

Highlights of Polio Fax Bulletin No. 1097 for Week 41 2019

I. Poliovirus Transmission

1. **Endemic countries (PAKISTAN & AFGHANISTAN):** No new wild poliovirus cases reported this week. Two new positive environmental samples were reported this week both from Pakistan.
 - a. *Human samples:* No new wild poliovirus cases reported this week. Total WPV1 cases in 2019 to date are 88 (16 from Afghanistan and 72 from Pakistan). This compares with 28 cases in 2018 in the same period (Afghanistan – 20 and Pakistan – 8).

- **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.

Advance notification of a new wild poliovirus type-1 (WPV1) from Khogyani district, Nangarhar province, with date of onset 18th September 2019. Details of the new WPV1 case will be shared in the next week polio fax bulletin.

- **Pakistan:**

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 252 positive environmental samples with most recent positive sample collected on 25 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 71.7%
- 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 (41/19) / Ending on : 13/10/2019														
	Total AFP 2017	Total AFP 2018	Total AFP to date, 2019	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	W41 13 Oct 19
Afghanistan	3094	3378	2890	68	79	38	76	81	60	71	79	72	49	31	1
Bahrain	18	35	12	0	0	0	0	0	0	0	0	0	1	0	
Djibouti	4	0	3	0	0	1	0	0	1	0	0	0	0	0	
Egypt	1242	1246	988	28	15	7	23	29	25	16	28	33	27	6	
Iran	820	896	730	17	15	25	22	17	14	18	19	17	2	2	
Iraq	699	1023	835	22	12	6	15	28	18	21	21	20	23	15	1
Jordan ****	116	115	96	1	0	0	2	2	0	2	1	4	0	1	
Kuwait	69	72	34	0	0	0	0	0	2	3	0	2	1	1	
Lebanon ****	75	89	64	2	2	1	0	1	0	2	0	1	1	2	
Libya	88	122	74	2	1	1	3	9	3	1	2	2	4	2	
Morocco	143	212	147	3	2	1	0	4	4	4	1	1			
Oman	40	28	16	0	0	0	1	1	0	1	0	0	1	0	
Pakistan	10319	12276	10993	312	267	246	288	339	295	302	311	288	249	126	2
Palestine ****	43	44	46	1	1	0	1	1	1	1	1	4	0	0	
Qatar	18	10	5	0	0	1	0	0	0	1	0	0	0	0	
Saudi Arabia	276	242	157	1	2	1	1	5	1	0	0	0	0	0	
Somalia	345	353	283	8	4	7	5	7	6	5	5	15	4	0	
Sudan	570	579	426	14	8	4	10	18	16	15	12	12	16	8	
Syria ****	362	362	281	6	5	2	3	5	4	7	6	7	2	3	
Tunisia	67	68	60	3	1	2	2	0	2	3	1	0	0	0	
U.A.E	58	40	29	1	1	0	1	1	2	0	0	0	1	0	0
Yemen	713	730	583	9	16	8	12	10	12	12	19	8	16		
Total EMR	19179	21920	18752	498	431	351	465	558	466	485	506	486	397	205	4

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2017	Total year 2018	13/10		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	20	16	1	0	2	1	3	1	5	1	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	8	12	8	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	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	
Total EMR	22	33	28	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 (41/19) / Ending on : 13/10/2019

