

Highlights of Polio Fax Bulletin No. 1088 for Week 32 2019

I. Poliovirus Transmission

1. **Endemic countries (PAKISTAN & AFGHANISTAN):** Five new wild poliovirus type-1 (WPV1) cases reported this week from Pakistan; and seven new positive environmental samples, which include three from Afghanistan and four from Pakistan were also reported this week.

a. *Human samples:* Five new WPV1 cases reported this week from Pakistan. Total WPV1 cases in 2019 to date are 65 (12 from Afghanistan and 53 from Pakistan). This compares with 18 cases in 2018 in the same period (Afghanistan – 14 and Pakistan – 4).

- **Afghanistan:**

In 2019 to date, 12 WPV1 cases are reported from Afghanistan. They include five cases from Hilmand province, four cases from Uruzgan province, two from Kandahar province and one from Kunar province. The most recent case has onset of paralysis on 26 May 2019.

Advanced notification: An advanced notification of a new WPV1 case from Afghanistan has been reported by the lab this week. Details of the new case will be included in next week bulletin of the polio fax. Case has date of onset of paralysis on 16 July 2019 and is from Uruzgan province.

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

- Case (1): The first case was reported from North Waziristan district, Khyber Pakhtunhwa Tribal Districts (KP TD), with date of onset 13 July 2019. The case is a 24-month old male child. The child received reportedly a total of 7 Oral Polio Vaccine (OPV) doses through supplementary immunization activities (SIAs).

- Case (2): The second case was reported from Bannu district, KP, with date of onset 13 July 2019. The case is a 30-month old female child. The child received reportedly a total of 7 OPV doses through SIAs.

- Case (3): The third case was reported from Bannu district, KP, with date of onset 14 July 2019. The case is a 36-month old male child. The child received a reportedly total of 7 OPV doses out through SIAs.

- Case (4): The fourth case was reported from Bannu district, KP, with date of onset 19 July 2019. The case is a 7-month old female child. The child reportedly received a total of 10 OPV doses out of which 3 through routine and 7 through SIAs.

- Case (5): The fifth case was reported from Charsada district, KP province, with date of onset 21 July 2019. The case is a 22-month old female child. The child received reportedly a total of 10 OPV doses out of which 3 were from routine and 7 from SIAs. Also the child received an IPV dose in March 2018 during an extensive outreach session.

In 2019 to date, 53 WPV1 cases are from Pakistan. They include 32 from KP, 9 from KPTD, 5 from Punjab province, 4 from Balochistan province and 3 from Sindh province. The most recent case has onset of paralysis on 21 July 2019.

- b. *Environmental samples*: Seven new WPV1 positive environmental samples were reported this week, three from Afghanistan and four from Pakistan.
- Afghanistan: The three new WPV1 positive environmental samples reported this week include two from Kandahar province (both from Kandahar district); and one from Hilmand province (from Lashkargah district). In 2019 to date, there are 29 positive environmental samples with most recent positive sample collected on 24 July 2019.
 - Pakistan: The four new WPV1 positive environmental samples reported this week include three from Punjab (one each from Faisalabad, Multan and Rawalpindi districts); and one from Balochistan province (from Quetta district). In 2019 to date, there are 188 positive environmental samples with most recent positive sample collected on 22 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, 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 0.4 and percentage of AFP cases with adequate stool specimens of 0%.
- Morocco has a percentage of AFP cases with adequate stool specimens of 77.5%.
- Qatar has a non-polio AFP rate of 1.4 and percentage of AFP cases with adequate stool specimens of 66.7%.
- 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.

World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

13-Aug-19

Week 32, ending 11 August 2019

Number 1088

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

Country	Reported AFP cases by week of onset - Week (32/19) / Ending on : 11/08/2019														
	Total AFP 2017	Total AFP 2018	Total AFP to date, 2019	W21 26 May 19	W22 02 Jun 19	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
Afghanistan	3094	3378	2294	80	58	63	87	87	83	78	75	78	66	48	
Bahrain	18	35	11	0	1	1	1	0	0	0	0	1	0	0	
Djibouti	4	0	1	0	0	0	0	0	1	0	0	0	0	0	
Egypt	1242	1246	783	22	19	18	36	29	20	33	28	23	27	5	
Iran	820	896	561	16	15	19	13	17	15	20	18	17	4	2	
Iraq	699	1023	663	16	21	14	29	27	20	30	18	21	21	11	
Jordan ****	116	115	82	3	1	3	2	2	3	0	2	0	0	0	
Kuwait	69	72	25	0	1	1	1	2	1	1	0	0	0	0	
Lebanon ****	80	95	55	1	2	2	2	1	0	1	2	2	2	1	
Libya	88	122	46	2	0	4	2	0	1	0	1	3	1	0	
Morocco	143	212	129	5	1	2	5	5	3	3	4	7	3	1	
Oman	40	28	12	0	0	2	0	1	0	1	0	0	0		
Pakistan	10319	12276	8203	262	216	235	335	325	269	308	307	269	241	91	0
Palestine ****	43	44	35	0	3	3	1	2	0	1	5	0	0	0	
Qatar	18	10	3	0	1	0	0	0	0	0	0	1	0	0	
Saudi Arabia	276	241	128	1	1	1	1	1	1	0	0	0	0		
Somalia	345	353	218	6	1	9	9	6	8	8	6	7	4	0	
Sudan	570	579	310	2	4	5	12	19	11	10	23	8	14	3	
Syria ****	362	362	237	4	6	1	9	5	4	8	10	7	6	4	0
Tunisia	67	68	45	3	4	1	2	2	0	3	0	2	2	0	
U.A.E	58	40	21	1	0	0	0	0	0	1	1	0	0	0	
Yemen	713	730	446	11	12	10	16	15	18	28	24	9	0		
Total EMR	19184	21925	14308	435	367	394	563	546	458	534	524	455	391	166	0

