

Highlights of Polio Fax Bulletin No. 1090 for Week 34 2019

I. Poliovirus Transmission

1. **Endemic countries (PAKISTAN & AFGHANISTAN):** Five new wild poliovirus type-1 (WPV1) cases reported this week from Pakistan. No new positive environmental samples reported.

a. *Human samples:* Five new WPV1 cases reported this week from Pakistan. Total WPV1 cases in 2019 to date are 71 (13 from Afghanistan and 58 from Pakistan). This compares with 18 cases in 2018 in the same period (Afghanistan – 14 and Pakistan – 4).

- Afghanistan:

In 2019 to date, 13 WPV1 cases are reported. They include five cases each from Hilmand and Uruzgan provinces, two from Kandahar province and one from Kunar province. The most recent case has onset of paralysis on 16 July 2019.

- Pakistan: Five new WPV1 cases were reported this week and their details are as follows:

- Case (1): The first case was reported from Hyderabad district, Sindh province, with date of onset 20 July 2019. The case is a 12-month old female child. The child received reportedly a total of 7 OPV doses - all were from supplementary immunization activities (SIAs) and none from routine.

- Case (2): The second case was reported from North Waziristan district, KP Tribal Districts (KPTD), with date of onset 21 July 2019. The case is a 30-month old male child. The child received reportedly a total of 7 OPV doses - all were from SIAs and none from routine.

- Case (3): The third case was reported from Hangu district, Khyber Pakhtunkhwa (KP) province, with date of onset 28 July 2019. The case is an 18-month old female child. The child received reportedly a total of 7 OPV doses all were from SIAs and none from routine.

- Case (4): The fourth case was reported from Bannu district, Khyber Pakhtunkhwa (KP) province, with date of onset 2 August 2019. The case is an 18-month old female child. The child did not receive reportedly any OPV doses, neither from routine nor from SIAs.

- Case (5): The fifth case was reported from Hyderabad district, Sindh province, with date of onset 5 August 2019. The case is a 120-month old female child. The child received a total of 10 OPV doses out of which 3 were from routine and 7 from SIAs.

In 2019 to date, 58 WPV1 cases are reported from Pakistan. They include 34 from Khyber Pakhtunkhwa (KP) province, 10 from KP Tribal Districts (KPTD), 5 each from Punjab and Sindh provinces and 4 from Balochistan province. The most recent case has onset of paralysis on 5 August 2019.

b. *Environmental samples*: No new WPV1 positive environmental samples were reported this week.

- Afghanistan: In 2019 to date, there are 29 positive environmental samples with most recent positive sample collected on 24 July 2019.
- Pakistan: In 2019 to date, there are 189 positive environmental samples with most recent positive sample collected on 28 July 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 0.8 and percentage of AFP cases with adequate stool specimens of 50%.
- Morocco has a percentage of AFP cases with adequate stool specimens of 77.5%.
- Qatar has a non-polio AFP rate of 1.7 and percentage of AFP cases with adequate stool specimens of 75%.
- Tunisia has a percentage of AFP cases with adequate stool specimens of 75%.
- 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.

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

Country	Reported AFP cases by week of onset - Week (34/19) / Ending on : 25/08/2019														
	Total AFP 2017	Total AFP 2018	Total AFP to date, 2019	W23 09 Jun 19	W24 16 Jun 19	W25 23 Jun 19	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
Afghanistan	3094	3378	2433	63	87	87	83	78	75	81	67	77	34	51	21
Bahrain	18	35	11	1	1	0	0	0	0	1	0	0	0	0	0
Djibouti	4	0	2	0	0	0	1	0	0	0	0	0	1	0	0
Egypt	1242	1246	819	18	36	29	20	33	28	23	28	15	7	18	
Iran	820	896	591	19	13	16	15	20	19	23	15	9	6	0	
Iraq	699	1023	682	13	30	27	20	30	18	21	22	12	6	11	
Jordan ****	116	115	87	3	2	2	3	0	2	1	1	0	0	2	1
Kuwait	69	72	25	1	1	2	1	1	0	0	0	0	0	0	0
Lebanon ****	80	95	55	2	2	1	0	1	2	2	2	2	1		
Libya	88	122	47	4	2	0	1	0	1	3	2	1	0	0	0
Morocco	143	212	129	2	5	5	3	3	4	7	3	1			
Oman	40	28	12	2	0	1	0	1	0	0	0				
Pakistan	10319	12276	8642	235	338	328	272	311	313	278	276	225	177	59	0
Palestine ****	43	44	37	3	1	2	0	1	5	0	1	1	0	0	0
Qatar	18	10	4	0	0	0	0	0	0	1	0	0	1	0	0
Saudi Arabia	276	241	128	1	1	1	1	0	0	0	0				
Somalia	345	353	238	9	9	6	8	8	7	8	8	3	7	3	1
Sudan	570	579	318	5	12	19	11	10	23	8	14	7	1	3	0
Syria ****	362	362	243	1	9	5	4	8	12	7	6	4	2	2	
Tunisia	67	68	48	1	2	3	0	3	0	2	2	0	1	0	
U.A.E	58	40	24	0	0	0	0	1	2	0	1	1	0	0	0
Yemen	713	730	478	10	17	15	19	28	26	11	8	13	6	0	
Total EMR	19184	21925	15053	393	568	549	462	537	537	477	456	371	250	149	23

