

Highlights of Polio Fax Bulletin No. 1096 for Week 40 2019

I. Poliovirus Transmission

1. **Endemic countries (PAKISTAN & AFGHANISTAN):** Three new wild poliovirus cases were reported this week from Pakistan. Four new contacts of earlier identified wild positive index cases, 2 from Afghanistan and 2 from Pakistan. Thirteen new positive environmental samples were reported this week all from Pakistan.

a. *Human samples:* Three new wild poliovirus cases reported from Pakistan this week. Total of WPV1 cases in 2019 to date are 88 (16 from Afghanistan and 72 from Pakistan). This compares with 26 cases in 2018 in the same period (Afghanistan – 19 and Pakistan – 7).

- 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:

Three new WPV1 cases were reported this week and their details are as follows:

- Case (1): The case was reported from Karachi Orangi town, Sindh province, with date of onset 28 August 2019. The case is a 16-month old female child. The child received reportedly a total of 8 OPV doses all from supplementary immunization activities (SIAs) and none from routine. The index case was identified as wild by a positive contact.

- Case (2): The case was reported from Jaffarabad district, Balochistan province, with date of onset 13 September 2019. The case is a 15-month old male child. The child received reportedly a total of 7 OPV doses out of which 1 was from routine and 6 from SIAs.

- Case (3): The case was reported from Torghar district, KP province, with date of onset 13 September 2019. The case is a 21-month old male child. The child reportedly received 10 OPV doses out of which 3 were from routine and 7 from SIAs.

In 2019 to date, 72 WPV1 cases are reported from Pakistan. They include 42 from Khyber Pakhtunkhwa (KP) province, 11 from KP Tribal Districts (KPTD), 8 from Sindh province, 6 from Balochistan province and 5 from Punjab province. The most recent case has onset of paralysis on 13 September 2019.

Environmental samples: Thirteen new WPV1 positive environmental samples were reported this week, all from Pakistan.

- Afghanistan: In 2019 to date, there are 36 positive environmental samples with most recent positive sample collected on 27 August 2019.

- Pakistan: In 2019 to date, there are 250 positive environmental samples with most recent positive sample collected on 23 September 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 1.1 and percentage of AFP cases with adequate stool specimens of 66.7%
- Morocco has a percentage of AFP cases with adequate stool specimens of 78.9%
- Qatar has a non-polio AFP rate of 1.8
- Tunisia has a percentage of AFP cases with adequate stool specimens of 71.2%
- 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.

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 (40/19) / Ending on : 06/10/2019														
	Total AFP 2017	Total AFP 2018	Total AFP to date, 2019	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	W38 22 Sep 19	W39 29 Sep 19	W40 06 Oct 19
Afghanistan	3094	3378	2852	81	68	79	38	76	82	60	71	79	71	39	5
Bahrain	18	35	12	1	0	0	0	0	0	0	0	0	0	1	0
Djibouti	4	0	3	0	0	0	1	0	0	1	0	0	0	0	0
Egypt	1242	1246	983	23	28	15	7	23	29	25	16	28	33	25	3
Iran	820	896	711	24	17	15	25	22	17	14	16	13	10	0	
Iraq	699	1023	781	22	22	12	6	15	28	17	21	18	9		
Jordan ****	116	115	94	1	1	0	0	2	2	0	2	1	3	0	0
Kuwait	69	72	34	0	0	0	0	0	0	2	3	0	2	1	1
Lebanon ****	75	89	62	2	2	2	1	0	1	0	2	0	1	1	
Libya	88	122	73	3	2	1	1	3	9	3	1	2	2	4	1
Morocco	143	212	147	9	3	2	1	0	4	4	4	1	1		
Oman	40	28	16	0	0	0	0	1	1	0	1	0	0	1	0
Pakistan	10319	12276	10649	292	312	267	246	288	336	287	300	298	247	103	0
Palestine ****	43	44	46	0	1	1	0	1	1	1	1	1	4	0	0
Qatar	18	10	5	1	0	0	1	0	0	0	1	0	0	0	0
Saudi Arabia	276	242	131	0	0	0	0	0	0	0	0	0	0		
Somalia	345	353	283	9	8	4	7	5	7	6	5	5	15	4	0
Sudan	570	579	411	8	14	8	4	10	18	16	15	12	12	8	1
Syria ****	362	362	278	7	6	5	2	3	5	4	7	6	7	2	0
Tunisia	67	68	59	2	3	1	2	2	0	2	3	1	0	0	
U.A.E	58	40	28	0	1	1	0	1	1	2	0	0	0	0	
Yemen	713	730	564	12	9	16	8	12	10	12	12	19	7	6	
Total EMR	19179	21920	18222	497	497	429	350	464	551	456	481	484	424	195	11

