

## Highlights of Polio Fax Bulletin No. 1093 for Week 37 2019

### I. Poliovirus Transmission

1. **Endemic countries (PAKISTAN & AFGHANISTAN):** No new wild poliovirus cases reported this week. Six new positive environmental samples reported this week all from Afghanistan.
  - a. *Human samples:* No new wild poliovirus cases reported this week. Total of WPV1 cases in 2019 to date are 78 (16 from Afghanistan and 62 from Pakistan). This compares with 21 cases in 2018 in the same period (Afghanistan – 16 and Pakistan – 5).
    - Afghanistan:  
In 2019 to date, 16 WPV1 cases are reported. They include 8 cases from Uruzgan province, 5 cases from Hilmand province, 2 from Kandahar province and 1 from Kunar province. The most recent case has onset of paralysis on 2 August 2019.
    - Pakistan:  
In 2019 to date, 62 WPV1 cases are reported from Pakistan. They include 35 from Khyber Pakhtunkhwa (KP) province, 11 from KP Tribal Districts (KPTD), 6 from Sindh province, and 5 each from Punjab and Balochistan provinces. The most recent case has onset of paralysis on 20 August 2019.

*Environmental samples:* Six new WPV1 positive environmental samples were reported from Afghanistan this week.

- Afghanistan: In 2019 to date, there are 35 positive environmental samples with most recent positive sample collected on 27 August 2019.
- Pakistan: In 2019 to date, there are 217 positive environmental samples with most recent positive sample collected on 26 August 2019.

### 2. Outbreak response countries

**SOMALIA:** No new cVDPV2 or cVDPV3 isolates from human or environmental samples were reported this week.

- In 2019 to date, Somalia has reported three cVDPV2 cases. The most recent reported case has date of onset of paralysis on 8 May 2019.
- In addition, cVDPV2 was isolated from healthy child sample collected during community sampling on 25 May 2019. aVDPV2 was isolated from an environmental sample on 3 February 2019.
- In 2018: Somalia has reported a total of 12 cases due to cVDPVs, which include 5 due to cVDPV2, 6 due to cVDPV3 and 1 due to co-infection of cVDPV2 and cVDPV3. The last cVDPV3 was isolated from a sewage sample from Mogadishu collected on 23 August 2018.

## II. Surveillance performance indicators

In 2019, 18 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 has a non-polio AFP rate of 1.2 and percentage of AFP cases with adequate stool specimens of 66.7%.
- Morocco has a percentage of AFP cases with adequate stool specimens of 77.5%.
- Qatar has a percentage of AFP cases with adequate stool specimens of 60%.
- Tunisia has a percentage of AFP cases with adequate stool specimens of 73.1%.
- In Yemen there are AFP cases pending final classification more than 90 days due to delayed lab results because of delay shipment of specimens to reference polio laboratories.

Kuwait is the first among GCC countries that formally established the environmental surveillance. Initially three sample collection sites were identified. Kuwait team completed pilot testing of sewage samples in Kuwait polio lab successfully. The three results showed NPEV, SL1+NPEV and SL1+SL3 respectively.

## 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 (37/19) / Ending on : 15/09/2019														
	Total AFP 2017	Total AFP 2018	Total AFP to date, 2019	W26 30 Jun 19	W27 07 Jul 19	W28 14 Jul 19	W29 21 Jul 19	W30 28 Jul 19	W31 04 Aug 19	W32 11 Aug 19	W33 18 Aug 19	W34 25 Aug 19	W35 01 Sep 19	W36 08 Sep 19	W37 15 Sep 19
Afghanistan	3094	3378	2629	83	78	75	81	68	79	37	73	80	55	46	7
Bahrain	18	35	11	0	0	0	1	0	0	0	0	0	0	0	0
Djibouti	4	0	3	1	0	0	0	0	0	1	0	0	1	0	0
Egypt	1242	1246	883	20	33	28	23	28	15	7	23	29	25	5	
Iran	820	896	653	15	20	19	24	17	15	23	19	13	4	0	0
Iraq	699	1023	741	21	30	18	22	22	12	6	15	28	17	8	
Jordan ****	116	115	89	3	0	2	1	1	0	0	2	2	0	1	0
Kuwait	69	72	25	1	1	0	0	0	0	0	0	0	0	0	
Lebanon ****	80	94	59	0	1	3	2	2	2	1	0	1	0	2	
Libya	88	122	62	1	0	1	3	2	1	1	3	9	2	0	
Morocco	143	212	129	3	3	4	7	3	1						
Oman	40	28	14	0	1	0	0	0	0	0	1	1			
Pakistan	10319	12276	9418	272	316	321	290	304	252	240	265	290	113	9	0
Palestine ****	43	44	40	0	1	5	0	1	1	0	1	1	1	0	0
Qatar	18	10	5	0	0	0	1	0	0	1	0	0	0	1	
Saudi Arabia	276	241	128	1	0	0	0	0							
Somalia	345	353	257	8	8	7	9	8	4	7	5	5	6	4	1
Sudan	570	579	368	11	10	23	8	14	8	4	11	17	14	7	0
Syria ****	362	362	257	4	8	12	7	6	5	2	3	4	3	5	
Tunisia	67	68	52	0	3	0	2	2	1	1	2	0	1	0	
U.A.E	58	40	28	0	1	2	0	1	1	0	1	1	2	0	0
Yemen	713	730	523	19	29	26	12	8	14	8	12	10	11	7	
<b>Total EMR</b>	<b>19184</b>	<b>21924</b>	<b>16374</b>	<b>463</b>	<b>543</b>	<b>546</b>	<b>493</b>	<b>487</b>	<b>411</b>	<b>339</b>	<b>436</b>	<b>491</b>	<b>255</b>	<b>95</b>	<b>8</b>