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2017	Total year 2018	25/08		Confirmed polio cases by month of onset												
			2018	2019	September 2018	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019	May 2019	June 2019	July 2019	August 2019	
Afghanistan	14	21	14	13	3	2	1	0	2	1	3	1	5			1	
Bahrain	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	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	0	
Kuwait	0	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	0	
Libya	0	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				
Oman	0	0	0	0	0		0	0	0				0				
Pakistan	8	12	4	58	3	1	0	4	4	2	0	11	11	16	12	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	0	
Saudi Arabia	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	0	
Sudan	0	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	0	
Tunisia	0	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												
Total EMR	22	33	18	71	6	3	1	4	6	3	3	12	16	16	13	2	

**** 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 (34/19) / Ending on : 25/08/2019

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	2433	13	0	249	2171	0	18.4	29	3	94.1	13	0	25-08-2019
Bahrain	35	0	0	0	35	0	12.1	0	0	97.1	0	0	11	0	0	11	0	0	5.8	7	7	100.0	0	0	25-08-2019
Djibouti	0	0	0	0	0	0	0.0	0	0		0	0	2	0	0	2	0	0	0.8	0	0	50.0	0	0	18-08-2019
Egypt	1246	0	0	2	1243	1	3.2	2	0	93.2	0	0	819	0	0	90	729	0	3.3	3	0	89.4	0	0	22-08-2019
Iran	896	0	0	0	894	2	4.6	0	0	97.0	0	0	591	0	0	16	575	0	4.7	0	0	95.9	0	0	24-08-2019
Iraq	1023	0	0	0	1023	0	6.7	0	0	89.9	0	0	682	0	0	65	617	0	6.9	6	0	95.0	0	0	24-08-2019
Jordan	115	0	0	0	115	0	4.1	0	0	100.0	0	0	87	0	0	7	80	0	4.8	0	0	100.0	0	0	22-08-2019
Kuwait	72	0	0	0	72	0	8.1	0	0	90.3	0	0	25	0	0	0	25	0	4.3	0	0	84.0	0	0	25-08-2019
Lebanon	95	0	0	4	91	0	5.1	4	1	92.6	0	0	55	0	0	8	47	0	4.6	5	0	89.1	0	0	16-08-2019
Libya	122	0	0	0	122	0	4.9	0	0	96.7	0	0	47	0	0	3	44	0	2.9	0	0	97.9	0	0	25-08-2019
Morocco	212	0	0	1	211	0	2.4	1	0	77.8	0	0	129	0	0	56	73	0	2.2	34	10	77.5	0	0	02-08-2019
Oman	28	0	0	0	28	0	3.2	0	0	92.9	0	0	12	0	0	1	11	0	2.0	0	0	83.3	0	0	28-07-2019
Pakistan	12276	12	1	0	12263	0	15.7	0	0	87.0	12	0	8642	58	0	714	7870	0	16.9	144	0	89.1	58	0	25-08-2019
Palestine	44	0	0	0	44	0	2.3	0	0	90.9	0	0	37	0	0	12	25	0	3.0	0	0	100.0	0	0	25-08-2019
Qatar	10	0	0	0	10	0	2.8	0	0	100.0	0	0	4	0	0	3	1	0	1.7	0	0	75.0	0	0	25-08-2019
Saudi Arabia	241	0	0	0	241	0	3.0	0	0	95.9	0	0	128	0	0	46	82	0	2.4	41	5	90.6	0	0	01-08-2019
Somalia	353	0	0	0	341	12	5.5	0	0	97.7	0	0	238	0	0	21	214	3	5.8	0	0	96.6	0	0	25-08-2019
Sudan	579	0	0	0	579	0	3.2	0	0	97.2	0	0	318	0	0	20	298	0	2.7	4	3	97.8	0	0	25-08-2019
Syria	362	0	0	0	362	0	4.7	0	0	87.3	0	0	243	0	0	17	226	0	4.8	3	0	86.0	0	0	24-08-2019
Tunisia	68	0	0	0	68	0	2.6	0	0	80.9	0	0	48	0	0	3	44	1	2.6	0	0	75.0	0	0	23-08-2019
U.A.E	40	0	0	0	40	0	3.2	0	0	97.5	0	0	24	0	0	8	16	0	3.0	3	0	83.3	0	0	25-08-2019
Yemen	730	0	0	141	589	0	5.2	141	129	91.6	0	0	478	0	0	412	66	0	5.2	247	225	90.8	0	0	24-08-2019
EMR	21925	33	1	148	21728	15	8.7	148	130	89.8	33	0	15053	71	0	1764	13214	4	9.3	526	253	90.7	71	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	754	4	0	29	132	56
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	336	0	0	7	33	29
IRN	145	0	0	3	6	0	107	0	0	2	4	0
IRQ	811	0	0	22	93	9	374	0	0	7	11	25
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	2	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	5
PAK	4200	3	0	207	882	0	3209	6	0	144	536	114
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	1051	0	10	49	133	0	721	0	1	13	85	63
SUD	350	0	0	3	24	88	220	0	0	0	15	43
SYR	670	0	0	8	17	0	520	0	0	10	26	14
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	301	0	0	0	0	302
EMR	10758	7	10	360	1471	1609	6651	10	1	214	855	670