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2017	Total year 2018	06/10		Confirmed polio cases by month of onset											
			2018	2019	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019	May 2019	June 2019	July 2019	August 2019	September 2019	October 2019
Afghanistan	14	21	19	16	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	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	0		
Kuwait	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	0	0	0	0	0	0	0		
Pakistan	8	12	7	72	0	4	4	2	0	11	11	16	12	14	2	
Palestine ****	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		
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					
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	0	0	
U.A.E	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
Yemen	0	0	0	0					0							
Total EMR	22	33	26	88	1	4	6	3	3	12	16	17	14	15	2	0

**** 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 & 2019 up to Week (40/19) / Ending on : 06/10/2019

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		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	3378	21	0	0	3357	0	16.6	0	0	93.8	21	0	2852	16	0	232	2604	0	18.3	37	7	94.4	16	0	06/10/2019
Bahrain	35	0	0	0	35	0	12.1	0	0	97.1	0	0	12	0	0	12	0	0	5.4	10	10	91.7	0	0	06/10/2019
Djibouti	0	0	0	0	0	0	0.0	0	0		0	0	3	0	0	3	0	0	1.1	1	0	66.7	0	0	06/10/2019
Egypt	1246	0	0	2	1243	1	3.2	2	0	93.2	0	0	983	0	0	116	867	0	3.4	4	0	88.9	0	0	03/10/2019
Iran	896	0	0	0	894	2	4.6	0	0	97.0	0	0	711	0	0	32	678	1	4.8	0	0	96.5	0	0	05/10/2019
Iraq	1023	0	0	0	1023	0	6.7	0	0	89.9	0	0	781	0	0	73	708	0	6.7	12	0	94.9	0	0	27/09/2019
Jordan	115	0	0	0	115	0	4.1	0	0	100.0	0	0	94	0	0	5	89	0	4.4	0	0	100.0	0	0	06/10/2019
Kuwait	72	0	0	0	72	0	8.1	0	0	90.3	0	0	34	0	0	3	31	0	5.0	0	0	82.4	0	0	06/10/2019
Lebanon	89	0	0	0	89	0	4.8	0	0	96.6	0	0	62	0	0	12	50	0	4.4	6	0	85.5	0	0	04/10/2019
Libya	122	0	0	0	122	0	4.9	0	0	96.7	0	0	73	0	0	16	57	0	3.8	1	0	98.6	0	0	05/10/2019
Morocco	212	0	0	0	212	0	2.4	0	0	77.8	0	0	147	0	0	42	105	0	2.2	26	5	78.9	0	0	27/09/2019
Oman	28	0	0	0	28	0	3.2	0	0	92.9	0	0	16	0	0	1	15	0	2.3	0	0	87.5	0	0	06/10/2019
Pakistan	12276	12	1	0	12263	0	15.7	0	0	87.0	12	0	10649	72	0	861	9716	0	17.7	153	1	88.2	72	0	06/10/2019
Palestine	44	0	0	0	44	0	2.3	0	0	90.9	0	0	46	0	0	9	37	0	3.2	0	0	97.8	0	0	06/10/2019
Qatar	10	0	0	0	10	0	2.8	0	0	100.0	0	0	5	0	0	3	2	0	1.8	0	0	80.0	0	0	06/10/2019
Saudi Arabia	242	0	0	0	242	0	3.0	0	0	95.9	0	0	131	0	0	37	94	0	2.1	37	7	90.8	0	0	26/09/2019
Somalia	353	0	0	0	341	12	5.5	0	0	97.7	0	0	283	0	0	30	250	3	5.8	2	2	95.4	0	0	06/10/2019
Sudan	579	0	0	0	579	0	3.2	0	0	97.2	0	0	411	0	0	26	385	0	3.0	0	0	97.8	0	0	03/10/2019
Syria	362	0	0	0	362	0	4.7	0	0	87.0	0	0	278	0	0	19	259	0	4.7	2	0	86.0	0	0	03/10/2019
Tunisia	68	0	0	0	68	0	2.6	0	0	80.9	0	0	59	0	0	0	58	1	2.8	0	0	71.2	0	0	04/10/2019
U.A.E	40	0	0	0	40	0	3.2	0	0	97.5	0	0	28	0	0	11	17	0	2.9	3	0	85.7	0	0	03/10/2019
Yemen	730	0	0	140	590	0	5.2	140	129	91.6	0	0	564	0	0	458	106	0	5.3	310	287	89.5	0	0	05/10/2019
EMR	21920	33	1	142	21729	15	8.7	142	129	89.8	33	0	18222	88	0	2001	16128	5	9.5	604	319	90.1	88	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 <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	853	8	0	36	152	19
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	384	0	0	7	40	27
IRN	145	0	0	3	6	0	129	0	0	4	6	0
IRQ	811	0	0	22	93	9	416	0	0	7	14	33
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	24	0	0	0	3	2
LIB	1	0	0	0	0	0	3	0	0	0	0	0
MOR	161	0	0	0	9	9	59	0	0	3	1	17
OMA	70	0	0	2	16	0	43	0	0	2	16	0
PAK	4200	3	0	207	882	0	3955	9	0	156	702	198
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	0	855	0	1	27	90	93
SUD	350	0	0	3	24	88	274	0	0	0	25	49
SYR	670	0	0	8	17	0	609	0	0	10	35	35
TUN	1	0	0	0	0	0	18	0	0	0	2	0
UAE	0	0	0	0	0	0	0	0	0	0	0	0
YEM	1559	0	0	0	0	1460	359	0	0	0	0	359
EMR	10760	7	10	360	1471	1610	7981	17	1	252	1086	832