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2017	Total year 2018	11/08		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	12	3	2	1	0	2	1	3	1	5			
Bahrain	0	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	0
Egypt	0	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	0
Iraq	0	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	0	0	0	0	0	0	0
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pakistan	8	12	4	53	3	1	0	4	4	2	0	11	11	16	9	
Palestine ****	0	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	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	0
Yemen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total EMR	22	33	18	65	6	3	1	4	6	3	3	12	16	16	9	0

**** UNRWA cases are included with those of country of residence

AFP SURVEILLANCE

Week 32, ending 11 August 2019

13-Aug-19

Number 1088

Table 3: Investigation of AFP cases with paralysis onset in 2018 & 2019 up to Week (32/19) / Ending on : 11/08/2019

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	2294	12	0	237	2045	0	18.4	21	3	94.2	12	0	08/08/2019
Bahrain	35	0	0	0	35	0	12.1	0	0	97.1	0	0	11	0	0	11	0	0	6.2	7	7	100.0	0	0	04/08/2019
Djibouti	0	0	0	0	0	0	0.0	0	0		0	0	1	0	0	1	0	0	0.4	0	0	0.0	0	0	07/08/2019
Egypt	1246	0	0	2	1243	1	3.2	2	0	93.2	0	0	783	0	0	125	658	0	3.4	4	0	87.2	0	0	01/08/2019
Iran	896	0	0	0	894	2	4.6	0	0	97.0	0	0	561	0	0	22	539	0	4.8	0	0	95.9	0	0	10/08/2019
Iraq	1023	0	0	0	1023	0	6.7	0	0	89.9	0	0	663	0	0	58	605	0	7.1	6	0	95.0	0	0	08/08/2019
Jordan	115	0	0	0	115	0	4.1	0	0	100.0	0	0	82	0	0	2	80	0	4.8	0	0	100.0	0	0	08/08/2019
Kuwait	72	0	0	0	72	0	8.1	0	0	90.3	0	0	25	0	0	0	25	0	4.6	0	0	84.0	0	0	04/08/2019
Lebanon	95	0	0	4	91	0	5.1	4	1	92.6	0	0	55	0	0	11	44	0	4.9	6	0	85.5	0	0	08/08/2019
Libya	122	0	0	0	122	0	4.9	0	0	96.7	0	0	46	0	0	7	39	0	3.0	0	0	97.8	0	0	10/08/2019
Morocco	212	0	0	1	211	0	2.4	1	0	77.8	0	0	129	0	0	56	73	0	2.4	31	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	2.1	0	0	83.3	0	0	28/07/2019
Pakistan	12276	12	1	0	12263	0	15.7	0	0	87.0	12	0	8203	53	0	754	7396	0	17.1	97	0	88.9	53	0	11/08/2019
Palestine	44	0	0	0	44	0	2.3	0	0	90.9	0	0	35	0	0	15	20	0	3.0	0	0	100.0	0	0	04/08/2019
Qatar	10	0	0	0	10	0	2.8	0	0	100.0	0	0	3	0	0	2	1	0	1.4	0	0	66.7	0	0	04/08/2019
Saudi Arabia	241	0	0	0	241	0	3.0	0	0	95.9	0	0	128	0	0	46	82	0	2.6	36	4	90.6	0	0	01/08/2019
Somalia	353	0	0	0	341	12	5.5	0	0	97.7	0	0	218	0	0	22	193	3	5.6	1	0	97.7	0	0	04/08/2019
Sudan	579	0	0	0	579	0	3.2	0	0	97.2	0	0	310	0	0	25	285	0	2.8	4	3	97.7	0	0	08/08/2019
Syria	362	0	0	0	362	0	4.7	0	0	87.3	0	0	237	0	0	25	212	0	5.0	1	0	86.1	0	0	11/08/2019
Tunisia	68	0	0	0	68	0	2.6	0	0	80.9	0	0	45	0	0	8	36	1	2.6	2	2	82.2	0	0	09/08/2019
U.A.E	40	0	0	0	40	0	3.2	0	0	97.5	0	0	21	0	0	5	16	0	2.7	2	0	81.0	0	0	08/08/2019
Yemen	730	0	0	152	578	0	5.2	152	129	91.6	0	0	446	0	0	441	5	0	5.2	283	258	91.0	0	0	03/08/2019
EMR	21925	33	1	159	21717	15	8.7	159	130	89.8	33	0	14308	65	0	1874	12365	4	9.3	501	287	90.5	65	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