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2017	Total year 2018	15/09		Confirmed polio cases by month of onset											
			2018	2019	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019	May 2019	June 2019	July 2019	August 2019	September 2019
Afghanistan	14	21	16	16	2	1	0	2	1	3	1	5	1	2	1	
Bahrain	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			
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			
Jordan ****	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			
Morocco	0	0	0	0		0	0				0					
Oman	0	0	0	0		0	0				0					
Pakistan	8	12	5	62	1	0	4	4	2	0	11	11	16	12	6	
Palestine ****	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		
Somalia	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			
Yemen	0	0	0	0						0						
<b>Total EMR</b>	<b>22</b>	<b>33</b>	<b>21</b>	<b>78</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>12</b>	<b>16</b>	<b>17</b>	<b>14</b>	<b>7</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 2018 &amp; 2019 up to Week (37/19) / Ending on : 15/09/2019

COUNTRY	2018											2019											Latest line List Date		
	AFP									Specimen	Wild cases ****		AFP									Specimen		Wild cases ****	
	Total AFP cases onset 2018	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 2019	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	3378	21	0	0	3357	0	16.6	0	0	93.8	21	0	2629	16	0	246	2367	0	18.3	31	4	94.2	16	0	15-09-2019
Bahrain	35	0	0	0	35	0	12.1	0	0	97.1	0	0	11	0	0	11	0	0	5.4	10	10	100.0	0	0	15-09-2019
Djibouti	0	0	0	0	0	0	0.0	0	0		0	0	3	0	0	3	0	0	1.2	0	0	66.7	0	0	15-09-2019
Egypt	1246	0	0	2	1243	1	3.2	2	0	93.2	0	0	883	0	0	84	799	0	3.3	1	0	90.6	0	0	12-09-2019
Iran	896	0	0	0	894	2	4.6	0	0	97.0	0	0	653	0	0	31	622	0	4.8	0	0	96.0	0	0	15-09-2019
Iraq	1023	0	0	0	1023	0	6.7	0	0	89.9	0	0	741	0	0	54	687	0	6.9	10	0	94.6	0	0	13-09-2019
Jordan	115	0	0	0	115	0	4.1	0	0	100.0	0	0	89	0	0	4	85	0	4.5	0	0	100.0	0	0	15-09-2019
Kuwait	72	0	0	0	72	0	8.1	0	0	90.3	0	0	25	0	0	0	25	0	4.0	0	0	84.0	0	0	08-09-2019
Lebanon	94	0	0	3	91	0	5.0	3	0	92.6	0	0	59	0	0	9	50	0	4.5	5	0	83.1	0	0	13-09-2019
Libya	122	0	0	0	122	0	4.9	0	0	96.7	0	0	62	0	0	7	55	0	3.5	1	0	98.4	0	0	14-09-2019
Morocco	212	0	0	1	211	0	2.4	1	0	77.8	0	0	129	0	0	56	73	0	2.0	36	11	77.5	0	0	02-08-2019
Oman	28	0	0	0	28	0	3.2	0	0	92.9	0	0	14	0	0	2	12	0	2.1	0	0	92.9	0	0	28-08-2019
Pakistan	12276	12	1	0	12263	0	15.7	0	0	87.0	12	0	9418	62	0	649	8707	0	17.0	197	0	88.5	62	0	15-09-2019
Palestine	44	0	0	0	44	0	2.3	0	0	90.9	0	0	40	0	0	10	30	0	3.0	0	0	100.0	0	0	15-09-2019
Qatar	10	0	0	0	10	0	2.8	0	0	100.0	0	0	5	0	0	4	1	0	2.0	1	0	60.0	0	0	12-09-2019
Saudi Arabia	241	0	0	0	241	0	3.0	0	0	95.9	0	0	128	0	0	46	82	0	2.2	44	7	90.6	0	0	01-08-2019
Somalia	353	0	0	0	341	12	5.5	0	0	97.7	0	0	257	0	0	23	231	3	5.7	0	0	95.7	0	0	15-09-2019
Sudan	579	0	0	0	579	0	3.2	0	0	97.2	0	0	368	0	0	49	319	0	2.9	3	3	97.3	0	0	15-09-2019
Syria	362	0	0	0	362	0	4.7	0	0	87.0	0	0	257	0	0	15	242	0	4.7	0	0	86.0	0	0	14-09-2019
Tunisia	68	0	0	0	68	0	2.6	0	0	80.9	0	0	52	0	0	7	44	1	2.6	0	0	73.1	0	0	13-09-2019
U.A.E	40	0	0	0	40	0	3.2	0	0	97.5	0	0	28	0	0	11	17	0	3.2	2	0	85.7	0	0	15-09-2019
Yemen	730	0	0	140	590	0	5.2	140	129	91.6	0	0	523	0	0	417	106	0	5.3	248	229	90.2	0	0	14-09-2019
EMR	21924	33	1	146	21729	15	8.7	146	129	89.8	33	0	16374	78	0	1738	14554	4	9.2	589	264	90.4	78	0	
2017	19179	22	3	72	19006	76	7.7	72	58	88.9	22	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, 2018 - 2019