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	8	17/Aug/19
	Pakistan	9	19/Sep/19
2019 Total		17	19/Sep/19
2018	Afghanistan	4	7/Aug/18
	Pakistan	3	12/Oct/18
2018 Total		7	12/Oct/18

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	HILMAND	MUSAQALAH	1	5-Jun-19	5-Jun-19
		HILMAND	SANGIN	1	6-Mar-19	6-Mar-19
	PAK	SINDH	KHIORANGI	1	28-Aug-19	28-Aug-19
		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	
2019 Total				6	06-Mar-19	28-Aug-19
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
2018 Total				4	15-Apr-18	01-Sep-18

Table 5: Laboratory investigation of AFP cases with paralysis onset in 2019 up to Week (40/2019) / Ending on : (06/10/2019)

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	2792	207	22	435	2023	105		13	162									1	1	1	1	14%	95%	100%	98%	05/10/2019
Bahrain	NPL Oman / CDC																										30/09/2019
Djibouti	NPL Kenya / CDC	3					3																				06/10/2019
Egypt***	RRL Egypt	951	33	5	89	753	48	23		14									8	3			10%	95%	100%	99%	03/10/2019
Iran	NPL Iran / CDC	737	11		17	679	23	7		2	1												3%	100%	100%	99%	05/10/2019
Iraq	RRL Egypt	824	11		105	623	15	70		5													12%	100%	100%	69%	26/09/2019
Jordan	NPL Jordan / RRL EGYPT	95			12	81	2	1															13%	99%			06/10/2019
Kuwait	RRL Kuwait / RIVM	37			2	26	3	6															7%	86%		100%	03/10/2019
Lebanon	NPL Jordan / RRL EGYPT	58	1		6	50	1																10%	100%	100%	0%	06/10/2019
Libya	RRL Tunisia / RIVM	69			1	66	2																1%	99%		99%	04/10/2019
Morocco	NPL Morocco / RRL Tunisia	143	1		2	132	3	5															1%	100%	100%	96%	27/09/2019
Oman	NPL Oman / CDC	15			3	11		1															27%	100%		100%	30/09/2019
Pakistan	RRL Pakistan	10404	393	43	1747	7756	451	5	68	231													15%	96%	99%	97%	05/10/2019
Palestine & UNRWA		46			6	35	3	2															15%	38%		100%	06/10/2019
Qatar	NPL Oman / CDC	5				5																	0%	100%		100%	30/09/2019
Saudi Arabia	NPL Saudi Arabia / CDC	169	4		1	157		7															1%	95%	100%	100%	26/09/2019
Somalia	NPL Kenya / CDC	283	15		52	187	15	14		4			6	3									21%	14%		98%	06/10/2019
Sudan	NPL Sudan / RRL Egypt	409	6		56	322	24	1		5													13%	65%	100%	63%	06/10/2019
Syria	NPL Syria / RRL Egypt	268	12		15	228	9	4		5													7%	100%	100%	50%	03/10/2019
Tunisia	RRL Tunisia	55			3	52																	7%	100%		98%	04/10/2019
U.A.E	NPL Oman / CDC	25			3	18		4															14%	100%		43%	30/09/2019
Yemen	NPL Kenya / CDC																										05/10/2019
Total EMR 2019		17388	694	70	2555	13204	708	149	81	428	1		6	3					2	14	5	6	13%	94%	99%	97%	
Total EMR 2018		20746	902	90	3513	16220		17	29	590	3		6	6 #						22	1	3	14%	92%	99%	97%	

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

** This indicator reflects surveillance and laboratory activities

Somalia in 2018 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	2019
AFG	NEGATIVE	129	183	274	253	134
	PENDING					21
	WILD	20	2	42	83	36
AFG Total		149	185	316	336	191
EGY	NEGATIVE	493	528	522	540	547
	PENDING	2				19
	VDPV2	3	1			
EGY Total		498	529	522	540	566
JOR	NEGATIVE		2	32	36	24
	PENDING					3
JOR Total			2	32	36	27
LEB	NEGATIVE		4	27	45	29
	PENDING					5
LEB Total			4	27	45	34
PAK	NEGATIVE	347	462	523	534	281
	PENDING					22
	WILD	79	59	105	139	250
	WILD & VDPV2	5	3	1		
	VDPV2	8	5	4		
PAK Total		439	529	633	673	553
SOM	NEGATIVE		34	181	39	
	PENDING					4
	VDPV2			2	20	1
	VDPV3					12
SOM Total			36	213	44	
SYR	NEGATIVE		4	102	121	
	PENDING					15
SYR Total			4	102	136	
IRN	NEGATIVE		6	54	55	
	WILD					3
IRN Total			6	54	58	
KUW	NEGATIVE				3	
	PENDING					5
KUW Total					3	5
SUD	NEGATIVE				15	32
	PENDING					13
SUD Total					15	45
Grand Total		1086	1249	1576	2017	1659