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	2890	16	0	204	2670	0	18.1	38	7	94.4	16	0	10/10/2019
Bahrain	35	0	0	0	35	0	12.1	0	0	97.1	0	0	12	0	0	12	0	0	5.3	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	1.0	1	0	66.7	0	0	06/10/2019
Egypt	1246	0	0	0	1245	1	3.2	0	0	93.2	0	0	988	0	0	103	885	0	3.3	6	0	90.6	0	0	10/10/2019
Iran	896	0	0	0	894	2	4.6	0	0	97.0	0	0	730	0	0	27	702	1	4.9	0	0	96.6	0	0	12/10/2019
Iraq	1023	0	0	0	1023	0	6.7	0	0	89.9	0	0	835	0	0	91	744	0	7.0	13	0	94.6	0	0	11/10/2019
Jordan	115	0	0	0	115	0	4.1	0	0	100.0	0	0	96	0	0	3	93	0	4.4	0	0	100.0	0	0	10/10/2019
Kuwait	72	0	0	0	72	0	8.1	0	0	90.3	0	0	34	0	0	3	31	0	4.9	0	0	82.4	0	0	10/10/2019
Lebanon	89	0	0	0	89	0	4.8	0	0	96.6	0	0	64	0	0	11	53	0	4.4	7	0	84.4	0	0	11/10/2019
Libya	122	0	0	0	122	0	4.9	0	0	96.7	0	0	74	0	0	10	64	0	3.8	1	0	98.6	0	0	12/10/2019
Morocco	212	0	0	0	212	0	2.4	0	0	77.8	0	0	147	0	0	42	105	0	2.1	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	2.2	0	0	87.5	0	0	06/10/2019
Pakistan	12276	12	1	0	12263	0	15.7	0	0	87.0	12	0	10993	72	0	937	9984	0	17.9	175	1	88.1	72	0	12/10/2019
Palestine	44	0	0	0	44	0	2.3	0	0	90.9	0	0	46	0	0	9	37	0	3.1	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	10/10/2019
Saudi Arabia	242	0	0	0	242	0	3.0	0	0	95.9	0	0	157	0	0	32	125	0	2.5	19	7	89.8	0	0	10/10/2019
Somalia	353	0	0	0	341	12	5.5	0	0	97.7	0	0	283	0	0	30	250	3	5.7	3	3	95.4	0	0	06/10/2019
Sudan	579	0	0	0	579	0	3.2	0	0	97.2	0	0	426	0	0	28	398	0	3.0	0	0	97.9	0	0	10/10/2019
Syria	362	0	0	0	362	0	4.7	0	0	87.0	0	0	281	0	0	16	265	0	4.6	2	0	86.1	0	0	11/10/2019
Tunisia	68	0	0	0	68	0	2.6	0	0	80.9	0	0	60	0	0	0	59	1	2.8	0	0	71.7	0	0	10/10/2019
U.A.E	40	0	0	0	40	0	3.2	0	0	97.5	0	0	29	0	0	12	17	0	3.0	5	0	86.2	0	0	13/10/2019
Yemen	730	0	0	140	590	0	5.2	140	129	91.6	0	0	583	0	0	477	106	0	5.3	336	312	89.5	0	0	12/10/2019
EMR	21920	33	1	140	21731	15	8.7	140	129	89.8	33	0	18752	88	0	2054	16605	5	9.5	642	345	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	# OF CONTACTS	2018					# OF CONTACTS	2019				
		LAB RESULTS						LAB RESULTS				
		WILD	VDPV	SL	NPEV	PENDING		WILD	VDPV	SL	NPEV	PENDING
AFG	1009	4	0	52	217	0	888	8	0	36	157	30
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	390	0	0	7	43	24
IRN	145	0	0	3	6	0	129	0	0	4	6	0
IRQ	811	0	0	22	93	9	438	0	0	7	14	40
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	4105	9	0	158	729	206
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	285	0	0	0	25	55
SYR	670	0	0	8	17	0	615	0	0	10	35	27
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	636	362	0	0	0	0	161
EMR	10760	7	10	360	1471	786	8214	17	1	254	1121	655

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

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Table 5: Laboratory investigation of AFP cases with paralysis onset in 2019 up to Week (41/2019) / Ending on : (13/10/2019)