COUNTRY	2018						2019					
	# OF CONTACTS	LAB RESULTS					# OF CONTACTS	LAB RESULTS				
		WILD	VDPV	SL	NPEV	PENDING		WILD	VDPV	SL	NPEV	PENDING
AFG	1009	4	0	52	217	0	824	6	0	33	148	22
BAH	2	0	0	0	0	0	0	0	0	0	0	0
DJI	0	0	0	0	0	0	0	0	0	0	0	0
EGY	495	0	0	11	58	17	369	0	0	7	37	39
IRN	145	0	0	3	6	0	116	0	0	3	4	0
IRQ	811	0	0	22	93	9	389	0	0	7	14	9
JOR	0	0	0	0	0	0	0	0	0	0	0	0
KUW	0	0	0	0	0	0	0	0	0	0	0	0
LEB	229	0	0	3	16	22	22	0	0	0	3	0
LIB	1	0	0	0	0	0	3	0	0	0	0	0
MOR	161	0	0	0	9	9	49	0	0	1	0	19
OMA	70	0	0	2	16	0	23	0	0	1	8	0
PAK	4200	3	0	207	882	0	3494	6	0	150	614	125
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	5	0	0	0	0	5	0	0	0	0	0	0
SOM	1052	0	10	49	133	1	777	0	1	21	89	72
SUD	350	0	0	3	24	88	248	0	0	0	16	54
SYR	670	0	0	8	17	0	556	0	0	10	27	32
TUN	1	0	0	0	0	0	13	0	0	0	2	0
UAE	0	0	0	0	0	0	0	0	0	0	0	0
YEM	1558	0	0	0	0	1459	320	0	0	0	0	321
<b>EMR</b>	<b>10759</b>	<b>7</b>	<b>10</b>	<b>360</b>	<b>1471</b>	<b>1610</b>	<b>7203</b>	<b>12</b>	<b>1</b>	<b>233</b>	<b>962</b>	<b>693</b>

Table 4 (B): Most recent wild contacts in EMRO, 2018 - 2019

Year	Country	Data	
		Count of wild contacts	Date of Most Recent stool collection
2019	Afghanistan	6	17/Aug/19
	Pakistan	6	21/Jul/19
<b>2019 Total</b>		<b>12</b>	<b>17/Aug/19</b>
2018	Afghanistan	4	7/Aug/18
	Pakistan	3	12/Oct/18
<b>2018 Total</b>		<b>7</b>	<b>12/Oct/18</b>

Table 4 (C): Number and distribution by district of -ve index AFP cases identified as wild positive by contact in EMR, 2018-2019

YEAR	COUNTRY	PROVINCE	DISTRICT	COUNT	First case	Last case
2019	AFG	URUZGAN	TIRINKOT	1	2-Aug-19	2-Aug-19
		HILMAND	MUSAQALAH	1	5-Jun-19	5-Jun-19
		HILMAND	SANGIN	1	6-Mar-19	6-Mar-19
	PAK	BALOCHSITAN	KILLABDULLAH	1	2-Jul-19	2-Jul-19
		KHYBER PAKHTUNKHWA (KP)	LAKKIMRWT	1	27-May-19	27-May-19
		KHYBER PAKHTUNKHWA (KP)	TORGHAR	1	25-May-19	25-May-19
<b>2019 Total</b>				<b>6</b>	<b>06-Mar-19</b>	<b>02-Aug-19</b>
2018	AFG	NANGARHAR	PACHIERAGAM	1	17-Jul-18	17-Jul-18
		URUZGAN	SHAHID-E-HASSA	1	8-Jul-18	8-Jul-18
	PAK	KHYBER PAKHTUNKHWA TRIBAL DISTRICTS (KPTD)	BAJOUR	1	1-Sep-18	1-Sep-18
		BALOCHSITAN	DUKKI	1	15-Apr-18	15-Apr-18
<b>2018 Total</b>				<b>4</b>	<b>15-Apr-18</b>	<b>01-Sep-18</b>

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**Table 5: Laboratory investigation of AFP cases with paralysis onset in 2019 up to Week (37/2019) / Ending on : (15/09/2019)**

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	2534	193	21	398	1863	59		13	145					133		1	1	1	7	14%	95%	100%	98%	15/09/2019
Bahrain	NPL Oman / CDC																								09/09/2019
Djibouti	NPL Kenya / CDC						1	2																	15/09/2019
Egypt***	RRL Egypt	862	33	5	81	698	39	6		14					19			8	3		10%	95%	100%	99%	12/09/2019
Iran	NPL Iran / CDC	673	9		14	629	20	1		2					6		1				3%	100%	100%	99%	14/09/2019
Iraq	RRL Egypt	757	11		101	603	35	7		5					9						12%	100%	100%	69%	12/09/2019
Jordan	NPL Jordan / RRL EGYPT	89			12	76	1	1													14%	100%			15/09/2019
Kuwait	RRL Kuwait / RIVM	32			2	25	1	4													8%	85%		100%	12/09/2019
Lebanon	NPL Jordan / RRL EGYPT	55	1		6	48								1							11%	100%	100%	0%	15/09/2019
Libya	RRL Tunisia / RIVM	58			1	48		9													1%	98%		98%	06/09/2019
Morocco	NPL Morocco / RRL Tunisia	132	1		2	119	3	7							1						2%	100%	100%	96%	06/09/2019
Oman	NPL Oman / CDC	14			3	10		1													28%	100%		100%	09/09/2019
Pakistan	RRL Pakistan	9209	371	42	1535	7019	221	8	59	219					224			5	1	5	14%	97%	99%	97%	15/09/2019
Palestine & UNRWA		40			6	32	1	1													16%	35%		100%	15/09/2019
Qatar	NPL Oman / CDC	4				4															0%	100%		100%	09/09/2019
Saudi Arabia	NPL Saudi Arabia / CDC	164	4		1	149	8	2							4						1%	95%	100%	100%	12/07/2019
Somalia	NPL Kenya / CDC	257	14		48	174	8	13		4			4	3	4					2	21%	15%		99%	15/09/2019
Sudan	NPL Sudan / RRL Egypt	344	6		49	266	6	17		5					2						13%	58%	100%	63%	05/09/2019
Syria	NPL Syria / RRL Egypt	249	12		13	214	10			5					9						6%	100%	100%	50%	12/09/2019
Tunisia	RRL Tunisia	48			3	43	1	1													8%	100%		98%	06/09/2019
U.A.E	NPL Oman / CDC	21			3	14	4														18%	100%		53%	09/09/2019
Yemen	NPL Kenya / CDC																								14/09/2019
<b>Total EMR 2019</b>		15545	655	68	2278	12034	418	80	72	399			4	3	412		2	14	5	14	13%	94%	99%	97%	
<b>Total EMR 2018</b>		20746	902	90	3513	16220		17	29	590	3		6	6 #	628	7 #		22	1	3	14%	92%	99%	97%	
* Specimens from all sources including non-AFP cases, excluding environmental samples									# Somalia in 2018 so far has a total of 12 cVDPV cases (5 cVDPV2, 6 cVDPV3 & 1 coinfection cVDPV2/cVDPV3)																
** This indicator reflects surveillance and laboratory activities																									

