

Highlights of Polio Fax Bulletin No. 1094 for Week 38 2019

I. Poliovirus Transmission

1. **Endemic countries (PAKISTAN & AFGHANISTAN):** Four new wild poliovirus cases reported this week from Pakistan. Eight new positive environmental samples reported this week one from Afghanistan and seven from Pakistan.

a. *Human samples:* Four new wild poliovirus cases reported from Pakistan this week. Total of WPV1 cases in 2019 to date are 82 (16 from Afghanistan and 66 from Pakistan). This compares with 22 cases in 2018 in the same period (Afghanistan – 16 and Pakistan – 6).

- 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:

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

- Case (1): The case was reported from Torghar district, Khyber Pakhtunkhwa (KP) province, with date of onset 2 August 2019. The case is a 23-month old male child. The child received reportedly a total of 10 OPV doses out of which 3 were from routine and 7 from supplementary immunization activities (SIAs).

- Case (2): The case was reported from Lakki Marwat district, KP province, with date of onset 18 August 2019. The case is an 18-month old male child. The child did not receive any OPV doses from routine and for SIAs it is still under investigation. The case also has as a wild positive contact in addition to the index case.

- Case (3): The case was reported from Lakki Marwat district, KP province, with date of onset 24 August 2019. The case is a 30-month old female child. The child reportedly received 7 OPV doses all from SIAs and none from routine.

- Case (4): The case was reported from Lakki Marwat district, KP province, with date of onset 28 August 2019. The case is a 6-month old male child. The child reportedly received 3 OPV doses all from SIAs and none from routine.

In 2019 to date, 66 WPV1 cases are reported from Pakistan. They include 39 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 28 August 2019.

Environmental samples: Eight new WPV1 positive environmental samples were reported this week, one from Afghanistan and seven from Pakistan.

- Afghanistan: In 2019 to date, there are 36 positive environmental samples with most recent positive sample collected on 28 August 2019.

- Pakistan: In 2019 to date, there are 224 positive environmental samples with most recent positive sample collected on 5 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, 19 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 77.5%.
- Tunisia has a percentage of AFP cases with adequate stool specimens of 73.2%.
- 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.

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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 (38/19) / Ending on : 22/09/2019														
	Total AFP 2017	Total AFP 2018	Total AFP to date, 2019	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	W38 22 Sep 19
Afghanistan	3094	3378	2715	78	75	81	68	79	37	75	82	59	67	55	9
Bahrain	18	35	11	0	0	1	0	0	0	0	0	0	0	0	0
Djibouti	4	0	3	0	0	0	0	0	1	0	0	1	0	0	0
Egypt	1242	1246	909	33	28	23	28	15	7	23	29	25	15	16	
Iran	820	896	668	20	19	24	17	15	24	21	16	10	2	1	
Iraq	699	1023	755	30	18	22	22	12	6	15	28	17	19	3	
Jordan ****	116	115	91	0	2	1	1	0	0	2	2	0	2	1	
Kuwait	69	72	29	1	0	0	0	0	0	0	0	1	3	0	0
Lebanon ****	80	94	59	1	3	2	2	2	1	0	1	0	2	0	
Libya	88	122	66	0	1	3	2	1	1	3	9	3	1	2	
Morocco	143	212	129	3	4	7	3	1							
Oman	40	28	14	1	0	0	0	0	0	1	1	0	0	0	0
Pakistan	10319	12276	9849	316	322	291	305	257	241	272	314	262	192	53	2
Palestine ****	43	44	42	1	5	0	1	1	0	1	1	1	1	1	0
Qatar	18	10	5	0	0	1	0	0	1	0	0	0	1	0	0
Saudi Arabia	276	242	131	0	0	0	0	0	0	0	0	0	0	0	0
Somalia	345	353	259	8	7	9	8	4	7	5	5	6	5	2	0
Sudan	570	579	381	10	23	8	14	8	4	10	18	16	13	5	0
Syria ****	362	362	265	8	12	7	6	5	2	3	5	3	6	5	
Tunisia	67	68	56	3	0	2	2	1	1	2	0	1	3	1	
U.A.E	58	40	28	1	2	0	1	1	0	1	1	2	0	0	0
Yemen	713	730	528	29	26	12	8	14	8	12	10	11	9	3	
Total EMR	19184	21925	16993	543	547	494	488	416	341	446	522	418	341	148	11