World Health Organization – Regional Office for Eastern Mediterranean
AFP SURVEILLANCE
Week 32, ending 11 August 2019

13-Aug-19
Number 1088

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	694	4	0	29	128	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	309	0	0	7	31	29
IRN	145	0	0	3	6	0	107	0	0	2	4	0
IRQ	811	0	0	22	93	9	364	0	0	7	11	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	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	3067	6	0	141	478	181
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	661	0	1	13	80	63
SUD	350	0	0	3	24	88	209	0	0	0	9	62
SYR	670	0	0	8	17	0	509	0	0	10	24	43
TUN	1	0	0	0	0	0	10	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	290	0	0	0	0	291
EMR	10758	7	10	360	1471	1609	6316	10	1	211	778	744

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

Table 5: Laboratory investigation of AFP cases with paralysis onset in 2019 up to Week (32/2019) / Ending on : (11/08/2019)

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		NPEY 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	2267	150	21	341	1620	135		11 *	110						110		1	1		4	14%	99%	100%	98%	11/08/2019
Bahrain	NPL Oman / CDC																									05/08/2019
Djibouti	NPL Kenya / CDC	1						1																		29/07/2019
Egypt***	RRL Egypt	773	30	3	62	624	43	11		14						19			5	2		9%	95%	100%	99%	08/08/2019
Iran	NPL Iran / CDC	561	8		10	523	2	18		2						5		1				3%	100%	100%	99%	03/08/2019
Iraq	RRL Egypt	666	10		81	528	41	6		4						6						11%	100%	100%	75%	08/08/2019
Jordan	NPL Jordan / RRL EGYPT	84			12	70	1	2														14%	100%			04/08/2019
Kuwait	RRL Kuwait / RIVM	31			2	25		4														8%	85%		100%	08/08/2019
Lebanon	NPL Jordan / RRL EGYPT	50	1		4	43	1	1								1						9%	100%	100%	0%	04/08/2019
Libya	RRL Tunisia / RIVM	47			1	42	4															1%	100%		98%	09/08/2019
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%	05/08/2019
Pakistan	RRL Pakistan	8071	347	39	1167	6041	449	21	50	207						213			5	1	4	13%	100%	99%	97%	11/08/2019
Palestine & UNRWA		35			5	29		1														15%	38%		100%	04/08/2019
Qatar	NPL Oman / CDC	2				2																0%	100%		100%	05/08/2019
Saudi Arabia	NPL Saudi Arabia / CDC	135	4			123		8								4						1%	95%	100%	100%	08/07/2019
Somalia	NPL Kenya / CDC	218	9		42	147		20		4						3					2	21%	16%		99%	04/08/2019
Sudan	NPL Sudan / RRL Egypt	294	5		28	154	10	97		1						2						12%	77%	100%	25%	04/08/2019
Syria	NPL Syria / RRL Egypt	231	12		9	197	11	2		5						9						6%	100%	100%	50%	01/08/2019
Tunisia	RRL Tunisia	41			3	32	6															10%	100%		100%	09/08/2019
U.A.E	NPL Oman / CDC	17			3	14																18%	100%		53%	05/08/2019
Yemen	NPL Kenya / CDC																									03/08/2019
Total EMR 2019		13658	577	63	1774	10335	710	193	61	347					3	373		2	11	3	10	12%	97%	100%	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

** This indicator reflects surveillance and laboratory activities

* Advance notification of a new WPV1 from Afghanistan, from Chora district, Uruzgan province, with date of onset 16/07/2019