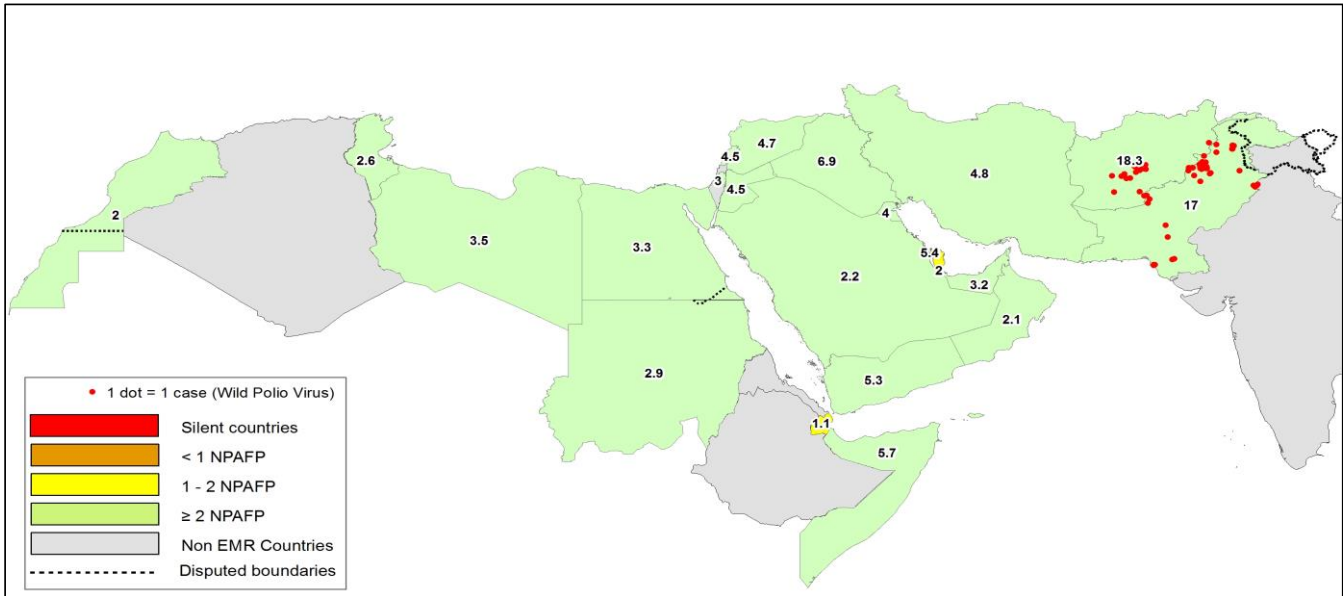
**Table 6: Environmental isolate by year and type**

Country	Status	2015	2016	2017	2018	2019
AFG	NEGATIVE	129	183	274	253	128
	PENDING					5
	WILD	20	2	42	83	35
<b>AFG Total</b>		<b>149</b>	<b>185</b>	<b>316</b>	<b>336</b>	<b>168</b>
EGY	NEGATIVE	493	528	522	540	513
	PENDING	2				21
	VDPV2	3	1			
<b>EGY Total</b>		<b>498</b>	<b>529</b>	<b>522</b>	<b>540</b>	<b>534</b>
IRN	NEGATIVE			6	54	50
	PENDING					3
	WILD					3
<b>IRN Total</b>				<b>6</b>	<b>54</b>	<b>56</b>
JOR	NEGATIVE		2	32	36	24
	PENDING					1
<b>JOR Total</b>			<b>2</b>	<b>32</b>	<b>36</b>	<b>25</b>
LEB	NEGATIVE		4	27	45	29
	PENDING					3
<b>LEB Total</b>			<b>4</b>	<b>27</b>	<b>45</b>	<b>32</b>
PAK	NEGATIVE	347	462	523	534	266
	PENDING					16
	WILD	79	59	105	139	217
	WILD & VDPV2	5	3	1		
	VDPV2	8	5	4		
<b>PAK Total</b>		<b>439</b>	<b>529</b>	<b>633</b>	<b>673</b>	<b>499</b>
SOM	NEGATIVE			34	181	35
	PENDING					4
	VDPV2			2	20	1
	VDPV3					12
<b>SOM Total</b>				<b>36</b>	<b>213</b>	<b>40</b>
SUD	NEGATIVE				15	25
	PENDING					15
<b>SUD Total</b>					<b>15</b>	<b>40</b>
SYR	NEGATIVE			4	102	114
	PENDING					11
<b>SYR Total</b>				<b>4</b>	<b>102</b>	<b>125</b>
<b>Grand Total</b>		<b>1086</b>	<b>1249</b>	<b>1576</b>	<b>2014</b>	<b>1519</b>