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/Jan	25/Jan		
				KABUL	3	26/Jan	26/Jan		
				KANDAHAR	42	8/Jan	26/Dec		
				KHOST	1	25/Sep	25/Sep		
				KUNAR	2	24/Apr	25/Sep		
				NANGARHAR	3	28/Jan	25/Oct		
				JALALABAD	19	27/Jan	26/Dec		
					83	8/Jan	26/Dec		
				AFG Total					
	PAK	WILD	BALOCHISTAN	LORALAI	2	17/Mar	17/Aug		
				PISHIN	1	2/Dec	2/Dec		
				QUETTA	13	13/Jan	20/Dec		
				KABDULAH	8	1/Jan	15/Dec		
				ISLAMABAD	7	10/Jan	10/Nov		
				PUNJAB	12	11/Jan	18/Dec		
				LAHORE	15	10/Jan	14/Dec		
				RAWALPINDI	2	12/Jan	12/Sep		
				DGKHAN	1	9/Jan	9/Jan		
				HYDERABAD	3	12/Jan	12/Sep		
				JACOBABAD	3	7/Apr	9/Jul		
				KAMBAR	2	1/Aug	4/Sep		
				KHIBALDIA	15	15/Jan	11/Dec		
				KHIGADAP	1	13/Sep	13/Sep		
				KHIGORANGI	1	14/Dec	14/Dec		
				KHILANDHI	3	10/Jan	30/Jul		
				KHISITE	2	1/Jan	3/Sep		
				SUKKUR	2	8/Jan	9/Nov		
				KHILAQAT	2	7/Mar	7/Nov		
				KHISADDAR	1	10/Sep	10/Sep		
				KP TRIBAL DISTRICTS	5	19/May	25/Oct		
				WAZIR-S	2	26/Nov	27/Dec		
KHYBER PAKHTUNKHWA				4	31/Mar	27/Dec			
BANNU				5	5/Jan	27/Sep			
KOHAT				2	15/Oct	15/Nov			
MARDAN				2	18/Sep	18/Oct			
NOWSHERA				23	10/Jan	26/Dec			
PAK Total						139	1/Jan	27/Dec	
SOM				VDPV2	BANADIR	HAMAR WEYN	11	4/Jan	20/Sep
						HODAN	7	22/Jan	4/Oct
SOM				VDPV3	BANADIR	WABERI	2	1/Mar	11/Oct
						HAMAR WEYN	6	11/Jan	5/Apr
SOM	VDPV3	BANADIR	HODAN	1	1/Jan	1/Jan			
			WABERI	5	8/Mar	23/Aug			
SOM Total			32	4/Jan	11/Oct				
2018 Total				254	1/Jan	27/Dec			
2019	AFG	WILD	HILMAND	LASHKARGAH	5	23/Jan	26/Aug		
				NAHR-E-SARAJ	4	6/Jan	26/Aug		
				KANDAHAR	21	6/Jan	26/Aug		
				NANGARHAR	6	26/Jan	27/Aug		
	AFG Total			36	6/Jan	27/Aug			
	PAK	WILD	BALOCHISTAN	KHUZZDAR	1	20/Mar	20/Mar		
				LORALAI	1	17/Mar	17/Mar		
				PISHIN	4	2/Jan	2/Sep		
				QUETTA	27	1/Jan	20/Sep		
				DBGTI	2	19/Aug	19/Sep		
				KABDULAH	10	1/Jan	1/Sep		
				CDA	3	12/Apr	21/Aug		
				ISLAMABAD	4	3/Jan	3/Sep		
				PUNJAB	42	5/Jan	18/Sep		
				LAHORE	5	18/Jan	18/Sep		
				MULTAN	9	10/Jan	22/Jul		
				RAWALPINDI	1	28/Aug	28/Aug		
				BAHAWALPUR	2	8/Apr	12/Sep		
				DGKHAN	4	2/May	11/Sep		
				HYDERABAD	9	24/Jan	12/Sep		
				JACOBABAD	4	24/Jan	17/Sep		
				KAMBAR	5	7/Mar	17/Sep		
				KHIBALDIA	7	2/Jan	12/Sep		
				KHIGADAP	23	8/Jan	19/Sep		
				KHIGORANGI	9	11/Apr	23/Sep		
				KHILANDHI	7	18/Jan	23/Aug		
				KHISITE	6	19/Jan	26/Aug		
				SUKKUR	9	3/Jan	11/Sep		
				KHILAQAT	9	23/Jan	14/Sep		
				KHISADDAR	7	7/Jan	13/Sep		
				KP TRIBAL DISTRICTS	9	7/Jan	17/Sep		
				WAZIR-S	5	22/Jan	28/May		
KURRAM				1	15/Jan	15/Jan			
KHYBER PAKHTUNKHWA				7	28/Jan	1/Aug			
BANNU				4	8/Jan	11/Jan			
DIRHAN				1	27/Jan	27/Jan			
KOHAT				4	16/Mar	15/Jan			
MARDAN	9	11/Jan	18/Sep						
PESHAWAR	250	1/Jan	23/Sep						
PAK Total			250	1/Jan	23/Sep				
SOM	VDPV2	BANADIR	HODAN	1	3/Jan	3/Jan			
SOM Total			1	3/Jan	3/Jan				
IRN	WILD	S & B	IRANSHAHR	3	22/Apr	20/May			
IRN Total			3	22/Apr	20/May				
2019 Total				290	1/Jan	23/Sep			

Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2019 - 06/10/2019

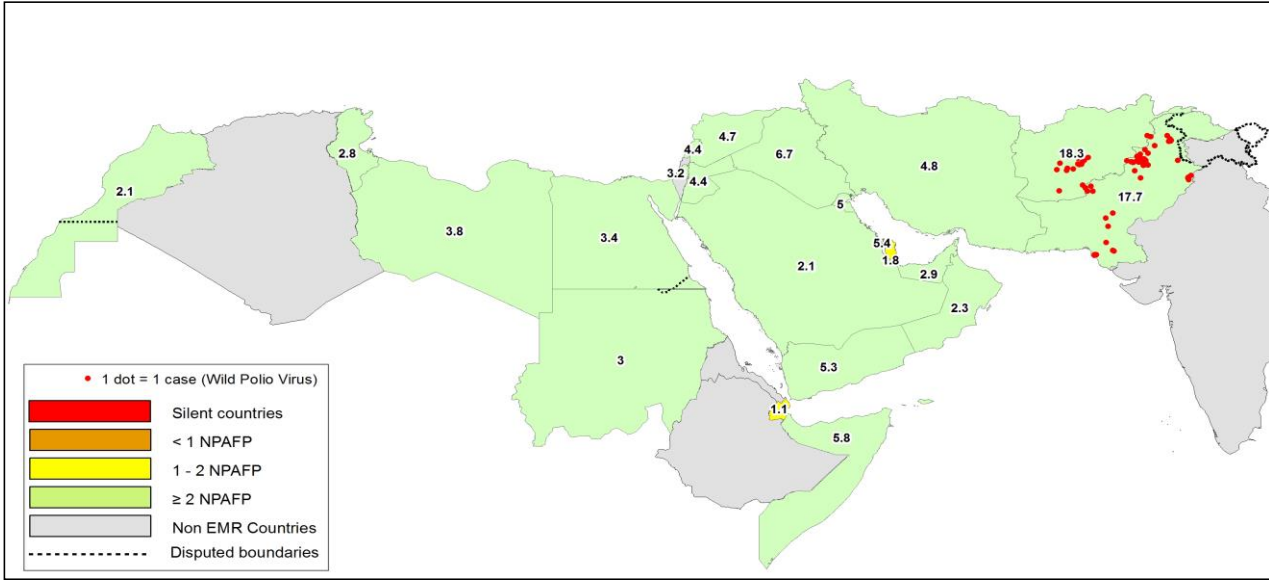


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2019 - 06/10/2019

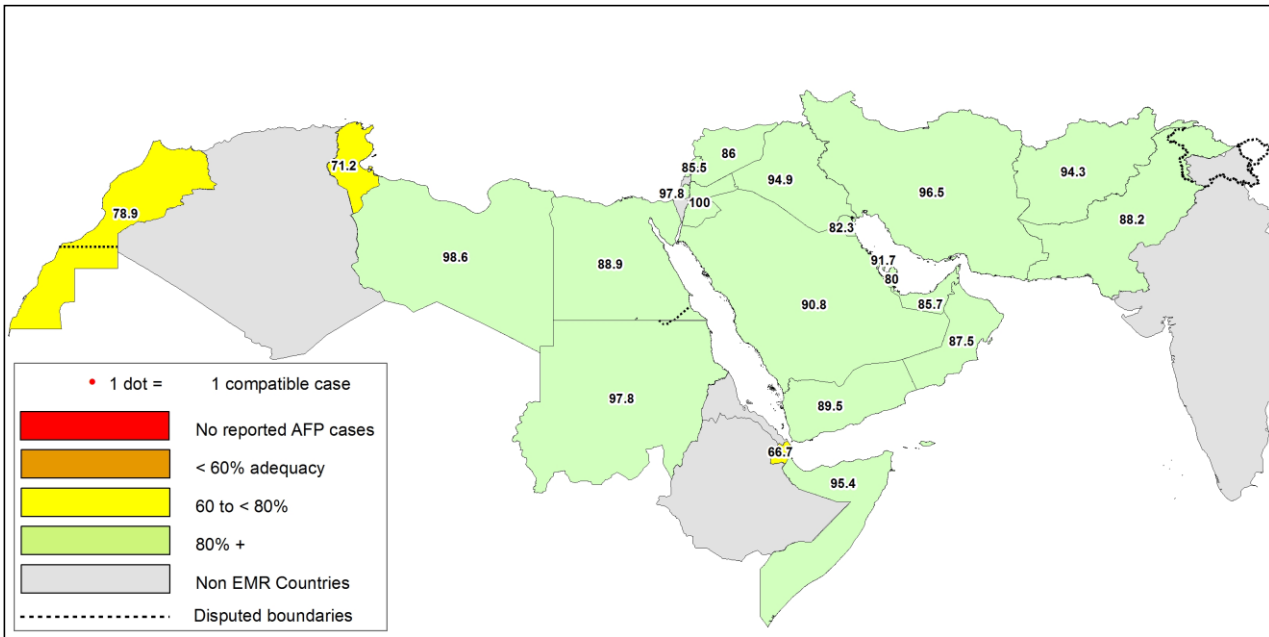


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2018 - 2019

Year	COUNTRY	Count	First Case	Last Case
2018	AFG	21	1-Jan-18	6-Nov-18
	PAK	12	8-Mar-18	31-Dec-18
2018 Total		33	1-Jan-18	31-Dec-18
2019	AFG	16	4-Jan-19	2-Aug-19
	PAK	72	15-Jan-19	13-Sep-19
2019 Total		88	4-Jan-19	13-Sep-19

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 - 06/10/2019

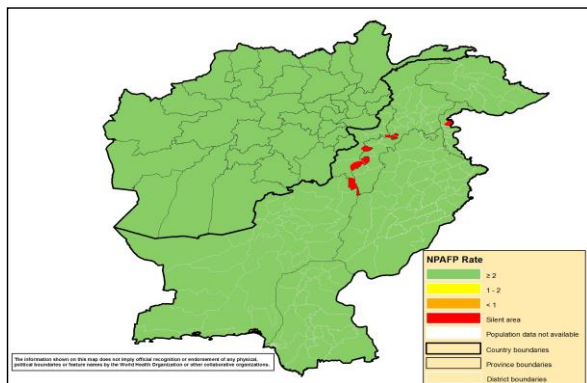


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2019 - 06/10/2019