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	4	20/Jun/19
	Pakistan	6	21/Jul/19
2019 Total		10	21/Jul/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	05-Jun-19	05-Jun-19
		HILMAND	SANGIN	1	06-Mar-19	06-Mar-19
	PAK	BALOCHSITAN	KILLABDULLAH	1	02-Jul-19	02-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				5	06-Mar-19	02-Jul-19
2018	AFG	NANGARHAR	PACHIERAGAM	1	17-Jul-18	17-Jul-18
		URUZGAN	SHAHID-E-HASSA	1	08-Jul-18	08-Jul-18
	PAK	KHYBER PAKHTUNKHWA TRIBAL DISTRICTS (KPTD)	BAJOUR	1	01-Sep-18	01-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 (34/2019) / Ending on : (25/08/2019)

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	VDPV									
Afghanistan	RRL Pakistan	2361	167	21	365	1713	72	23	12	125						119		1	1		4	14%	97%	99%	98%	25/08/2019
Bahrain	NPL Oman / CDC																									19/08/2019
Djibouti	NPL Kenya / CDC	2						2																		18/08/2019
Egypt***	RRL Egypt	797	31	3	68	634	23	38		14						19			6	2		9%	96%	100%	99%	25/08/2019
Iran	NPL Iran / CDC	596	8		11	560	3	14		2						5		1				3%	100%	100%	98%	17/08/2019
Iraq	RRL Egypt	687	10		81	541	19	36		5						8						11%	100%	100%	70%	22/08/2019
Jordan	NPL Jordan / RRL EGYPT	87			12	73	2	1														14%	100%			25/08/2019
Kuwait	RRL Kuwait / RIVM	31			2	25		4														8%	85%		100%	25/08/2019
Lebanon	NPL Jordan / RRL EGYPT	52	1		5	46									1							10%	100%	100%	0%	25/08/2019
Libya	RRL Tunisia / RIVM	48			1	47																1%	98%		98%	21/08/2019
Morocco	NPL Morocco / RRL Tunisia	122	1		2	112		7							1							2%	100%	100%	96%	09/08/2019
Oman	NPL Oman / CDC	12			2	9		1														21%	100%		100%	19/08/2019
Pakistan	RRL Pakistan	8504	354	41	1301	6411	317	80	50 *	211						219			5	1	5	13%	98%	99%	97%	25/08/2019
Palestine & UNRWA		37			6	30		1														17%	38%		100%	25/08/2019
Qatar	NPL Oman / CDC	3				2		1														0%	100%		100%	19/08/2019
Saudi Arabia	NPL Saudi Arabia / CDC	135	4			123		8								4						1%	95%	100%	100%	08/07/2019
Somalia	NPL Kenya / CDC	238	11		46	162	12	7		4			1	3		4					2	21%	16%		99%	25/08/2019
Sudan	NPL Sudan / RRL Egypt	315	5		47	249	7	7		1						2						13%	55%	100%	25%	25/08/2019
Syria	NPL Syria / RRL Egypt	236	12		10	209	5			5						9						6%	100%	100%	50%	22/08/2019
Tunisia	RRL Tunisia	44			3	39	2															9%	100%		98%	21/08/2019
U.A.E	NPL Oman / CDC	17			3	14																18%	100%		53%	19/08/2019
Yemen	NPL Kenya / CDC																									24/08/2019
Total EMR 2019		14324	604	65	1965	10999	462	230	62	367			1	3		391		2	12	3	11	12%	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

* Notification received from National EOC Pakistan of 5 new WPV1 cases that will show in laboratory table in next week bulletin