Somalia in 2018 so far 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	103
	PENDING					17
	WILD	20	2	42	83	29
AFG Total		149	185	316	336	149
EGY	NEGATIVE	495	528	522	540	394
	PENDING					82
	VDPV2	3	1			
EGY Total		498	529	522	540	476
IRN	NEGATIVE			6	54	36
	PENDING					3
	WILD					3
IRN Total				6	54	42
JOR	NEGATIVE		2	32	36	19
	PENDING					2
JOR Total			2	32	36	21
LEB	NEGATIVE		4	27	45	23
	PENDING					5
LEB Total			4	27	45	28
PAK	NEGATIVE	347	462	523	534	238
	PENDING					19
	WILD	79	59	105	139	188
	WILD & VDPV2	5	3	1		
	VDPV2	8	5	4		
PAK Total		439	529	633	673	445
SOM	NEGATIVE			34	181	27
	PENDING					4
	VDPV2				2	20
	VDPV3					12
SOM Total				36	213	32
SUD	NEGATIVE				15	23
	PENDING					12
SUD Total					15	35
SYR	NEGATIVE			4	102	97
	PENDING					11
SYR Total				4	102	108
Grand Total		1086	1249	1576	2014	1336

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/Jan	25/Jan			
				KABUL	3	26/Feb	26/Jan			
				KANDAHAR	42	8/Jan	26/Dec			
				KHOST	1	25/Sep	25/Sep			
				KUNAR	2	24/Apr	25/Sep			
				BEHSUD	3	28/Jan	25/Oct			
				JALALABAD	19	27/Jan	26/Dec			
				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			
	ISLAMABAD	7	10/Jan				10/Nov			
	PUNJAB	12	11/Jan				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							
WAZIR-S	2	26/Nov	27/Dec							
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	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	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	19	1/Jan	20/Jul			
				KABDULAH	8	1/Jan	19/Apr			
				ISLAMABAD	2	12/Apr	2/May			
				PUNJAB	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			
				SINDH	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/Jan			
				KHIGADAP	17	8/Jan	12/Jul			
				KHIGQBAL	5	11/Apr	19/Jan			
				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							
BANNU	6	28/Jan	27/Jan							
DIKHAN	4	8/Jan	11/Jan							
KOHAT	1	27/Feb	27/Feb							
MARDAN	4	16/Mar	15/Jan							
PESHAWAR	8	11/Jan	10/Jul							
PAK Total				188	1/Jan	22/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				221	1/Jan	24/Jul				

Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2019 - 11/08/2019

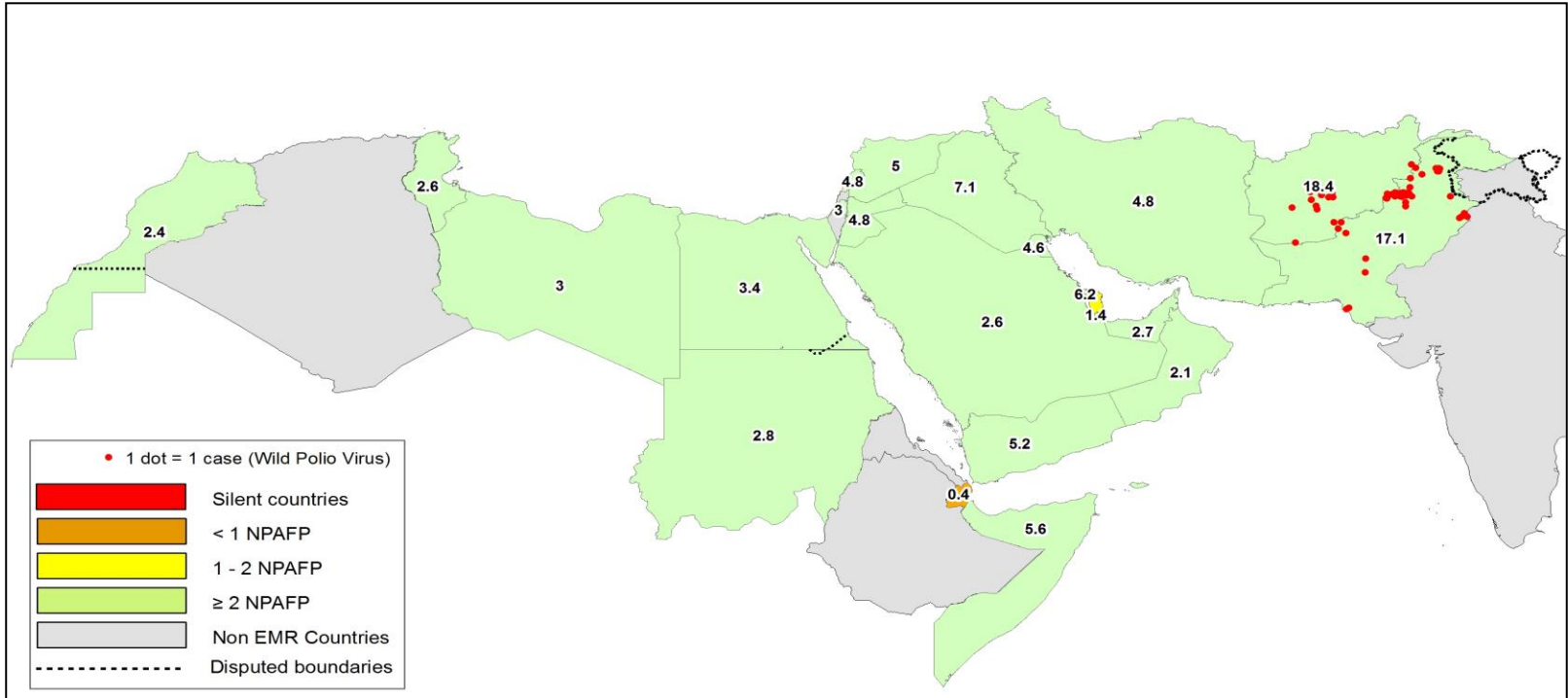


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2019 - 11/08/2019

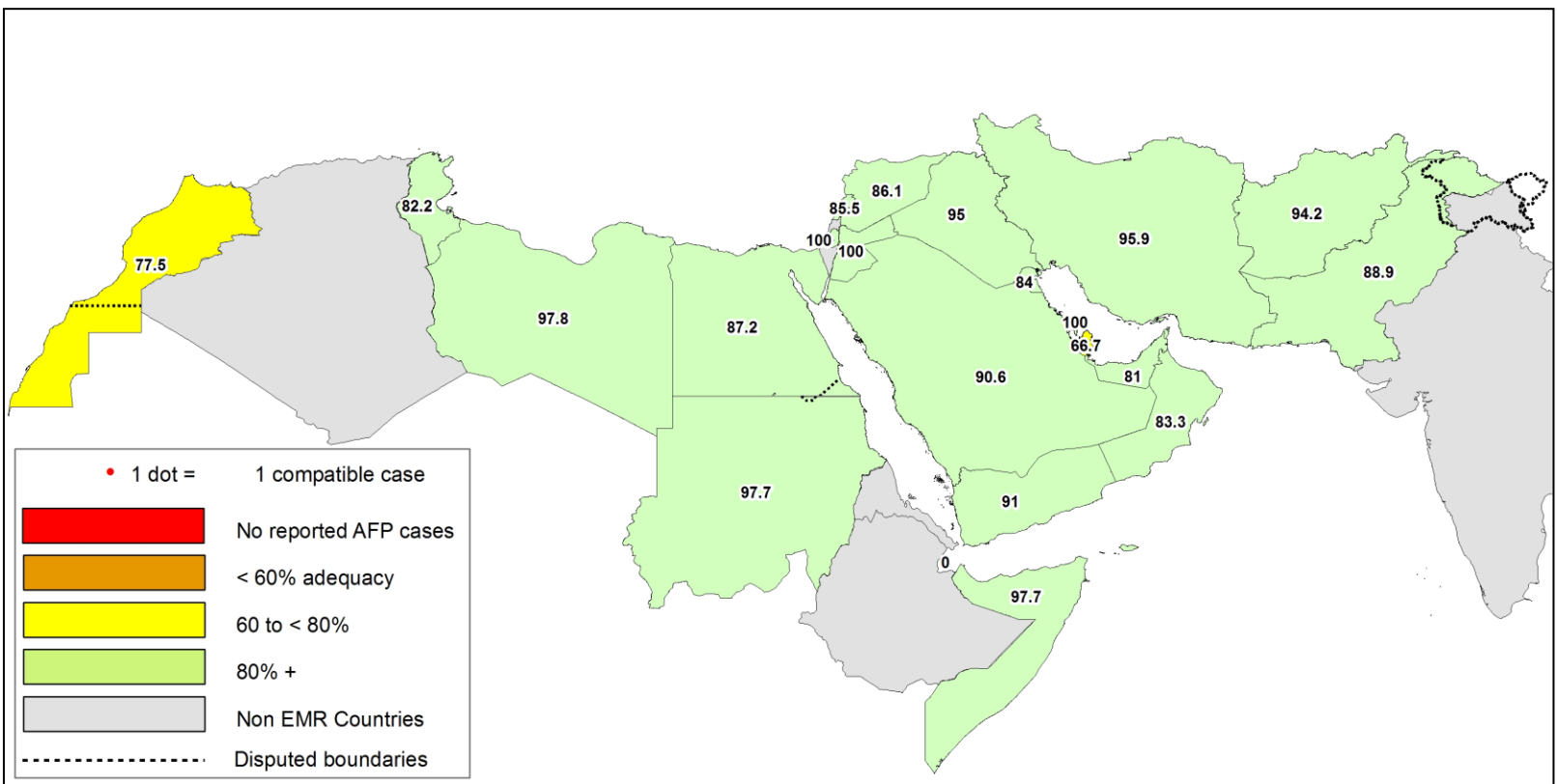


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2018 - 2019

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	12	4-Jan-19	26-May-19
	PAK	53	15-Jan-19	21-Jul-19
2019 Total		65	4-Jan-19	21-Jul-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 - 11/08/2019