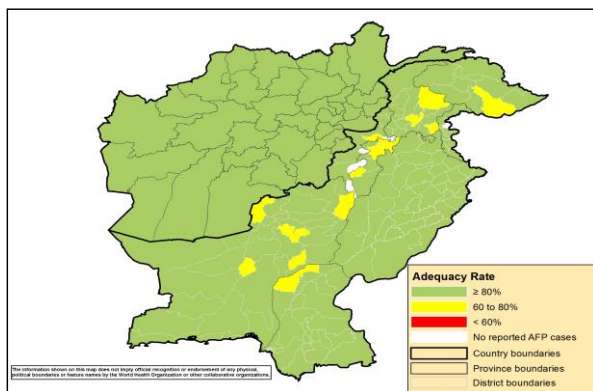
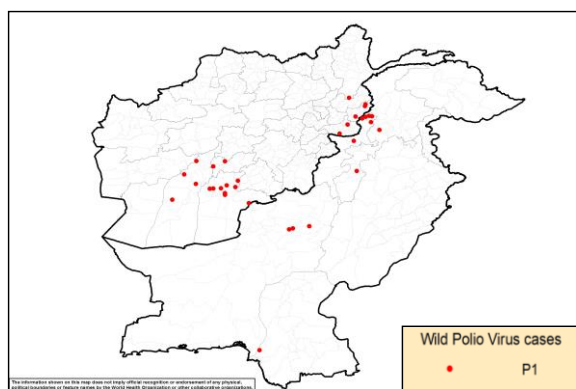
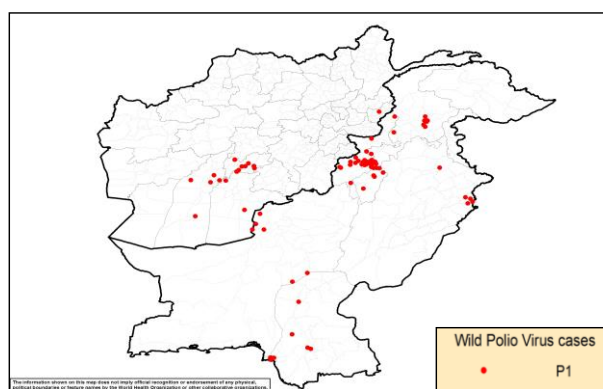


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

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



5(b) 01/01/2019 - 06/10/2019



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 40, ending 6 October 2019

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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	
2018 Total			21	1-Jan-18	6-Nov-18
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
	KANDAHAR	GHORAK	1	12-Jan-19	12-Jan-19
		SPINBOLDAK	1	4-Jan-19	4-Jan-19
2019 Total			16	4-Jan-19	2-Aug-19