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	118
	PENDING					2
	WILD	20	2	42	83	29
AFG Total		149	185	316	336	149
EGY	NEGATIVE	493	528	522	540	421
	PENDING	2				90
	VDPV2	3	1			
EGY Total		498	529	522	540	511
IRN	NEGATIVE				6	54
	WILD					3
IRN Total					6	54
JOR	NEGATIVE		2	32	36	21
	PENDING					3
JOR Total			2	32	36	24
LEB	NEGATIVE		4	27	45	26
	PENDING					2
LEB Total			4	27	45	28
PAK	NEGATIVE	347	462	523	534	241
	PENDING					39
	WILD	79	59	105	139	189
	WILD & VDPV2	5	3	1		
	VDPV2	8	5	4		
PAK Total		439	529	633	673	469
SOM	NEGATIVE			34	181	35
	VDPV2				2	20
	VDPV3					12
SOM Total				36	213	36
SUD	NEGATIVE				15	25
	PENDING					10
SUD Total					15	35
SYR	NEGATIVE				4	102
	PENDING					8
SYR Total				4	102	113
Grand Total		1086	1249	1576	2014	1415

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
				ASADABAD	2	24-Apr	25-Sep
				BEHSUD	3	28-Jan	25-Oct
				JALALABAD	19	27-Jan	26-Dec
				AFG Total	83	8-Jan	26-Dec
				PAK	WILD	BALOCHISTAN	LORALAI
	PISHIN	1	2-Dec				2-Dec
	QUETTA	13	13-Feb				20-Dec
	KABDULAH	8	1-Jan				15-Dec
	CDA	7	10-Jan				10-Nov
	LAHORE	12	11-Jun				18-Dec
	RAWALPINDI	15	10-Jan				14-Dec
	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	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	5	19-May	25-Oct				
BAJOUR	2	26-Nov	27-Dec				
WAZIR-S	4	31-Mar	27-Dec				
KHYBER PAKHTOONKHUWA	BANNU	4	5-Jan	27-Sep			
	KOHAT	2	15-Oct	15-Nov			
	MARDAN	2	18-Sep	18-Oct			
	NOWSHERA	23	10-Jan	26-Dec			
	PESHAWAR	139	1-Jan	27-Dec			
PAK Total	32	4-Jan	11-Oct				
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	4	23-Feb	24-Jul
				NAHR-E-SARAJ	3	6-Jan	26-Jan
				KANDAHAR	17	6-Jan	24-Jul
				NANGARHAR	5	26-Jan	23-Mar
				AFG Total	29	6-Jan	24-Jul
	PAK	WILD	BALOCHISTAN	KHUZDAR	1	20-Mar	20-Mar
				LORALAI	1	17-Mar	17-Mar
				PISHIN	3	2-Feb	2-Jul
				QUETTA	20	1-Jan	28-Jul
				KABDULAH	8	1-Jan	19-Apr
				CDA	2	12-Apr	2-May
				FAISALABAD	3	3-Jan	17-Jul
				LAHORE	32	5-Jan	18-Jul
				MULTAN	4	18-Feb	18-Jul
				RAWALPINDI	9	10-Jan	22-Jul
				DGKHAN	1	8-Apr	8-Apr
				DADU	2	2-May	3-Jul
				HYDERABAD	7	24-Jan	10-Jul
				JACOBABAD	2	24-Jan	12-Feb
				KAMBAR	3	7-Mar	8-Jul
				KHIBALDIA	5	2-Jan	11-Jun
				KHIGADAP	17	8-Jan	12-Jul
				KHIGQBAL	5	11-Apr	19-Jun
				KHIKORANGI	6	18-Feb	17-Jul
				KHILANDHI	5	19-Feb	18-Jul
	KHISITE	7	3-Jan	3-Jul			
	SUKKUR	5	23-Jan	15-May			
KHILIAQAT	5	7-Feb	8-Jul				
KHISADDAR	7	7-Jan	10-Jul				
KP TRIBAL DISTRICTS	5	22-Jan	28-May				
KURRAM	1	15-Jan	15-Jan				
KHYBER PAKHTOONKHUWA	BANNU	6	28-Jan	27-Jun			
	DIKHAN	4	8-Jan	11-Jun			
	KOHAT	1	27-Feb	27-Feb			
	MARDAN	4	16-Mar	15-Jun			
	PESHAWAR	8	11-Jan	10-Jul			
PAK Total	189	1-Jan	28-Jul				
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				222	1-Jan	28-Jul	

Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2019 - 25/08/2019

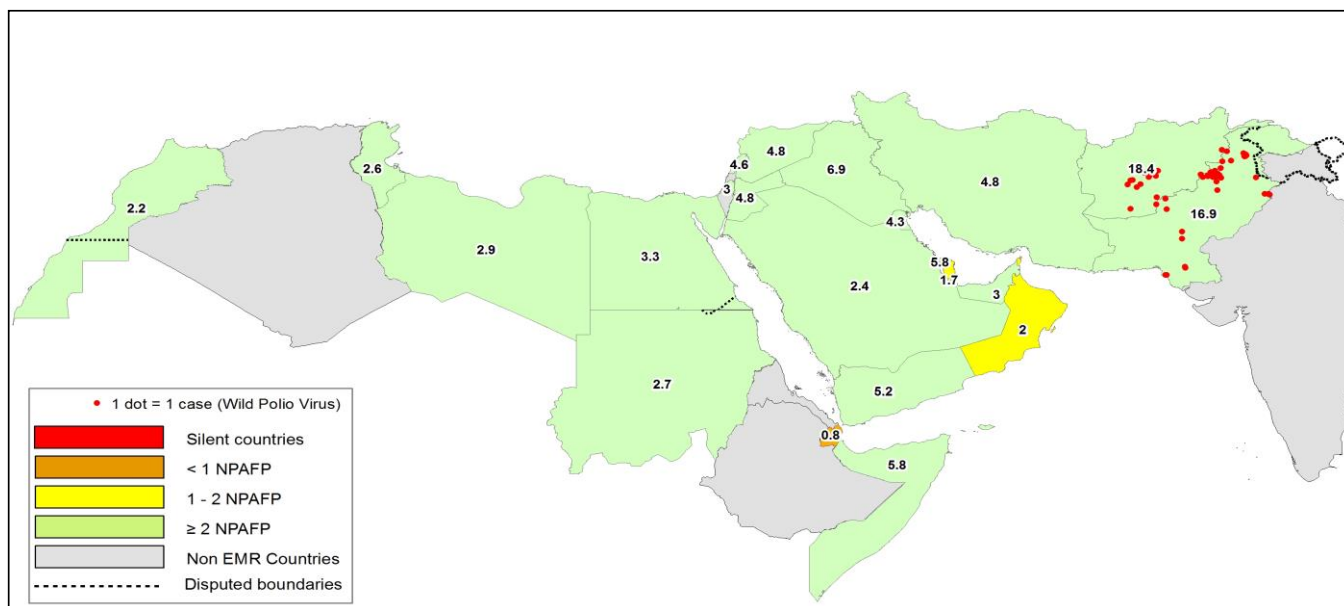


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2019 - 25/08/2019

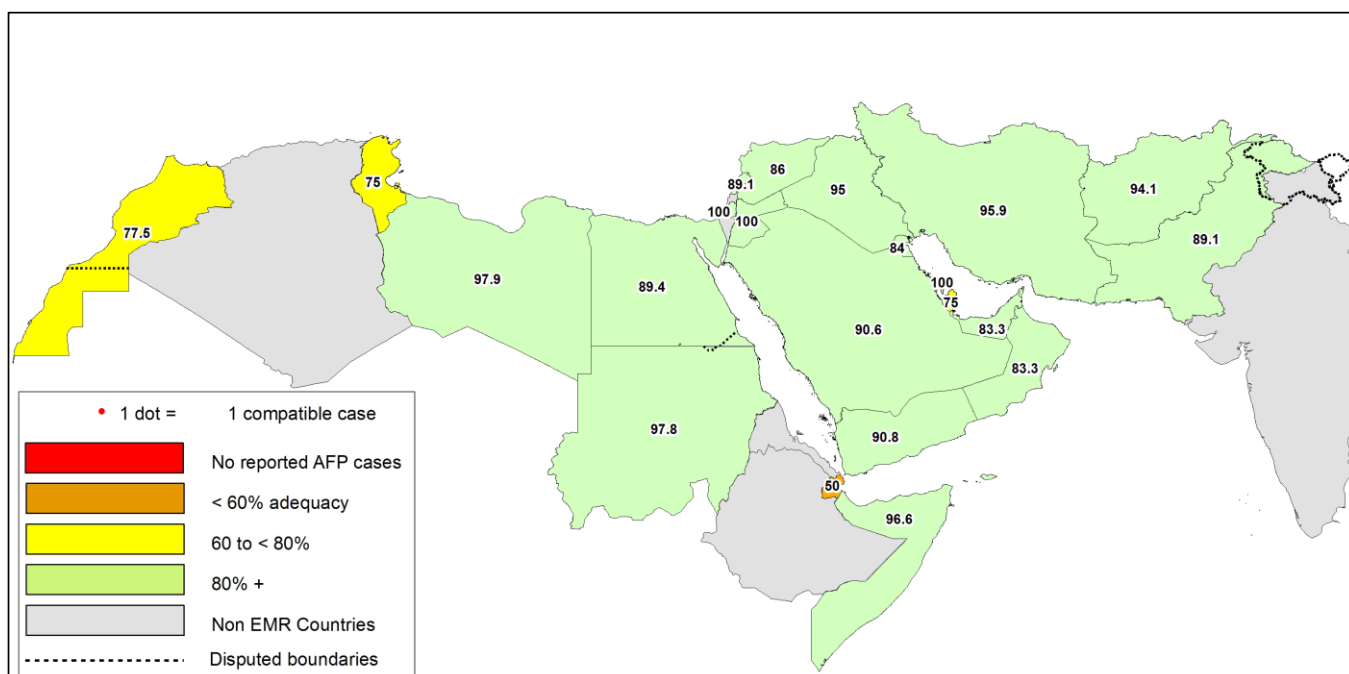


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2018 - 2019

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	13	4-Jan-19	16-Jul-19
	PAK	58	15-Jan-19	5-Aug-19
2019 Total		71	4-Jan-19	5-Aug-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 - 25/08/2019

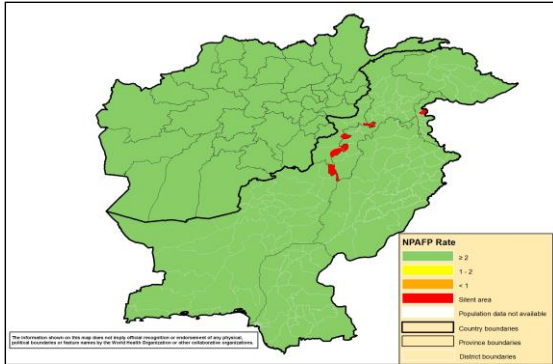


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2019 - 25/08/2019