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	2854	213	22	448	2085	86		13	164						150		1	1	1	3	14%	95%	100%	98%	10/10/2019
Bahrain	NPL Oman / CDC																									07/10/2019
Djibouti	NPL Kenya / CDC	3					3																			06/10/2019
Egypt***	RRL Egypt	974	34	5	92	790	47	6	14							19		8	3			10%	96%	100%	99%	10/10/2019
Iran	NPL Iran / CDC	737	11		17	679	9	21	2	1						8						3%	100%	100%	99%	05/10/2019
Iraq	RRL Egypt	890	11		106	670	58	45	5							9						12%	100%	100%	69%	10/10/2019
Jordan	NPL Jordan / RRL EGYPT	96			13	81	2	1														14%	100%			10/10/2019
Kuwait	RRL Kuwait / RIVM	39			2	29	2	6														7%	87%		100%	10/10/2019
Lebanon	NPL Jordan / RRL EGYPT	58	1		6	51										1						10%	100%	100%	0%	10/10/2019
Libya	RRL Tunisia / RIVM	69			1	66		2														1%	99%		99%	04/10/2019
Morocco	NPL Morocco / RRL Tunisia	153	1		3	142	7									1						2%	100%	100%	96%	11/10/2019
Oman	NPL Oman / CDC	16			3	11	1	1														27%	100%		100%	07/10/2019
Pakistan	RRL Pakistan	10739	395	43	1791	7999	495	8	68	232								5	1		5	15%	97%	99%	97%	12/10/2019
Palestine & UNRWA		46			6	35	3	2														15%	38%		100%	06/10/2019
Qatar	NPL Oman / CDC	5				5																0%	100%		100%	07/10/2019
Saudi Arabia	NPL Saudi Arabia / CDC	176	4		1	163	6	2								4						1%	95%	100%	100%	10/10/2019
Somalia	NPL Kenya / CDC	283	15		52	187	3	26	4			6	3			4				1		21%	14%		98%	06/10/2019
Sudan	NPL Sudan / RRL Egypt	424	6		57	334	23	4	5							2						13%	66%	100%	63%	10/10/2019
Syria	NPL Syria / RRL Egypt	272	12		16	234	10		5							9						7%	100%	100%	54%	10/10/2019
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%	07/10/2019
Yemen	NPL Kenya / CDC																									12/10/2019
Total EMR 2019		17914	703	70	2620	13631	756	127	81	431	1	6	3			433		1	14	5	9	13%	95%	99%	97%	
Total EMR 2018		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 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	140
	PENDING					15
	WILD	20	2	42	83	36
AFG Total		149	185	316	336	191
EGY	NEGATIVE	493	528	522	540	551
	PENDING	2				32
	VDPV2	3	1			
EGY Total		498	529	522	540	583
JOR	NEGATIVE		2	32	36	26
	PENDING					1
JOR Total			2	32	36	27
LEB	NEGATIVE		4	27	45	29
	PENDING					7
LEB Total			4	27	45	36
PAK	NEGATIVE	347	462	523	534	287
	PENDING					26
	WILD	79	59	105	139	252
	WILD & VDPV2	5	3	1		
	VDPV2	8	5	4		
PAK Total		439	529	633	673	565
SOM	NEGATIVE			34	181	39
	PENDING					4
	VDPV2			2	20	1
	VDPV3					12
SOM Total				36	213	44
SYR	NEGATIVE		4	102	124	16
	PENDING					16
SYR Total			4	102	140	16
IRN	NEGATIVE		6	54	55	3
	WILD					3
IRN Total			6	54	58	3
KUW	NEGATIVE				3	5
	PENDING					5
KUW Total					3	5
SUD	NEGATIVE				15	32
	PENDING					13
SUD Total					15	45
Grand Total		1086	1249	1576	2017	1694