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2017	Total year 2018	22/09		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	0		
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0			
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Jordan ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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		
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	6	66	1	0	4	4	2	0	11	11	16	12	10	
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	
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				
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	0		
Tunisia	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		
Yemen	0	0	0	0						0						
Total EMR	22	33	22	82	3	1	4	6	3	3	12	16	17	14	11	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 (38/19) / Ending on : 22/09/2019

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	2715	16	0	295	2404	0	18.4	36	6	94.3	16	0	22-09-2019
Bahrain	35	0	0	0	35	0	12.1	0	0	97.1	0	0	11	0	0	11	0	0	5.2	10	10	100.0	0	0	22-09-2019
Djibouti	0	0	0	0	0	0	0.0	0	0		0	0	3	0	0	3	0	0	1.1	0	0	66.7	0	0	22-09-2019
Egypt	1246	0	0	2	1243	1	3.2	2	0	93.2	0	0	909	0	0	83	826	0	3.3	2	0	90.1	0	0	19-09-2019
Iran	896	0	0	0	894	2	4.6	0	0	97.0	0	0	668	0	0	43	625	0	4.8	0	0	96.1	0	0	21-09-2019
Iraq	1023	0	0	0	1023	0	6.7	0	0	89.9	0	0	755	0	0	50	705	0	6.8	10	0	94.8	0	0	19-09-2019
Jordan	115	0	0	0	115	0	4.1	0	0	100.0	0	0	91	0	0	6	85	0	4.5	0	0	100.0	0	0	19-09-2019
Kuwait	72	0	0	0	72	0	8.1	0	0	90.3	0	0	29	0	0	2	27	0	4.5	0	0	86.2	0	0	22-09-2019
Lebanon	94	0	0	3	91	0	5.0	3	0	92.6	0	0	59	0	0	9	50	0	4.4	5	0	86.4	0	0	20-09-2019
Libya	122	0	0	0	122	0	4.9	0	0	96.7	0	0	66	0	0	10	56	0	3.6	1	0	98.5	0	0	21-09-2019
Morocco	212	0	0	1	211	0	2.4	1	0	77.8	0	0	129	0	0	56	73	0	2.0	37	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	0	14	0	2.1	0	0	92.9	0	0	23-09-2019
Pakistan	12276	12	1	0	12263	0	15.7	0	0	87.0	12	0	9849	66	0	823	8960	0	17.3	209	0	88.8	66	0	22-09-2019
Palestine	44	0	0	0	44	0	2.3	0	0	90.9	0	0	42	0	0	8	34	0	3.1	0	0	97.6	0	0	22-09-2019
Qatar	10	0	0	0	10	0	2.8	0	0	100.0	0	0	5	0	0	4	1	0	1.9	1	0	80.0	0	0	22-09-2019
Saudi Arabia	242	0	0	0	242	0	3.0	0	0	95.9	0	0	131	0	0	37	94	0	2.2	36	6	90.8	0	0	19-09-2019
Somalia	353	0	0	0	341	12	5.5	0	0	97.7	0	0	259	0	0	14	242	3	5.6	0	0	95.8	0	0	22-09-2019
Sudan	579	0	0	0	579	0	3.2	0	0	97.2	0	0	381	0	0	22	359	0	2.9	1	1	97.4	0	0	22-09-2019
Syria	362	0	0	0	362	0	4.7	0	0	87.0	0	0	265	0	0	19	246	0	4.7	1	0	86.0	0	0	21-09-2019
Tunisia	68	0	0	0	68	0	2.6	0	0	80.9	0	0	56	0	0	7	48	1	2.8	0	0	73.2	0	0	20-09-2019
U.A.E	40	0	0	0	40	0	3.2	0	0	97.5	0	0	28	0	0	11	17	0	3.1	2	0	85.7	0	0	23-09-2019
Yemen	730	0	0	140	590	0	5.2	140	129	91.6	0	0	528	0	0	422	106	0	5.2	263	242	90.3	0	0	21-09-2019
EMR	21925	33	1	146	21730	15	8.7	146	129	89.8	33	0	16993	82	0	1935	14972	4	9.3	614	276	90.6	82	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	829	6	0	36	151	7
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	375	0	0	7	40	33
IRN	145	0	0	3	6	0	116	0	0	3	4	0
IRQ	811	0	0	22	93	9	404	0	0	7	14	21
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	49	0	0	1	0	19
OMA	70	0	0	2	16	0	34	0	0	2	14	0
PAK	4200	3	0	207	882	0	3683	7	0	154	645	175
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	783	0	1	26	90	50
SUD	350	0	0	3	24	88	261	0	0	0	21	55
SYR	670	0	0	8	17	0	572	0	0	10	27	45
TUN	1	0	0	0	0	0	15	0	0	0	2	1
UAE	0	0	0	0	0	0	0	0	0	0	0	0
YEM	1558	0	0	0	0	1459	323	0	0	0	0	324
EMR	10759	7	10	360	1471	1609	7471	13	1	246	1011	732