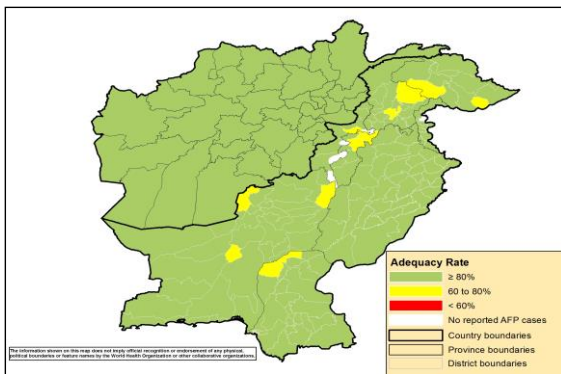
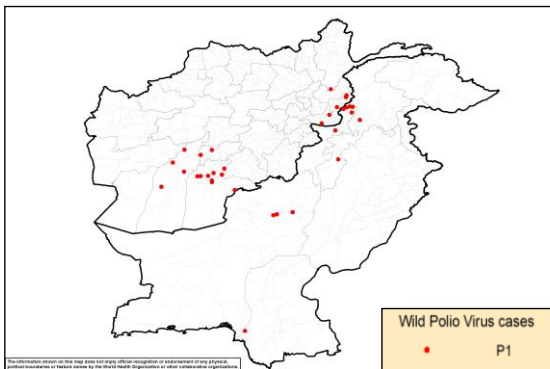
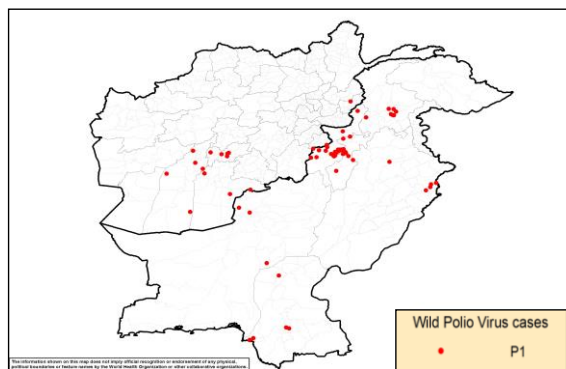


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

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



5(b) 01/01/2019 - 25/08/2019



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 34, ending 25 August 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	CHORA	2	20-Mar-19	16-Jul-19
		TIRINKOT	2	19-May-19	19-May-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
2019 Total			13	4-Jan-19	16-Jul-19