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	
				HIRAT	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	
				NANGARHAR	3	28/Jan	25/Oct	
				JALALABAD	19	27/Jan	25/Dec	
					83	8/Jan	26/Dec	
				AFG Total				83
	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	CDA	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	
				KHIGIQBAL	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		
KHYBER PAKHTUNKHWA				BANNU	4	31/Mar	27/Dec	
KOHAT				5	5/Jan	27/Sep		
MARDAN				2	15/Oct	15/Nov		
NOWSHERA				2	18/Sep	18/Oct		
PESHAWAR				23	10/Jan	26/Dec		
PAK Total				139	1/Jan	27/Dec		
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		
SOM Total				32	4/Jan	11/Oct		
2018 Total				254	1/Jan	27/Dec		
2019	AFG	WILD	HILMAND	LASHKARGAH	5	23/Feb	26/Aug	
				NAHR-E-SARAJ	4	6/Jan	26/Aug	
				KANDAHAR	21	6/Jan	26/Aug	
	KANDAHAR	WILD	NANGARHAR	JALALABAD	6	26/Jan	27/Aug	
					36	6/Jan	27/Aug	
				AFG Total				36
	PAK	WILD	BALOCHISTAN	KHUZDAR	1	20/Mar	20/Mar	
				LORALAI	1	17/Mar	17/Mar	
				PISHIN	4	2/Feb	2/Sep	
				QUETTA	27	1/Jan	20/Sep	
				DBGUTI	2	19/Aug	19/Sep	
				KABDULAH	10	1/Jan	1/Sep	
				ISLAMABAD	CDA	3	12/Apr	21/Aug
PUNJAB				FAISALABAD	4	3/Jan	3/Sep	
LAHORE				42	5/Jan	18/Sep		
MULTAN				5	18/Feb	18/Sep		
RAWALPINDI				9	10/Jan	22/Jul		
BAHAWALPUR				1	28/Aug	28/Aug		
DGKHAN				2	8/Apr	12/Sep		
DADU				4	2/May	11/Sep		
SINDH				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		
KHIGIQBAL				9	11/Apr	23/Sep		
KHIKORANGI				8	18/Feb	24/Sep		
KHILANDHI				7	19/Feb	25/Sep		
KHISITE				9	3/Jan	11/Sep		
SUKKUR				9	23/Jan	14/Sep		
KHILIAQAT				7	7/Feb	13/Sep		
KHISADDAR				9	7/Jan	17/Sep		
KP TRIBAL DISTRICTS				WAZIR-S	5	22/Jan	28/May	
KURRAM	1	15/Jan	15/Jan					
KHYBER PAKHTUNKHWA	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	9	11/Jan	18/Sep					
PAK Total				252	1/Jan	25/Sep		
SOM	VDPV2	BANADIR	HODAN	1	3/Feb	3/Feb		
SOM Total				1	3/Feb	3/Feb		
IRN	WILD	S & B	IRANSHAHR	3	22/Apr	20/May		
IRN Total				3	22/Apr	20/May		
2019 Total				292	1/Jan	25/Sep		

Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2019 - 13/10/2019

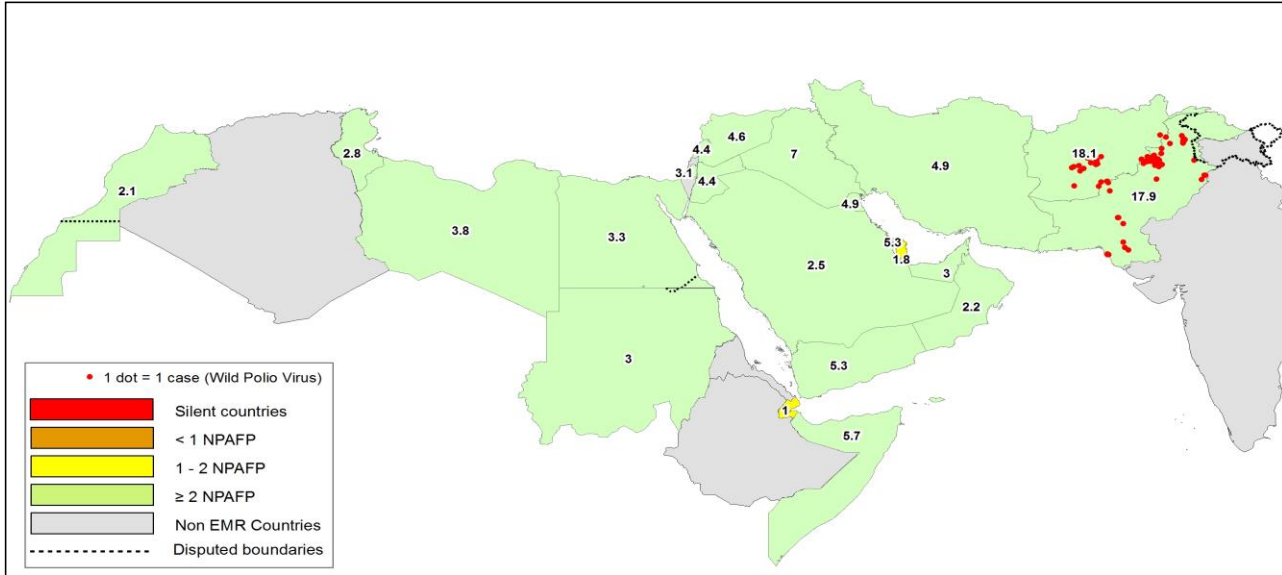


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2019 - 13/10/2019

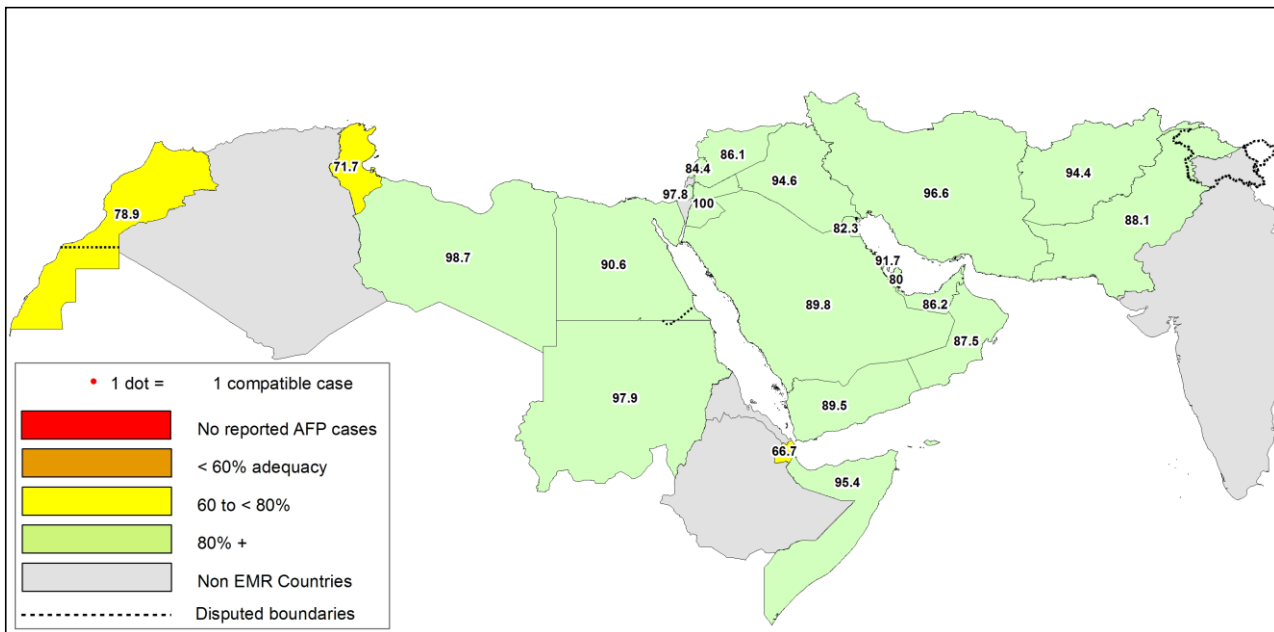


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2018 - 2019

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 - 13/10/2019

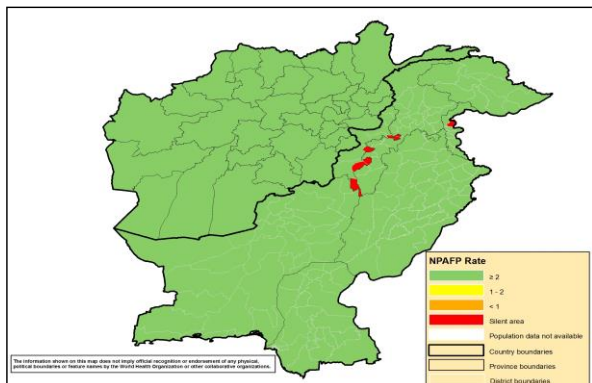