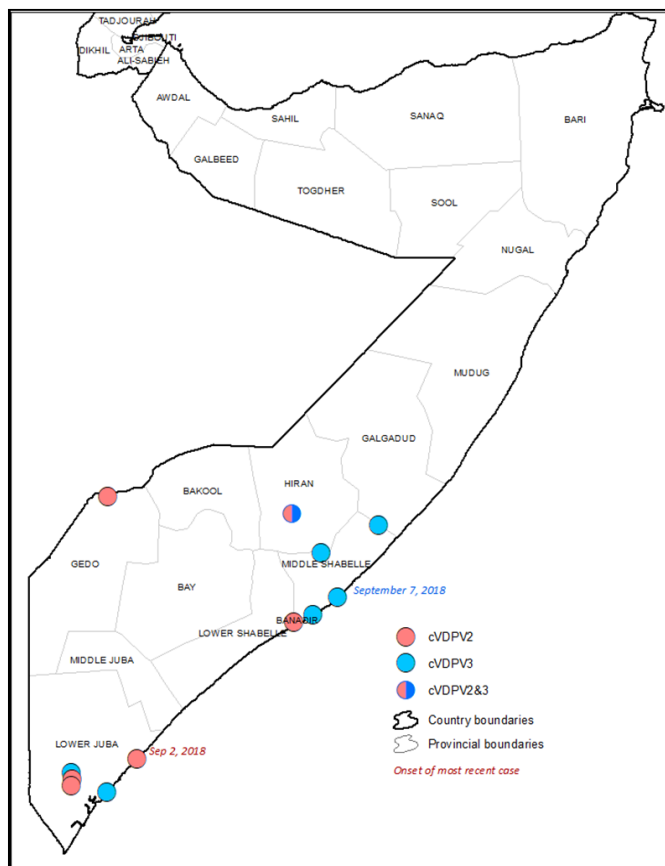
Table 10: Wild Polio cases by district and date of onset of paralysis, Pakistan 2018-2019					
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2018	KP TRIBAL DISTRICTS	BAJOUR	5	1-Sep-18	31-Dec-18
		KHYBER	1	25-Sep-18	25-Sep-18
	KHYBER PAKHTUNKHWA	LAKKIMRWT	1	16-Dec-18	16-Dec-18
		CHARSADA	1	1-Aug-18	1-Aug-18
	SINDH	KHIGADAP	1	22-Sep-18	22-Sep-18
	BALUCHISTAN	DUKKI	3	8-Mar-18	18-May-18
2018 Total			12	8-Mar-18	31-Dec-18
2019	BALUCHISTAN	JAFARABAD	2	28-May-19	13-Sep-19
		KABDULAH	3	9-Jun-19	8-Aug-19
		QUETTA	1	6-Jul-19	6-Jul-19
	KHYBER PAKHTUNKHWA	TORGHAR	7	25-May-19	13-Sep-19
		LAKKIMRWT	7	27-May-19	28-Aug-19
		BANNU	23	15-Jan-19	19-Aug-19
		HANGU	2	20-Jan-19	28-Jul-19
		CHARSADA	1	21-Jul-19	21-Jul-19
		SHANGLA	1	18-May-19	18-May-19
		DIKHAN	1	5-May-19	5-May-19
		SINDH	KHIORANGI	2	20-Aug-19
	JAMSHORO		1	23-Aug-19	23-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
	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
PUNJAB	LAHORE	4	20-Jan-19	22-Jun-19	
	JHELUM	1	21-Jun-19	21-Jun-19	
2019 Total			72	15-Jan-19	13-Sep-19

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

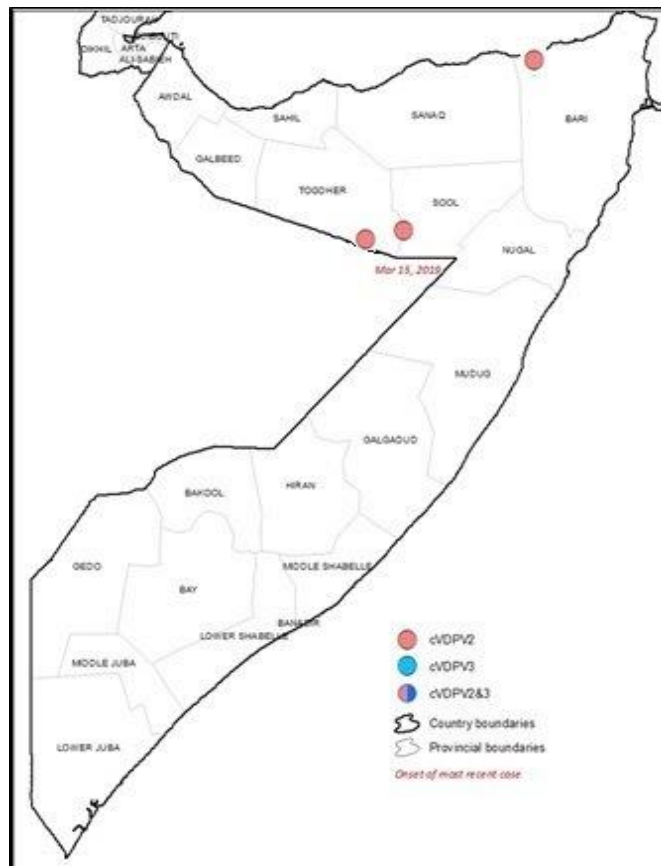
COUNTRY	YEAR	PROVINCE	DISTRICT	cVDPV2			cVDPV3			
				Count	First Case	Last Case	Count	First Case	Last Case	
SOM	2019	BARI	BOSSASO	1	08-May-19	08-May-19				
		TOGDHER	BUHODLE	1	21-Apr-19	21-Apr-19				
		SOOL	LAS ANOD	1	15-Mar-19	15-Mar-19				
	Total 2019				3	15-Mar-19	8-May-19			
	2018	LOWER JUBA	JAMAAME 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					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					
Total 2018				6	11-May-18	2-Sep-18	7	11-May-18	7-Sep-18	

