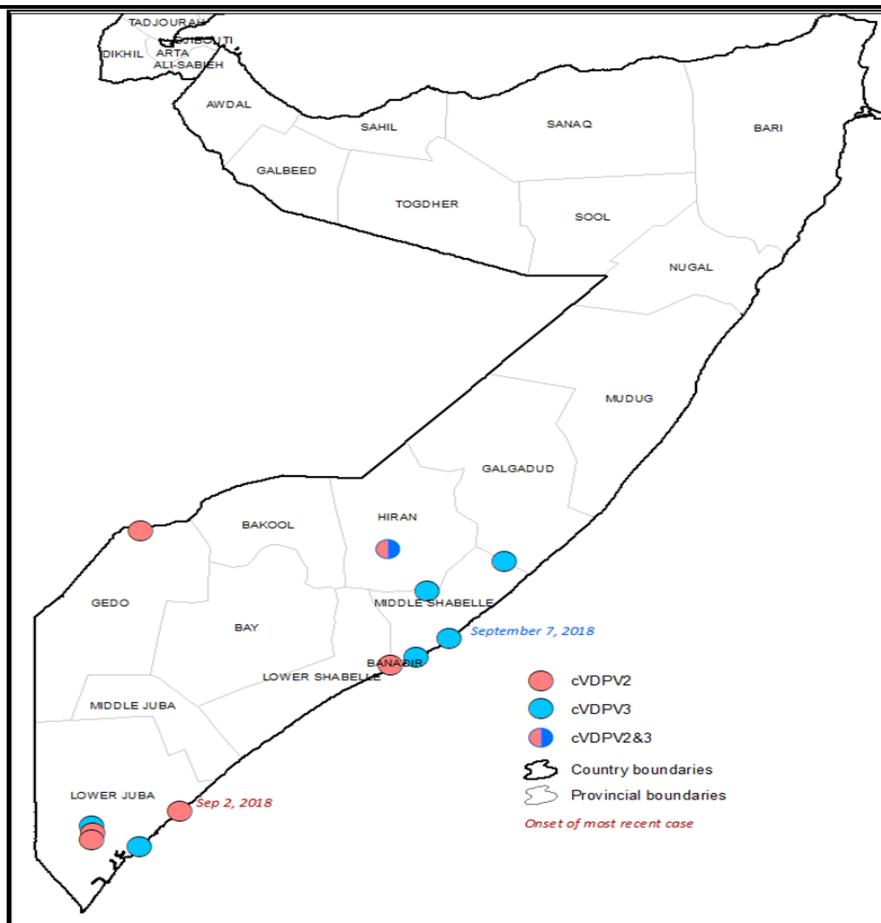
17-Dec-18  
 Number 1054

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

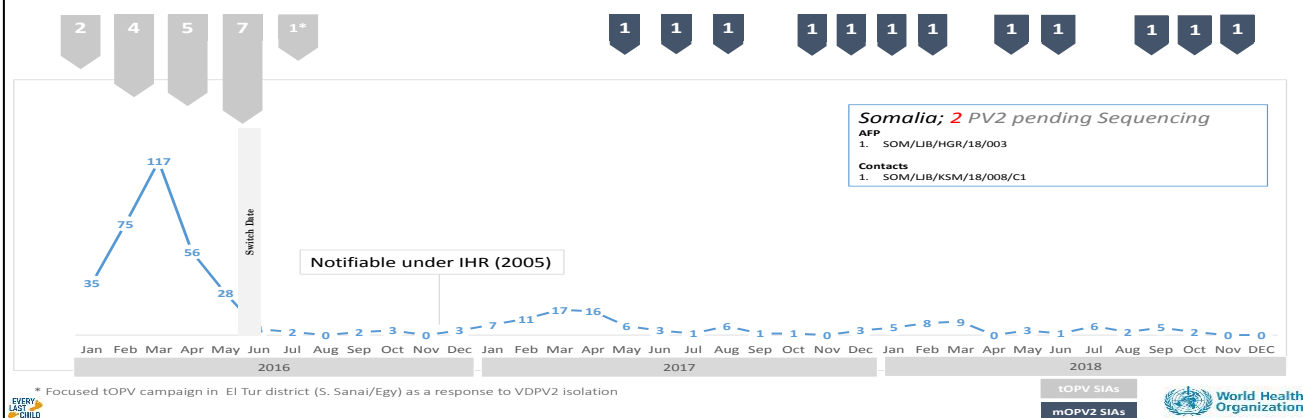
Year	COUNTRY	PROVINCE	DISTRICT	cVDPV2			cVDPV3		
				Count	First Case	Last Case	Count	First Case	Last Case
2017	SYR	HOMS	TADMOUR	1	10-Jul-17	10-Jul-17			
		DEIR_AL_ZOUR	DEIR ALZOUR	1	30-Jun-17	30-Jun-17			
		DEIR_AL_ZOUR	BOKAMAL	12	25-Jun-17	21-Sep-17			
		DEIR_AL_ZOUR	MAYADEEN	58	5-Mar-17	9-Sep-17			
		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
		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					
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)

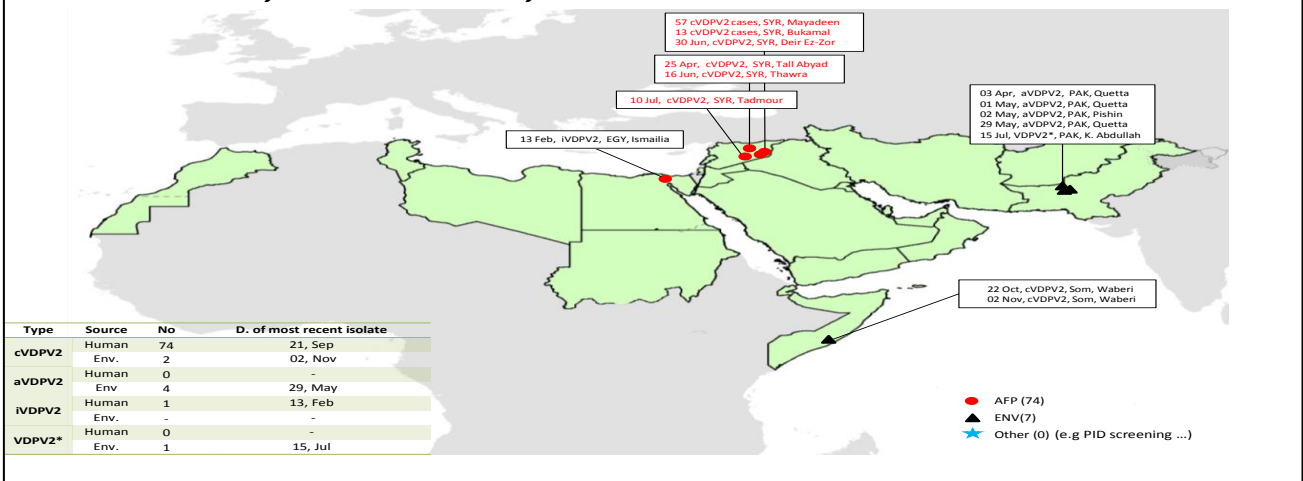
**Figure 6: Somalia cVDPV cases by type and district 01/01/2018 - 16/12/2018**



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



### VDPV2 isolates, EMR countries, 2017



### VDPV2 isolates, EMR countries, 2018