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2019 - 13/10/2019

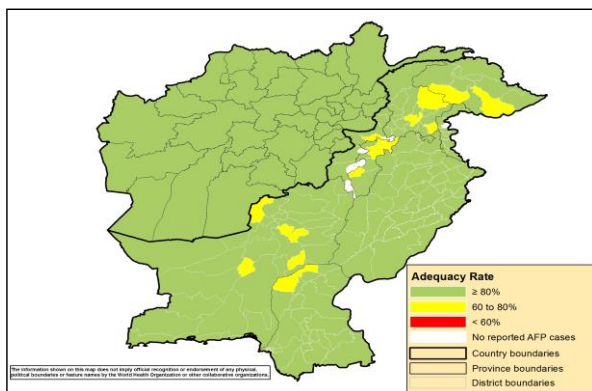
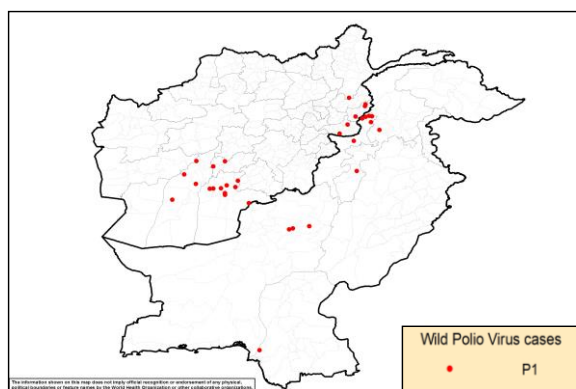
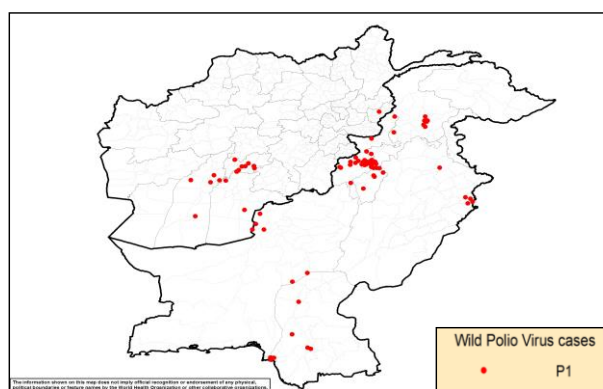


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

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



5(b) 01/01/2019 - 13/10/2019



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 41, ending 13 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