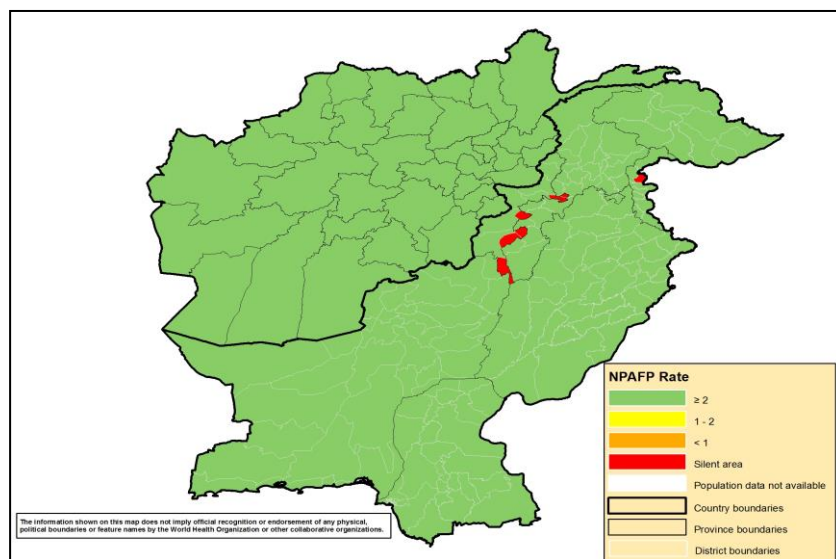


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2019 - 11/08/2019

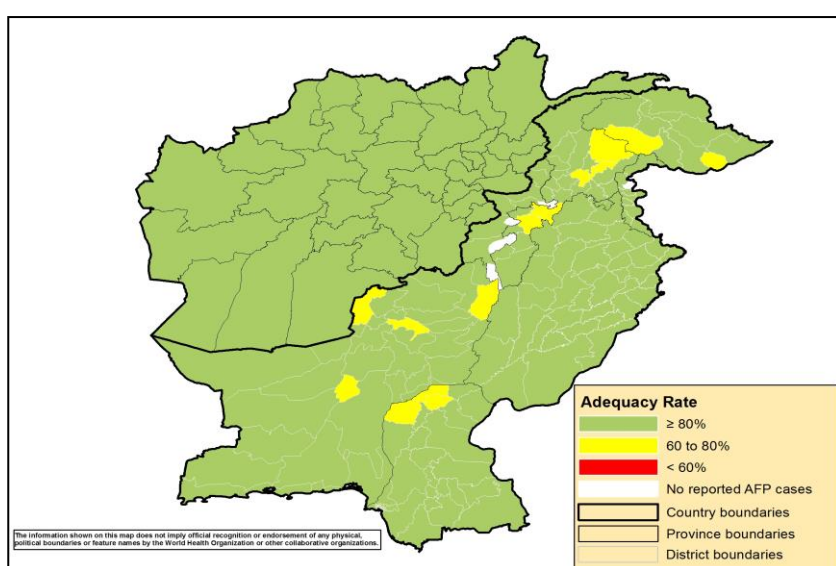
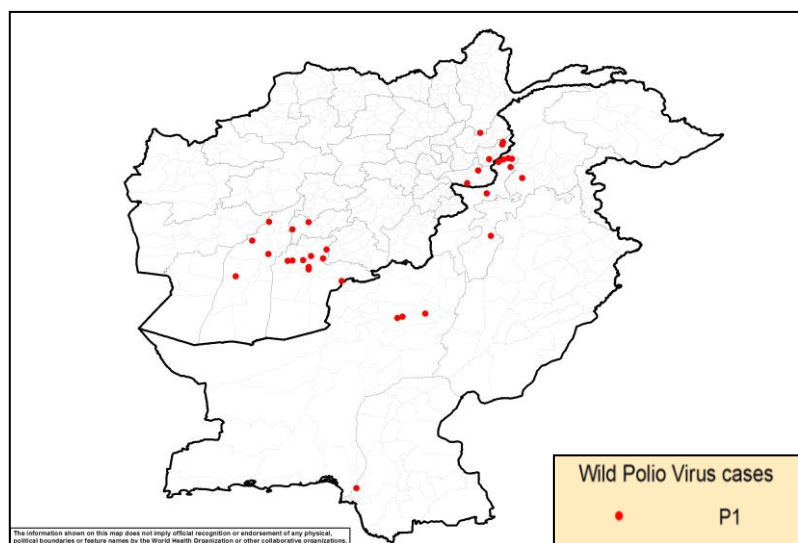
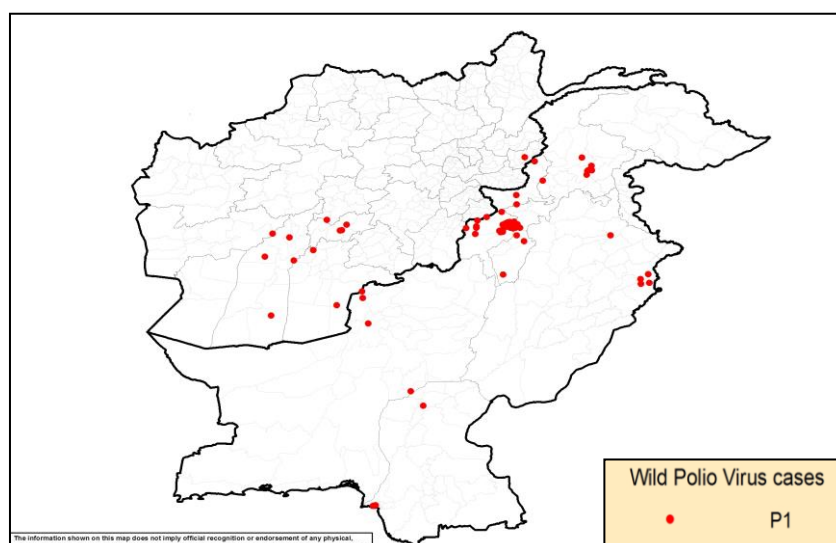