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	7	6-Sep-19
2019 Total		13	6-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	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	
2019 Total				6	06-Mar-19	02-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 (38/2019) / Ending on : (22/09/2019)

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										VDPV
Afghanistan	RRL Pakistan	2631	195	21	410	1900	96	9	13	147						136		1	1	1	6	14%	95%	100%	98%	22/09/2019
Bahrain	NPL Oman / CDC																									16/09/2019
Djibouti	NPL Kenya / CDC	3						3																		22/09/2019
Egypt***	RRL Egypt	893	33	5	82	717	42	14		14						19			8	3		10%	95%	100%	99%	19/09/2019
Iran	NPL Iran / CDC	684	10		15	644	12	3		2						7		1				3%	100%	100%	99%	21/09/2019
Iraq	RRL Egypt	797	11		105	620	53	8		5						9						12%	100%	100%	69%	19/09/2019
Jordan	NPL Jordan / RRL EGYPT	91			12	77	2	1														14%	100%			22/09/2019
Kuwait	RRL Kuwait / RIVM	32			2	25																8%	85%		100%	22/09/2019
Lebanon	NPL Jordan / RRL EGYPT	55	1		6	48									1							11%	100%	100%	0%	22/09/2019
Libya	RRL Tunisia / RIVM	67			1	58	8															1%	98%		98%	20/09/2019
Morocco	NPL Morocco / RRL Tunisia	140	1		2	130	7									1						1%	100%	100%	95%	20/09/2019
Oman	NPL Oman / CDC	14			3	10		1														28%	100%		100%	16/09/2019
Pakistan	RRL Pakistan	9682	381	43	1593	7217	367	65	61 *	226						224		2	5	1	4	14%	97%	99%	97%	22/09/2019
Palestine & UNRWA		42			6	32	2	2														16%	35%		100%	22/09/2019
Qatar	NPL Oman / CDC	4				4																0%	100%		100%	16/09/2019
Saudi Arabia	NPL Saudi Arabia / CDC	169	4		1	152	10	2								4						1%	95%	100%	100%	19/09/2019
Somalia	NPL Kenya / CDC	259	14		50	181	7	7		4			6	3		4						20%	14%		98%	22/09/2019
Sudan	NPL Sudan / RRL Egypt	379	6		53	300	19	1		5						2						13%	62%	100%	63%	22/09/2019
Syria	NPL Syria / RRL Egypt	256	12		13	215	12	4		5						9						6%	100%	100%	50%	19/09/2019
Tunisia	RRL Tunisia	56			3	47	6															7%	100%		98%	20/09/2019
U.A.E	NPL Oman / CDC	21			3	18																14%	100%		43%	16/09/2019
Yemen	NPL Kenya / CDC																									21/09/2019
Total EMR 2019		16275	668	69	2360	12395	643	125	74	408			6	3		416		4	14	5	10	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