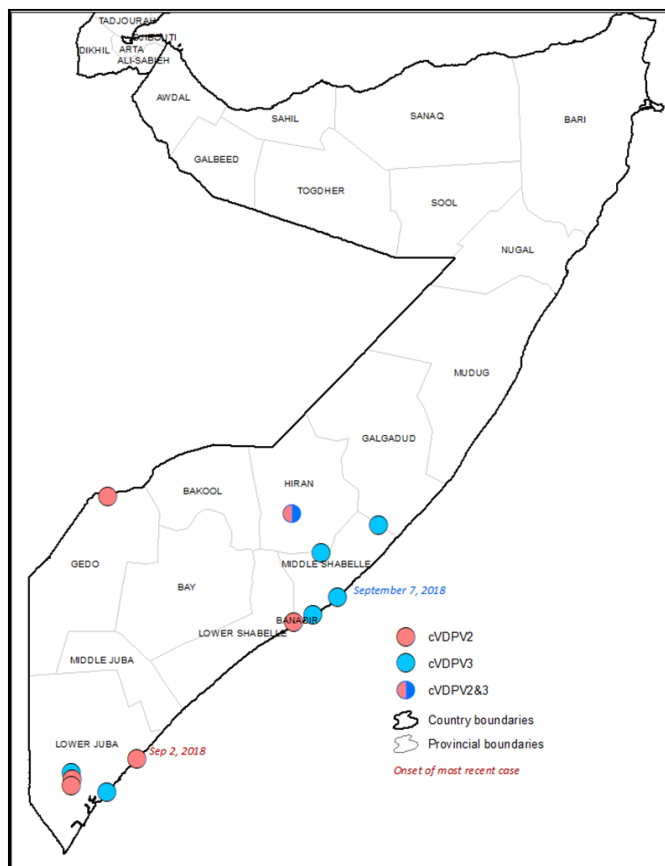
Table 10: Wild Polio cases by district and date of onset of paralysis, Pakistan 2018-2019					
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2018	KP TRIBAL DISTRICTS	BAJOUR	5	1-Sep-18	31-Dec-18
		KHYBER	1	25-Sep-18	25-Sep-18
	KHYBER PAKHTUNKHWA	LAKKIMRWT	1	16-Dec-18	16-Dec-18
		CHARSADA	1	1-Aug-18	1-Aug-18
	SINDH	KHIGADAP	1	22-Sep-18	22-Sep-18
	BALOCHISTAN	DUKKI	3	8-Mar-18	18-May-18
2018 Total			12	8-Mar-18	31-Dec-18
2019	BALOCHISTAN	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
		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

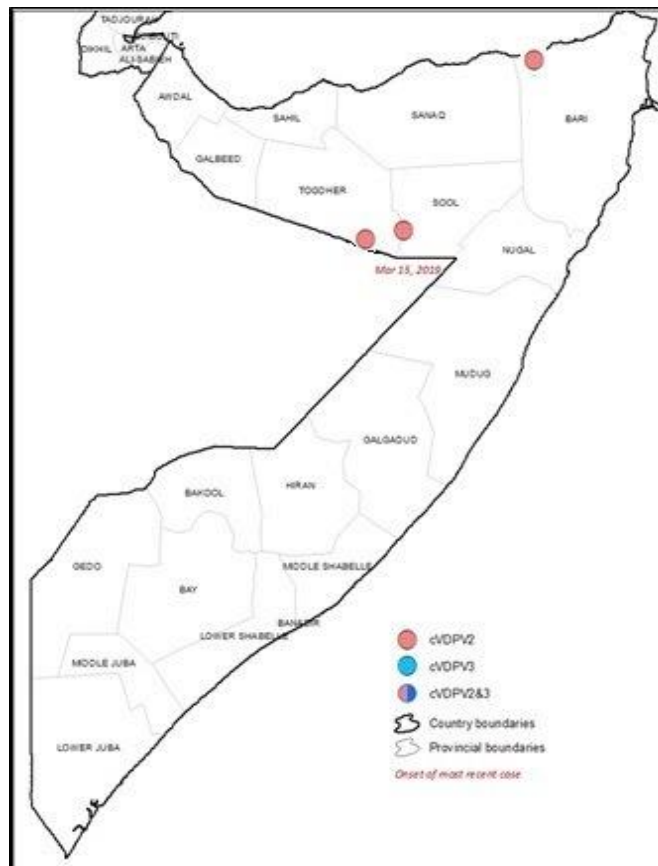
COUNTRY	YEAR	PROVINCE	DISTRICT	cVDPV2			cVDPV3			
				Count	First Case	Last Case	Count	First Case	Last Case	
SOM	2019	BARI	BOSSASO	1	08-May-19	08-May-19				
		TOGDHER	BUHODLE	1	21-Apr-19	21-Apr-19				
		SOOL	LAS ANOD	1	15-Mar-19	15-Mar-19				
	Total 2019				3	15-Mar-19	8-May-19			
	2018	LOWER JUBA	JAMAAME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