Figure 6: Somalia cVDPV cases by type and district

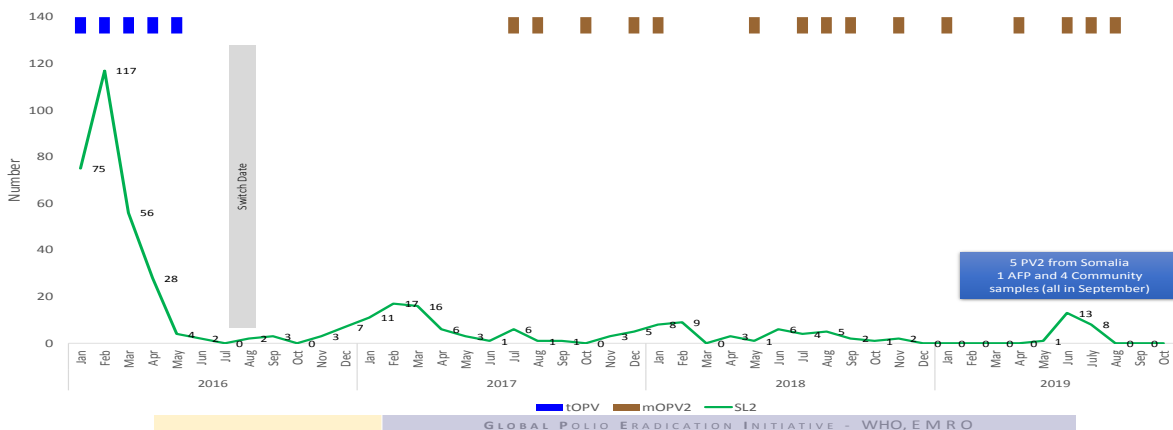
6(a) 01/01/2018 - 31/12/2018



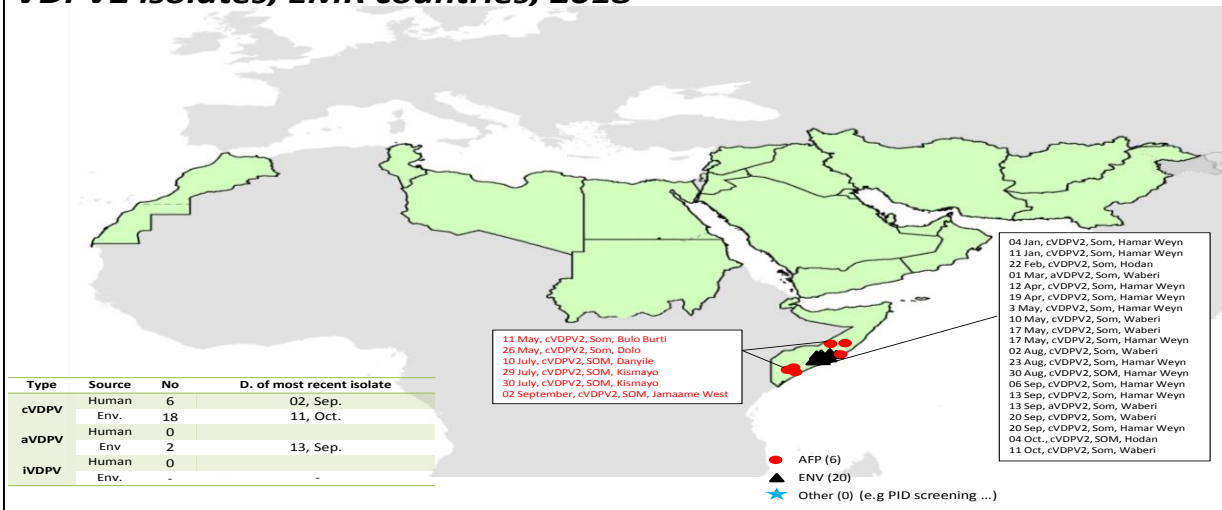
6(b) 01/01/2019 - 06/10/2019



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