* Notification received from National EOC Pakistan of 2 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	134
	WILD	20	2	42	83	36
AFG Total		149	185	316	336	170
EGY	NEGATIVE	493	528	522	540	527
	PENDING	2				21
	VDPV2	3	1			
EGY Total		498	529	522	540	548
IRN	NEGATIVE			6	54	53
	WILD					3
IRN Total				6	54	56
JOR	NEGATIVE		2	32	36	24
	PENDING					2
JOR Total			2	32	36	26
LEB	NEGATIVE		4	27	45	29
	PENDING					3
LEB Total			4	27	45	32
PAK	NEGATIVE	347	462	523	534	268
	PENDING					28
	WILD	79	59	105	139	224
	WILD & VDPV2	5	3	1		
	VDPV2	8	5	4		
PAK Total		439	529	633	673	520
SOM	NEGATIVE		34	181	39	
	VDPV2		2	20	1	
	VDPV3			12		
SOM Total			36	213	40	
SUD	NEGATIVE		15	31		
	PENDING					8
SUD Total					15	39
SYR	NEGATIVE		4	102	117	
	PENDING					11
SYR Total			4	102	128	
Grand Total		1086	1249	1576	2014	1559

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	26-Dec			
				AFG Total				83	8-Jan	26-Dec
				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			
	CDA	7	10-Jan				10-Nov			
	PUNJAB	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			
	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							
BAJOUR	5	19-May	25-Oct							
WAZIR-5	2	26-Nov	27-Dec							
KHYBER PAKHTOONKHUWA	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				
SOM Total				32	4-Jan	11-Oct				
2018 Total				254	1-Jan	27-Dec				
2019	AFG	WILD	HILMAND	LASHKARGAH	5	23-Feb	28-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	28-Aug			
	PAK	WILD	BALOCHISTAN	KHUZDAR	1	20-Mar	20-Mar			
				LORALAI	1	17-Mar	17-Mar			
				PISHIN	4	2-Feb	2-Sep			
				QUETTA	25	1-Jan	1-Sep			
				DBGUTI	1	19-Aug	19-Aug			
				KABDULAH	10	1-Jan	1-Sep			
				ISLAMABAD	CDA	3	12-Apr	21-Aug		
				FAISALABAD	4	3-Jan	3-Sep			
				PUNJAB	LAHORE	38	5-Jan	5-Sep		
				MULTAN	4	18-Feb	8-May			
				RAWALPINDI	9	10-Jan	22-Jul			
				DGKHAN	1	8-Apr	8-Apr			
				SINDH	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			
				KHIGIQBAL	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-5	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							
PAK Total				224	1-Jan	5-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				264	1-Jan	5-Sep				

Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2019 - 22/09/2019

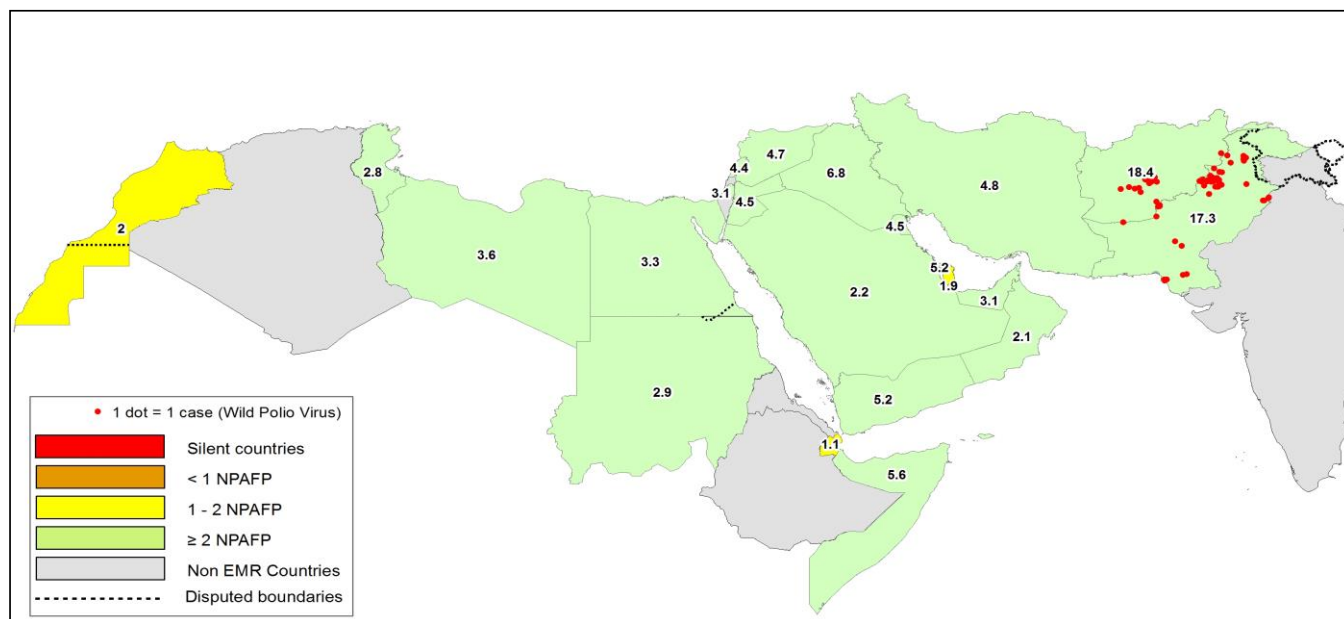


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2019 - 22/09/2019

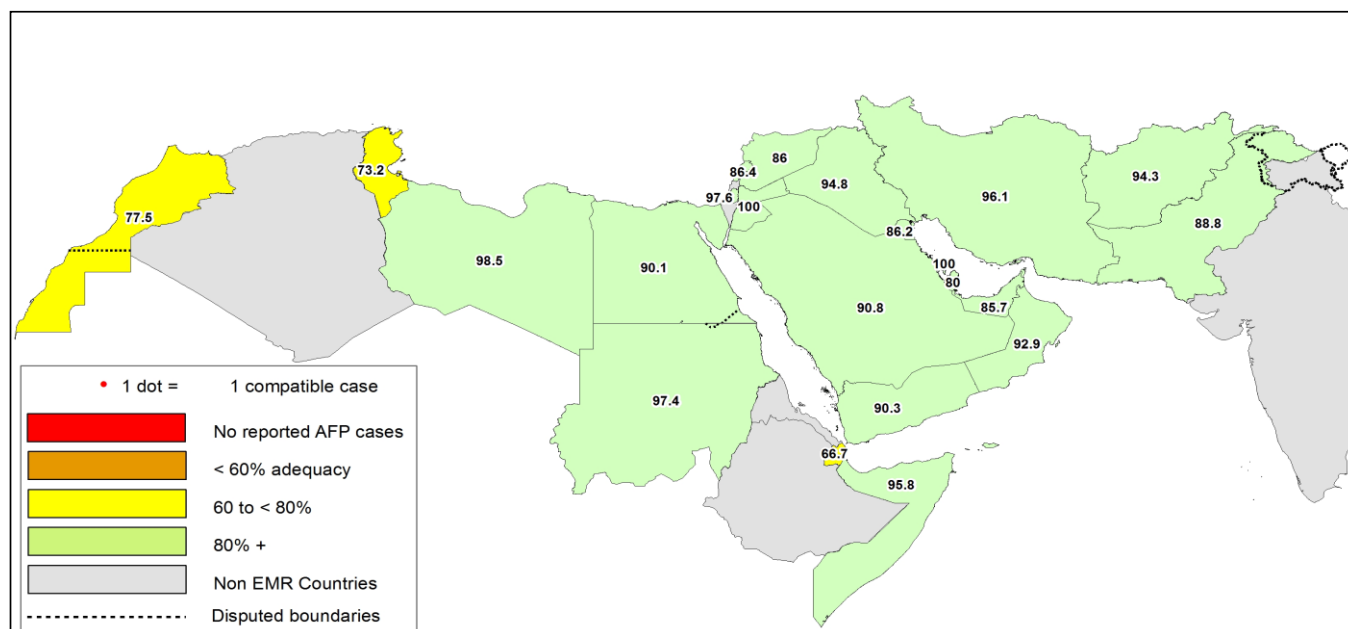


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2018 - 2019

Year	COUNTRY	Count	First Case	Last Case
2018	AFG	21	1-Jan-18	6-Nov-18
	PAK	12	8-Mar-18	31-Dec-18
2018 Total		33	1-Jan-18	31-Dec-18
2019	AFG	16	4-Jan-19	2-Aug-19
	PAK	66	15-Jan-19	28-Aug-19
2019 Total		82	4-Jan-19	28-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 - 22/09/2019