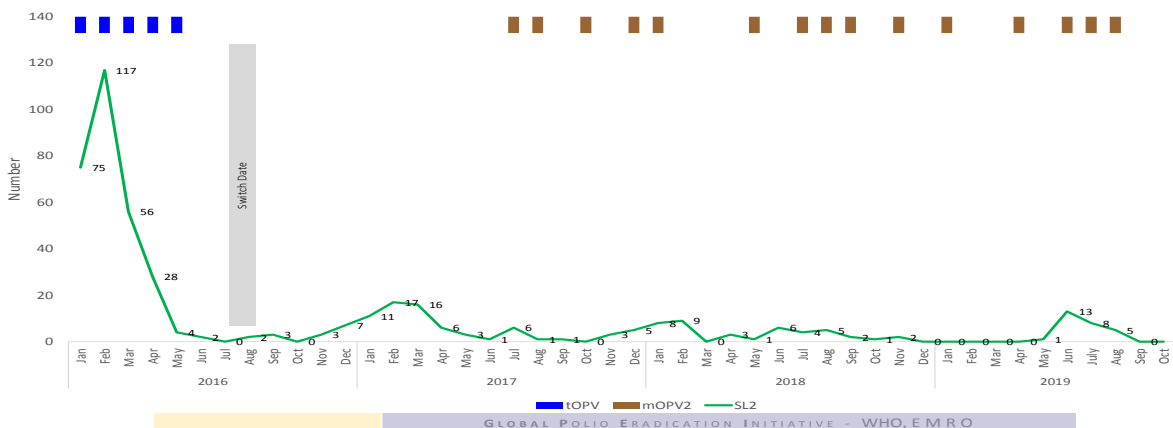
6(a) 01/01/2018 - 31/12/2018



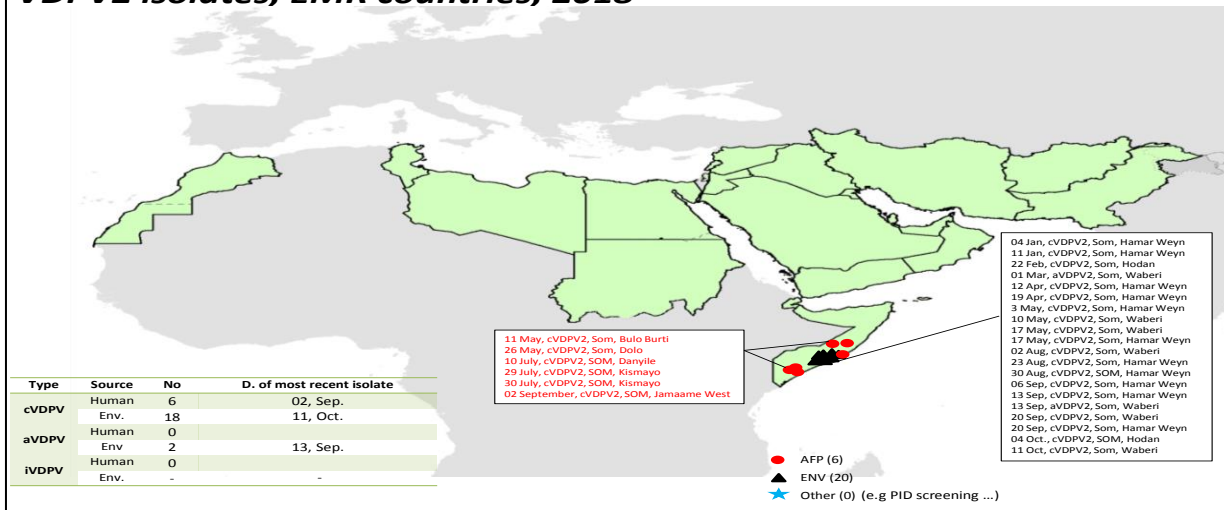
6(b) 01/01/2019 - 13/10/2019



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