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

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



5(b) 01/01/2019 - 11/08/2019



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 32, ending 11 August 2019

13-Aug-19

Number 1088

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	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
	URUZGAN	TIRINKOT	2	19-May-19	19-May-19
		CHORA	1	20-Mar-19	20-Mar-19
		SHAHID-E-HASSAS	1	25-Feb-19	25-Feb-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			12	4-Jan-19	26-May-19

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

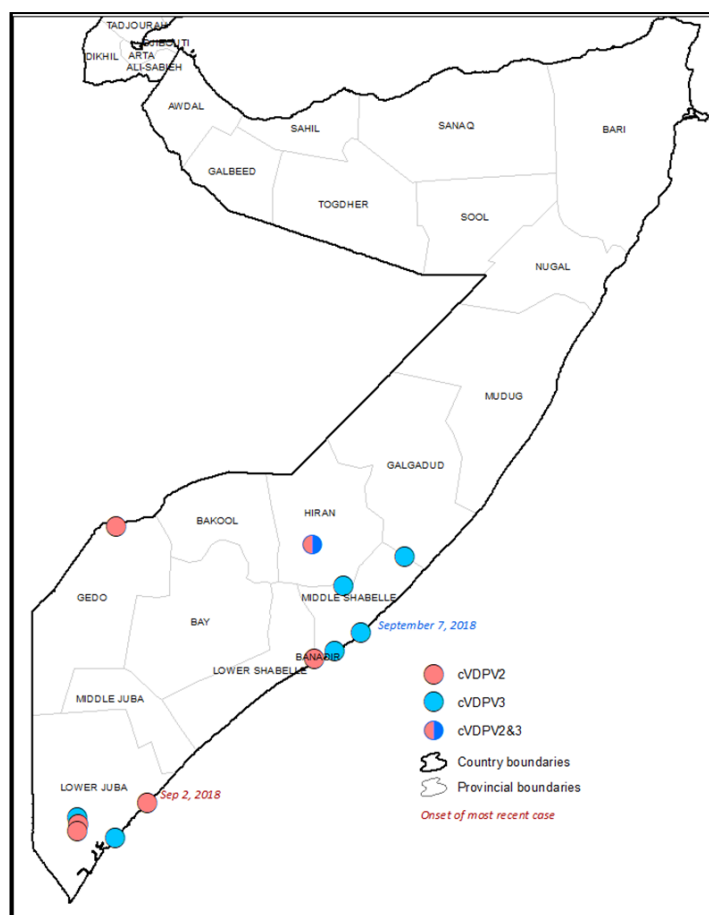
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2018	KP TRIBAL DISTRICTS	BAJOUR	5	1-Sep-18	31-Dec-18
		KHYBER	1	25-Sep-18	25-Sep-18
	KHYBER PAKHTOONKHWA	LAKKIMRWT	1	16-Dec-18	16-Dec-18
		CHARSADA	1	1-Aug-18	1-Aug-18
	SINDH	KHIGADAP	1	22-Sep-18	22-Sep-18
	BALUCHISTAN	DUKKI	3	8-Mar-18	18-May-18
2018 Total			12	8-Mar-18	31-Dec-18
2019	KHYBER PAKHTOONKHWA	CHARSADA	1	21-Jul-19	21-Jul-19
		BANNU	21	15-Jan-19	19-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
		HANGU	1	20-Jan-19	20-Jan-19
	KP TRIBAL DISTRICTS	WAZIR-N	7	4-Apr-19	13-Jul-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
	SINDH	KHIGIQBAL	1	29-Apr-19	29-Apr-19
		LARKANA	1	17-Apr-19	17-Apr-19
KHILAYARI		1	25-Feb-19	25-Feb-19	
2019 Total			53	15-Jan-19	21-Jul-19