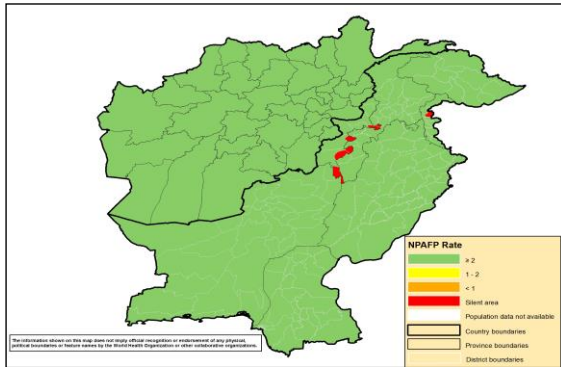


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2019 - 22/09/2019

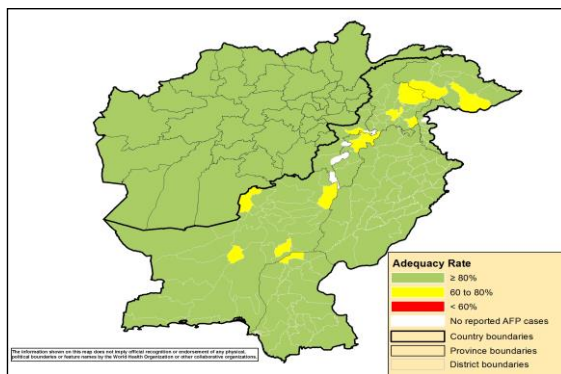
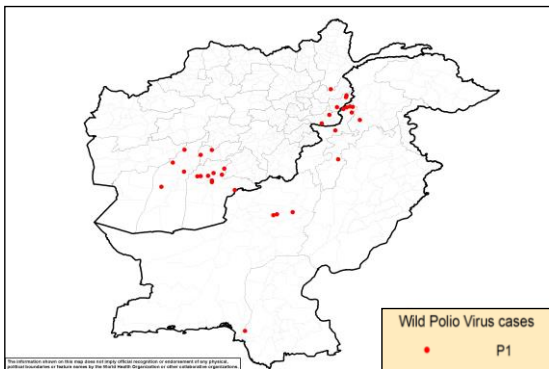
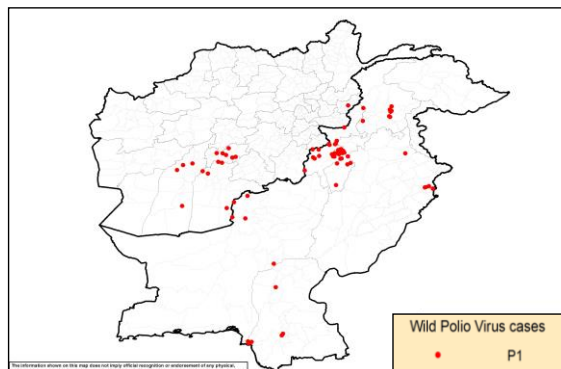


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

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



5(b) 01/01/2019 - 22/09/2019



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 38, ending 22 September 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	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