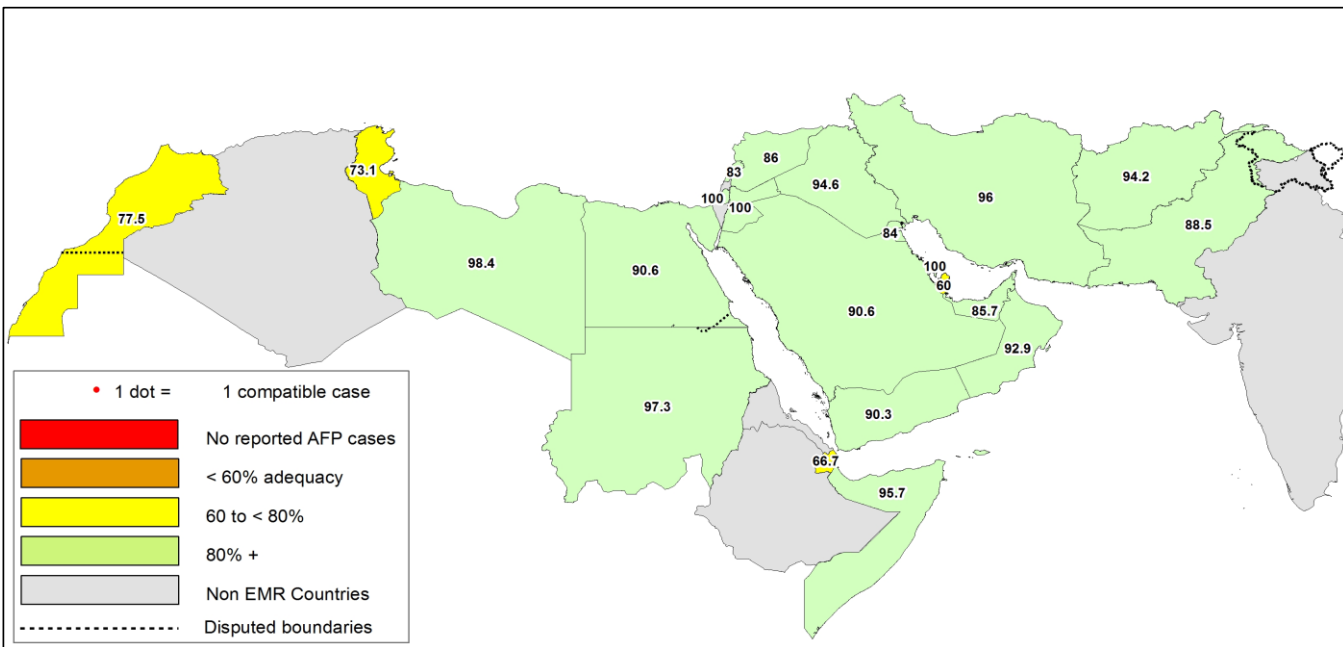
**Table 7: Environmental Wild/VDPV isolate by site**

Country	COUNTRY	Status	PROVINCE	DISTRICT	Count	First date	Last date		
2018	AFG	WILD	HILMAND	LASHKARGAH	12	8-Jan	26-Dec		
				HERAT	1	25-Jun	25-Jun		
				KABUL	3	26-Feb	26-Jun		
				KANDAHAR	42	8-Jan	26-Dec		
				KHOST	1	25-Sep	25-Sep		
				KUNAR	2	24-Apr	25-Sep		
				BEHSUD	3	28-Jan	25-Oct		
				JALALABAD	19	27-Jan	26-Dec		
				<b>AFG Total</b>				<b>83</b>	<b>8-Jan</b>
	PAK	WILD	BALOCHISTAN	LORALAI	2	17-Mar	17-Aug		
				PISHIN	1	2-Dec	2-Dec		
				QUETTA	13	13-Feb	20-Dec		
				KABDULAH	8	1-Jan	15-Dec		
				ISLAMABAD	7	10-Jan	10-Nov		
				PUNJAB	LAHORE	12	11-Jun	18-Dec	
					RAWALPINDI	15	10-Jan	14-Dec	
					DGKHAN	2	12-Feb	12-Sep	
					SINDH	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	15	15-Feb	11-Dec	
					KHIGQBAL	1	13-Sep	13-Sep	
					KHIKORANGI	1	14-Dec	14-Dec	
				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			
KP TRIBAL DISTRICTS	BAJOUR	5	19-May	25-Oct					
	WAZIR-S	2	26-Nov	27-Dec					
	BANNU	4	31-Mar	27-Dec					
KHYBER PAKHTOONKHUWA	KOHAT	5	5-Jan	27-Sep					
	MARDAN	2	15-Oct	15-Nov					
	NOWSHERA	2	18-Sep	18-Oct					
	PESHAWAR	23	10-Jan	26-Dec					
<b>PAK Total</b>				<b>139</b>	<b>1-Jan</b>	<b>27-Dec</b>			
SOM	VDPV2	BANADIR	HAMAR WEYN	11	4-Jan	20-Sep			
			HODAN	2	22-Feb	4-Oct			
	VDPV3	BANADIR	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>254</b>	<b>1-Jan</b>	<b>27-Dec</b>			
2019	AFG	WILD	HILMAND	LASHKARGAH	4	23-Feb	24-Jul		
				NAHR-E-SARAJ	4	6-Jan	26-Aug		
				KANDAHAR	21	6-Jan	26-Aug		
				NANGARHAR	6	26-Jan	27-Aug		
	<b>AFG Total</b>				<b>35</b>	<b>6-Jan</b>	<b>27-Aug</b>		
	PAK	WILD	BALOCHISTAN	KHUZDAR	1	20-Mar	20-Mar		
				LORALAI	1	17-Mar	17-Mar		
				PISHIN	3	2-Feb	2-Jul		
				QUETTA	23	1-Jan	20-Aug		
				DBUGTI	1	19-Aug	19-Aug		
				KABDULAH	8	1-Jan	19-Apr		
				ISLAMABAD	3	12-Apr	21-Aug		
				PUNJAB	FAISALABAD	3	3-Jan	17-Jul	
					LAHORE	37	5-Jan	19-Aug	
					MULTAN	4	18-Feb	18-Jul	
					RAWALPINDI	9	10-Jan	22-Jul	
					DGKHAN	1	8-Apr	8-Apr	
					DADU	3	2-May	5-Aug	
					HYDERABAD	8	24-Jan	6-Aug	
				JACOBABAD	3	24-Jan	5-Aug		
				KAMBAR	4	7-Mar	8-Aug		
				KHIBALDIA	6	2-Jan	6-Aug		
				KHIGADAP	20	8-Jan	20-Aug		
				KHIGQBAL	7	11-Apr	22-Aug		
				KHIKORANGI	7	18-Feb	23-Aug		
				KHILANDHI	6	19-Feb	26-Aug		
				KHISITE	8	3-Jan	5-Aug		
SUKKUR				7	23-Jan	7-Aug			
KHILIAQAT	6	7-Feb	9-Aug						
KHISADDAR	8	7-Jan	7-Aug						
KP TRIBAL DISTRICTS	WAZIR-S	5	22-Jan	28-May					
	KURRAM	1	15-Jan	15-Jan					
KHYBER PAKHTOONKHUWA	BANNU	7	28-Jan	1-Aug					
	DIKHAN	4	8-Jan	11-Jun					
	KOHAT	1	27-Feb	27-Feb					
	MARDAN	4	16-Mar	15-Jun					
	PESHAWAR	8	11-Jan	10-Jul					
	<b>PAK Total</b>				<b>217</b>	<b>1-Jan</b>	<b>26-Aug</b>		
SOM	VDPV2	BANADIR	HODAN	1	3-Feb	3-Feb			
<b>SOM Total</b>				<b>1</b>	<b>3-Feb</b>	<b>3-Feb</b>			
IRN	WILD	S & B	IRANSHAHR	3	22-Apr	20-May			
<b>IRN Total</b>				<b>3</b>	<b>22-Apr</b>	<b>20-May</b>			
<b>2019 Total</b>				<b>256</b>	<b>1-Jan</b>	<b>27-Aug</b>			

**Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2019 - 15/09/2019**



**Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2019 - 15/09/2019**



**Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2018 - 2019**

Year	COUNTRY	Count	First Case	Last Case
2018	AFG	21	1-Jan-18	6-Nov-18
	PAK	12	8-Mar-18	31-Dec-18
<b>2018 Total</b>		<b>33</b>	<b>1-Jan-18</b>	<b>31-Dec-18</b>
2019	AFG	16	4-Jan-19	2-Aug-19
	PAK	62	15-Jan-19	20-Aug-19
<b>2019 Total</b>		<b>78</b>	<b>4-Jan-19</b>	<b>20-Aug-19</b>

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 01/01/2019 - 15/09/2019

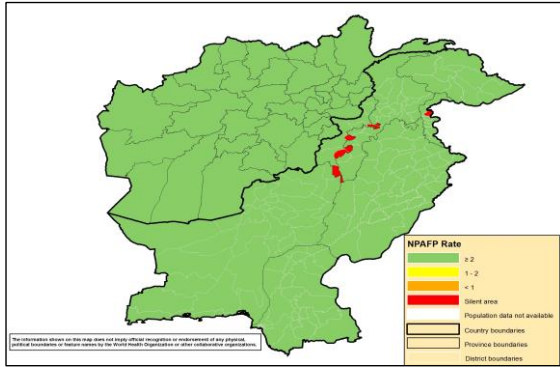


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2019 - 15/09/2019

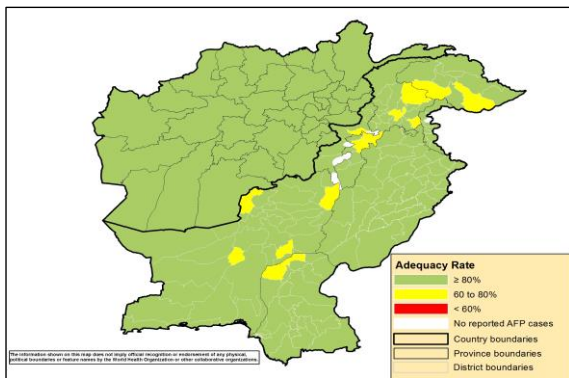
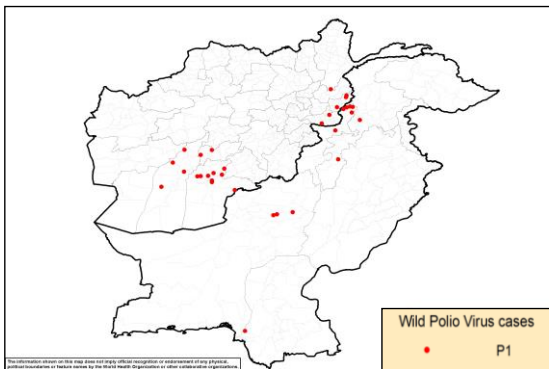
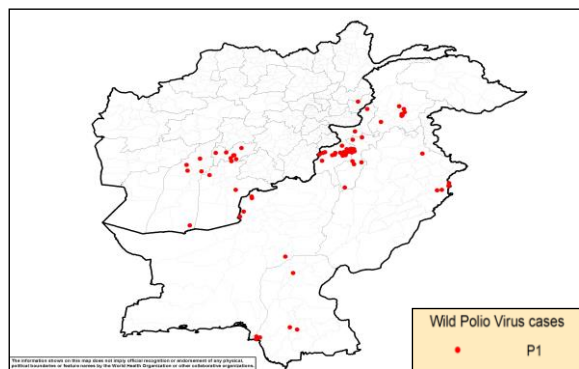