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

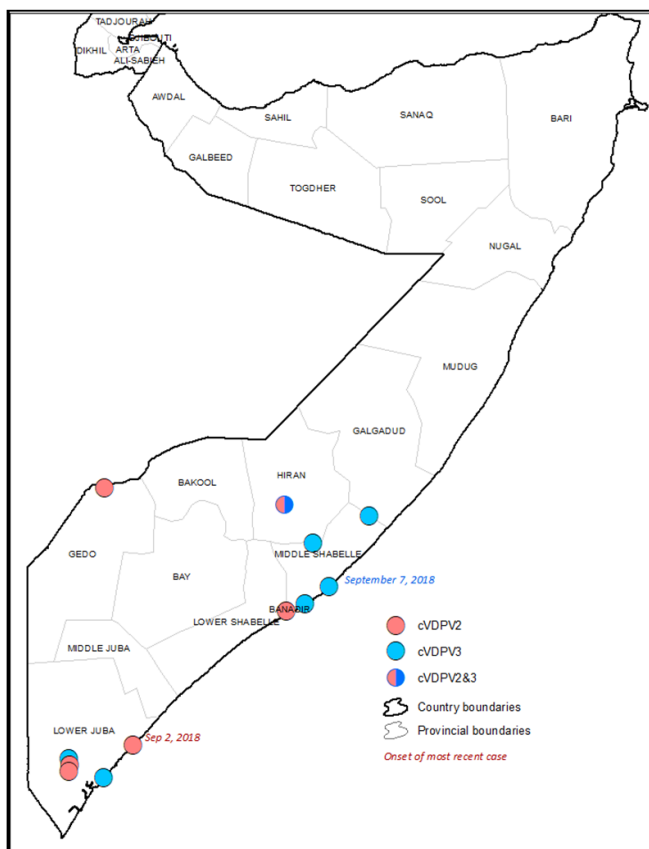
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2018	KP TRIBAL DISTRICTS	BAJOUR	5	1-Sep-18	31-Dec-18
		KHYBER	1	25-Sep-18	25-Sep-18
	KHYBER PAKHTOONKHWA	LAKKIMRWT	1	16-Dec-18	16-Dec-18
		CHARSADA	1	1-Aug-18	1-Aug-18
	HILMAND	NAWZAD	3	1-Sep-18	6-Nov-18
		NAD-E-ALI	1	1-Jun-18	1-Jun-18
	SINDH	KHIGADAP	1	22-Sep-18	22-Sep-18
BALUCHISTAN	DUKKI	3	8-Mar-18	18-May-18	
2018 Total			33	1-Jan-18	31-Dec-18
2019	SINDH	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
	KHYBER PAKHTOONKHWA	BANNU	22	15-Jan-19	2-Aug-19
		HANGU	2	20-Jan-19	28-Jul-19
		CHARSADA	1	21-Jul-19	21-Jul-19
		LAKKIMRWT	2	27-May-19	1-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
		KP TRIBAL DISTRICTS	WAZIR-N	8	4-Apr-19
	KHYBER		1	14-Feb-19	14-Feb-19
	BAJOUR		1	18-Jan-19	18-Jan-19
	BALUCHISTAN	QUETTA	1	6-Jul-19	6-Jul-19
		KABDULAH	2	9-Jun-19	2-Jul-19
		JAFARABAD	1	28-May-19	28-May-19
	PUNJAB	LAHORE	4	20-Jan-19	22-Jun-19
		JHELUM	1	21-Jun-19	21-Jun-19
2019 Total			58	15-Jan-19	5-Aug-19

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

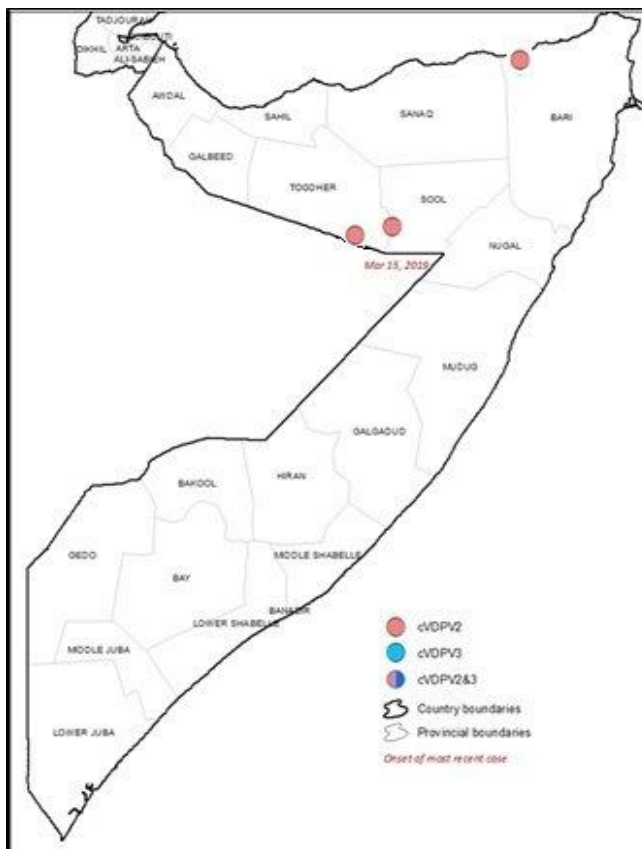
COUNTRY	YEAR	PROVINCE	DISTRICT	cVDPV2			cVDPV3			
				Count	First Case	Last Case	Count	First Case	Last Case	
SOM	2019	BARI	BOSSASO	1	08-May-19	08-May-19				
		TOGDHER	BUHODLE	1	21-Apr-19	21-Apr-19				
		SOOL	LAS ANOD	1	15-Mar-19	15-Mar-19				
	Total 2019				3	15-Mar-19	8-May-19			
	2018	LOWER JUBA	JAMAAME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