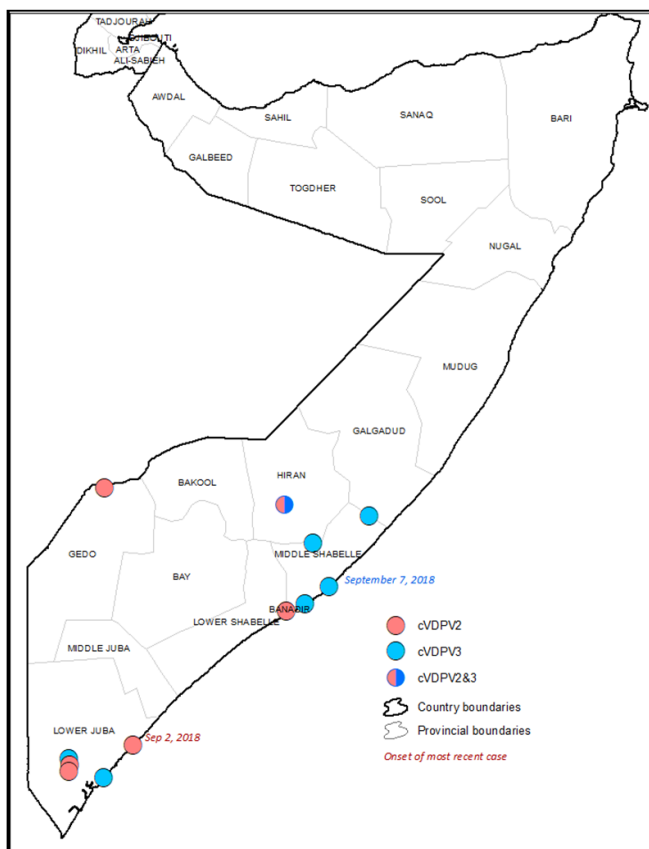
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2018	KP TRIBAL DISTRICTS	BAJOUR	5	1-Sep-18	31-Dec-18
		KHYBER	1	25-Sep-18	25-Sep-18
	KHYBER PAKHTUNKHWA	LAKKIMRWT	1	16-Dec-18	16-Dec-18
		CHARSADA	1	1-Aug-18	1-Aug-18
	SINDH	KHIGADAP	1	22-Sep-18	22-Sep-18
	BALUCHISTAN	DUKKI	3	8-Mar-18	18-May-18
2018 Total			12	8-Mar-18	31-Dec-18
2019	KHYBER PAKHTUNKHWA	LAKKIMRWT	6	27-May-19	28-Aug-19
		BANNU	22	15-Jan-19	2-Aug-19
		TORGHAR	6	25-May-19	2-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
	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	8-Aug-19
		QUETTA	1	6-Jul-19	6-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			66	15-Jan-19	28-Aug-19

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

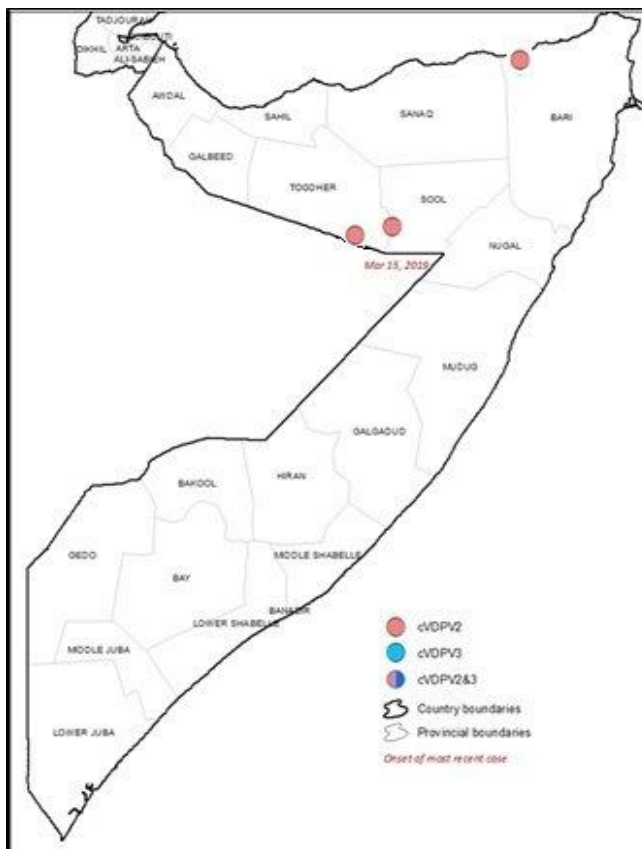
COUNTRY	YEAR	PROVINCE	DISTRICT	cVDPV2			cVDPV3			
				Count	First Case	Last Case	Count	First Case	Last Case	
SOM	2019	BARI	BOSSASO	1	08-May-19	08-May-19				
		TOGDHER	BUHODLE	1	21-Apr-19	21-Apr-19				
		SOOL	LAS ANOD	1	15-Mar-19	15-Mar-19				
	Total 2019				3	15-Mar-19	8-May-19			
	2018	LOWER JUBA	JAMAAME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