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

5(a) 01/01/2018 - 31/12/2018



5(b) 01/01/2019 - 15/09/2019



## World Health Organization – Regional Office for Eastern Mediterranean

## AFP SURVEILLANCE

Week 37, ending 15 September 2019

16-Sep-19

Number 1093

**Table 9: Wild Polio cases by district and date of onset of paralysis, Afghanistan 2018-2019**

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>
2019	URUZGAN	TIRINKOT	4	19-May-19	2-Aug-19
		CHORA	3	20-Mar-19	23-Jul-19
		SHAHID-E-HASSAS	1	25-Feb-19	25-Feb-19
	HILMAND	GARMSER	1	26-May-19	26-May-19
		MUSAQALAH	1	5-May-19	5-May-19
		NAWZAD	1	3-Apr-19	3-Apr-19
		WASHER	1	23-Mar-19	23-Mar-19
		SANGIN	1	6-Mar-19	6-Mar-19
	KUNAR	WATAPUR	1	8-May-19	8-May-19
	KANDAHAR	GHORAK	1	12-Jan-19	12-Jan-19
		SPINBOLDAK	1	4-Jan-19	4-Jan-19
<b>2019 Total</b>			<b>16</b>	<b>4-Jan-19</b>	<b>2-Aug-19</b>

**Table 10: Wild Polio cases by district and date of onset of paralysis, Pakistan 2018-2019**

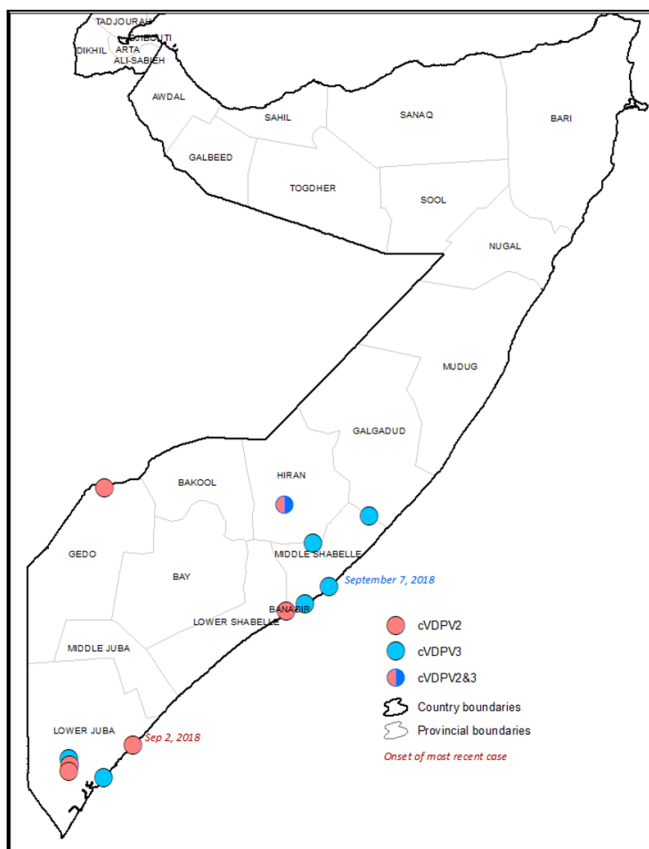
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2018	KP TRIBAL DISTRICTS	BAJOUR	5	1-Sep-18	31-Dec-18
		KHYBER	1	25-Sep-18	25-Sep-18
	KHYBER PAKHTUNKHUWA	LAKKIMRWT	1	16-Dec-18	16-Dec-18
		CHARSADA	1	1-Aug-18	1-Aug-18
	SINDH	KHIGADAP	1	22-Sep-18	22-Sep-18
	BALUCHISTAN	DUKKI	3	8-Mar-18	18-May-18
<b>2018 Total</b>			<b>12</b>	<b>8-Mar-18</b>	<b>31-Dec-18</b>
2019	KP TRIBAL DISTRICTS	WAZIR-S	1	20-Aug-19	20-Aug-19
		WAZIR-N	8	4-Apr-19	21-Jul-19
		KHYBER	1	14-Feb-19	14-Feb-19
		BAJOUR	1	18-Jan-19	18-Jan-19
	SINDH	KHIORANGI	1	20-Aug-19	20-Aug-19
		HYDERABAD	2	20-Jul-19	5-Aug-19
		KHIGIQBAL	1	29-Apr-19	29-Apr-19
		LARKANA	1	17-Apr-19	17-Apr-19
		KHILAYARI	1	25-Feb-19	25-Feb-19
		BALUCHISTAN	KABDULAH	3	9-Jun-19
		QUETTA	1	6-Jul-19	6-Jul-19
		JAFARABAD	1	28-May-19	28-May-19
	KHYBER PAKHTUNKHUWA	LAKKIMRWT	3	27-May-19	5-Aug-19
		BANNU	22	15-Jan-19	2-Aug-19
		HANGU	2	20-Jan-19	28-Jul-19
		CHARSADA	1	21-Jul-19	21-Jul-19
		TORGHAR	5	25-May-19	17-Jun-19
		SHANGLA	1	18-May-19	18-May-19
		DIKHAN	1	5-May-19	5-May-19
PUNJAB		LAHORE	4	20-Jan-19	22-Jun-19
	JHELUM	1	21-Jun-19	21-Jun-19	
<b>2019 Total</b>			<b>62</b>	<b>15-Jan-19</b>	<b>20-Aug-19</b>