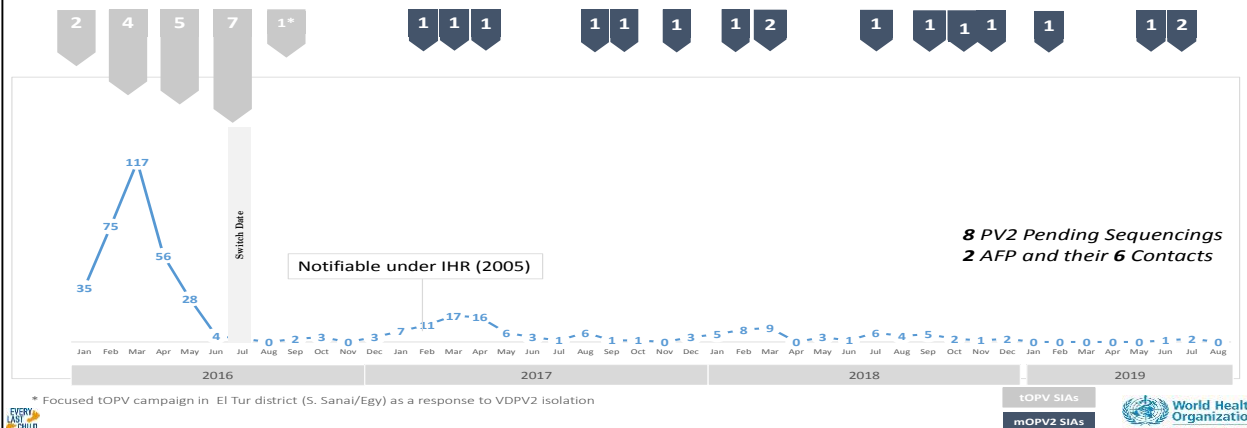
6(a) 01/01/2018 - 31/12/2018



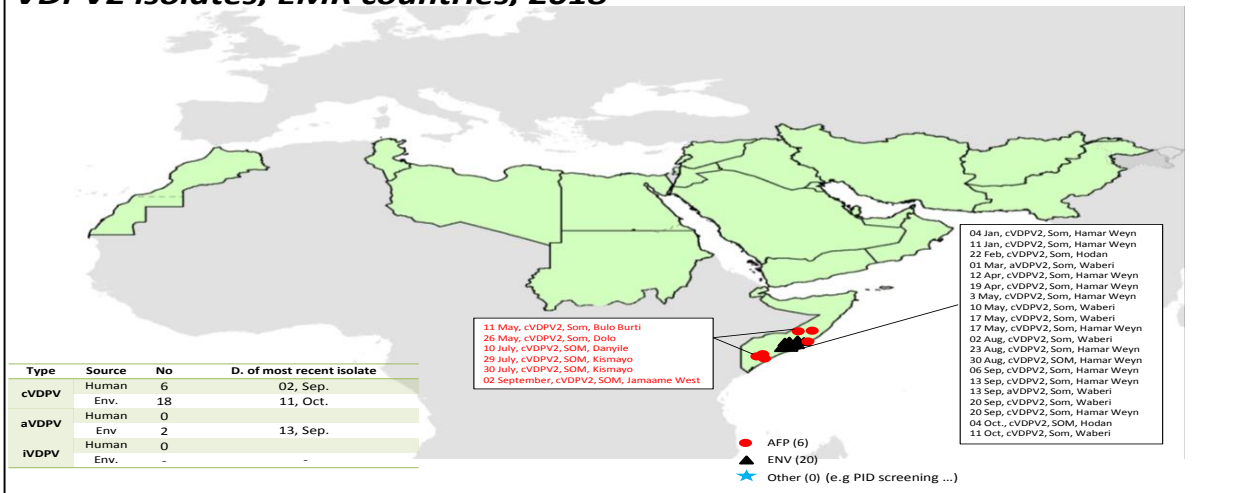
6(b) 01/01/2019 - 25/08/2019



Sabin Like Type-2 Poliovirus Isolates (H & E) EMR, 2016-19



VDPV2 isolates, EMR countries, 2018



VDPV2 isolates, EMR countries, 2019