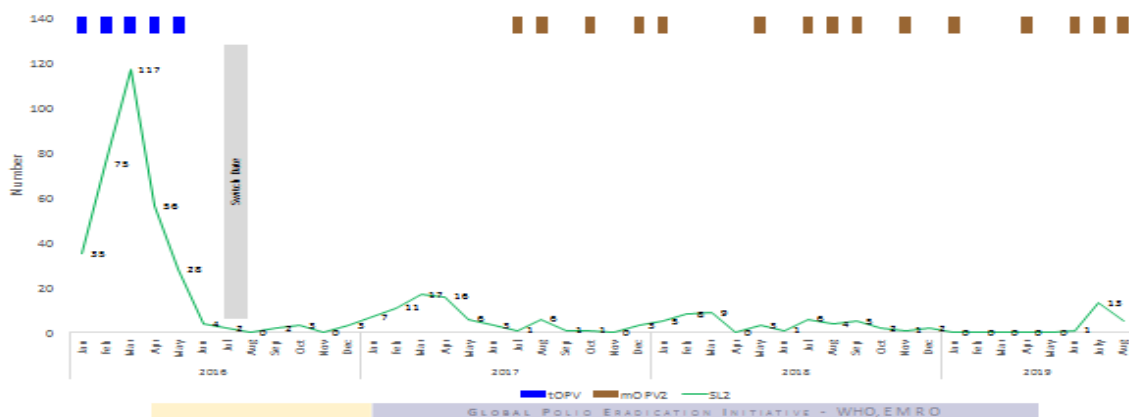
6(a) 01/01/2018 - 31/12/2018



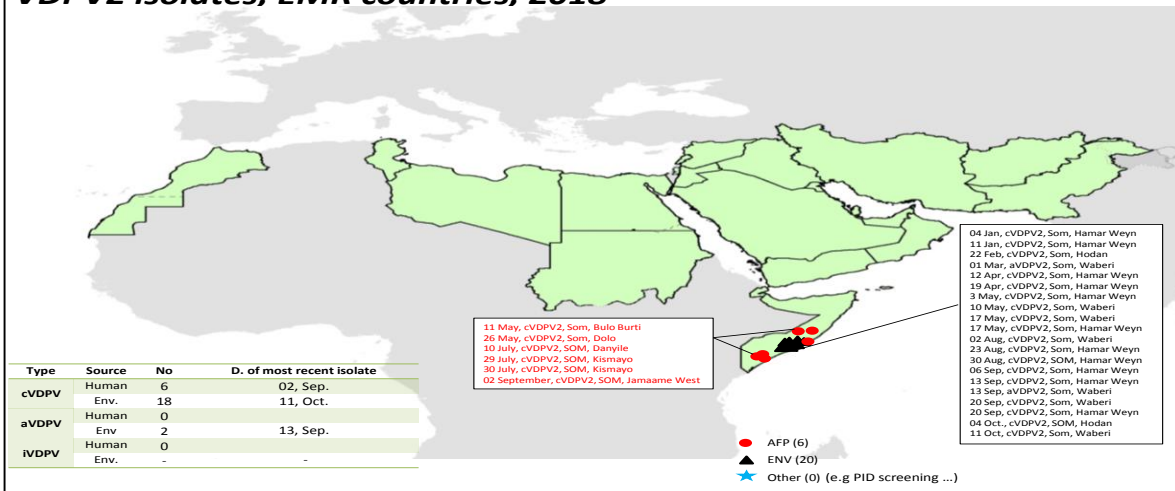
6(b) 01/01/2019 - 22/09/2019



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