**Table 11: Circulating VDPV cases and date of onset of paralysis in EMR countries by districts 2018-2019**

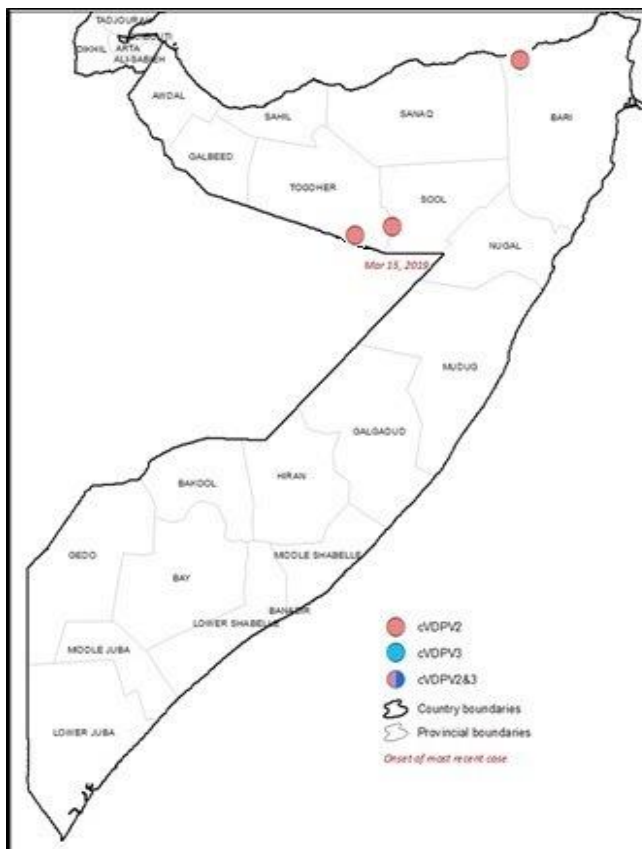
COUNTRY	YEAR	PROVINCE	DISTRICT	cVDPV2			cVDPV3			
				Count	First Case	Last Case	Count	First Case	Last Case	
SOM	2019	BARI	BOSSASO	1	08-May-19	08-May-19				
		TOGDHER	BUHODLE	1	21-Apr-19	21-Apr-19				
		SOOL	LAS ANOD	1	15-Mar-19	15-Mar-19				
	<b>Total 2019</b>				<b>3</b>	<b>15-Mar-19</b>	<b>8-May-19</b>			
	2018	LOWER JUBA	JAMAAME WEST	1	02-Sep-18	02-Sep-18				
			KISMAYO	2	29-Jul-18	30-Jul-18	2	4-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>Total 2018</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>

**Figure 6: Somalia cVDPV cases by type and district**

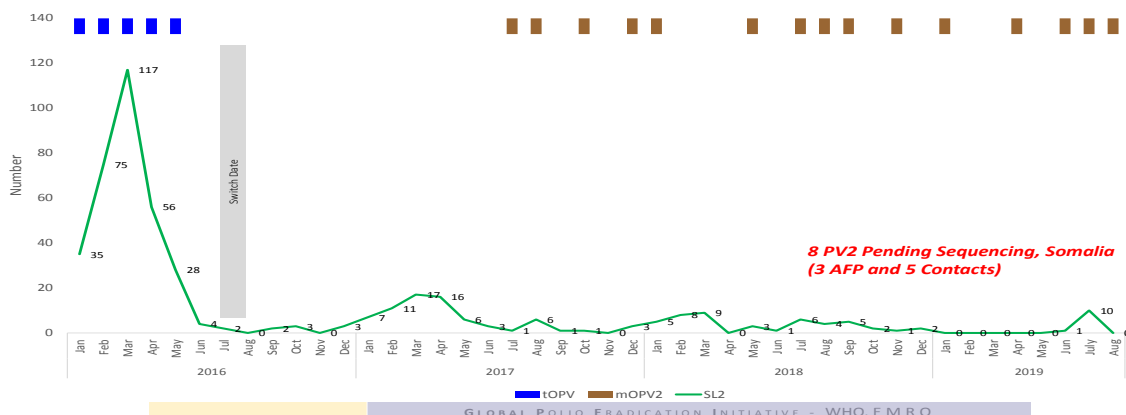
**6(a) 01/01/2018 - 31/12/2018**



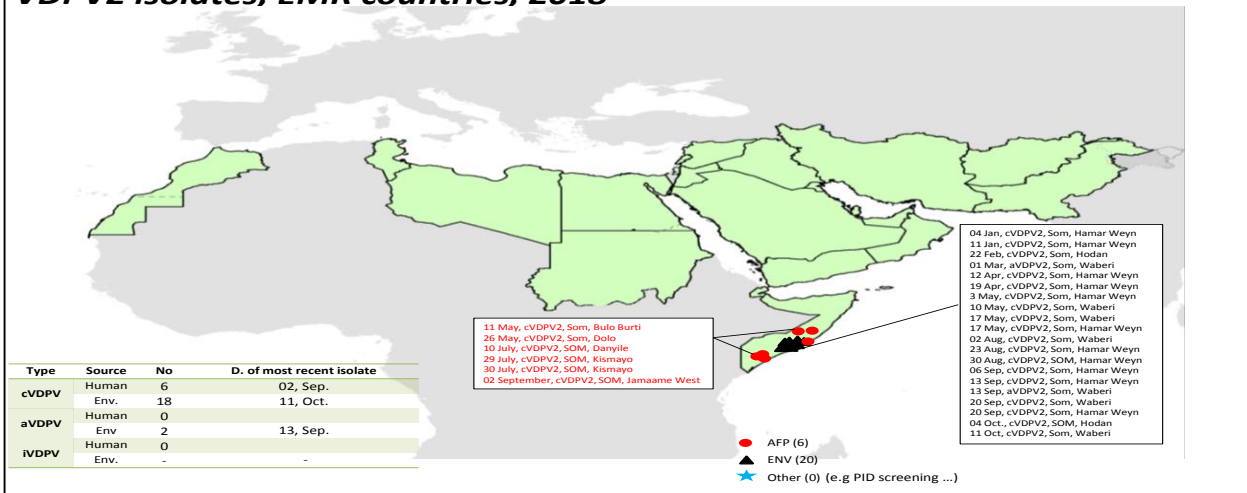
**6(b) 01/01/2019 - 15/09/2019**



Sabin like type-2 poliovirus isolates (H&E) and vaccine types used during SIAs, EMRO, 2016 to 2019



VDPV2 isolates, EMR countries, 2018



VDPV2 isolates, EMR countries, 2019