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

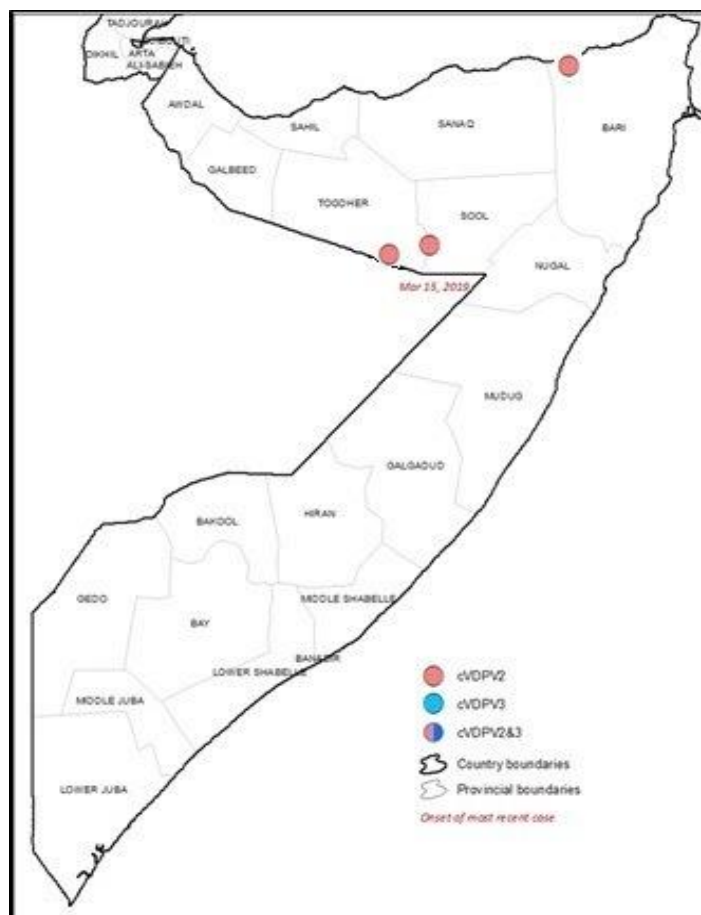
COUNTRY	YEAR	PROVINCE	DISTRICT	cVDPV2			cVDPV3			
				Count	First Case	Last Case	Count	First Case	Last Case	
SOM	2019	BARI	BOSSASO	1	08-May-19	08-May-19				
		TOGDHER	BUHODLE	1	21-Apr-19	21-Apr-19				
		SOOL	LAS ANOD	1	15-Mar-19	15-Mar-19				
	Total 2019				3	15-Mar-19	8-May-19			
	2018	LOWER JUBA	JAMAAME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

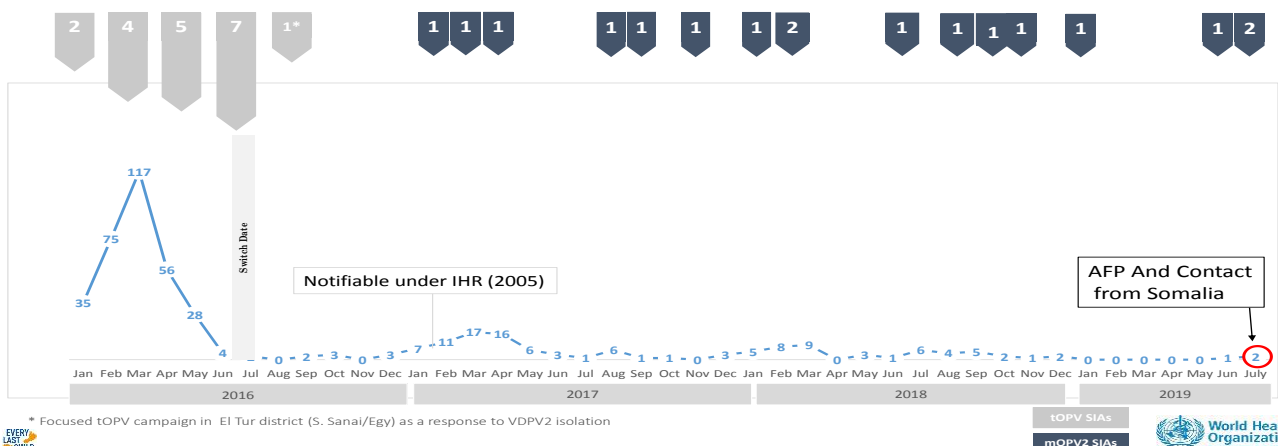
6(a) 01/01/2018 - 31/12/2018



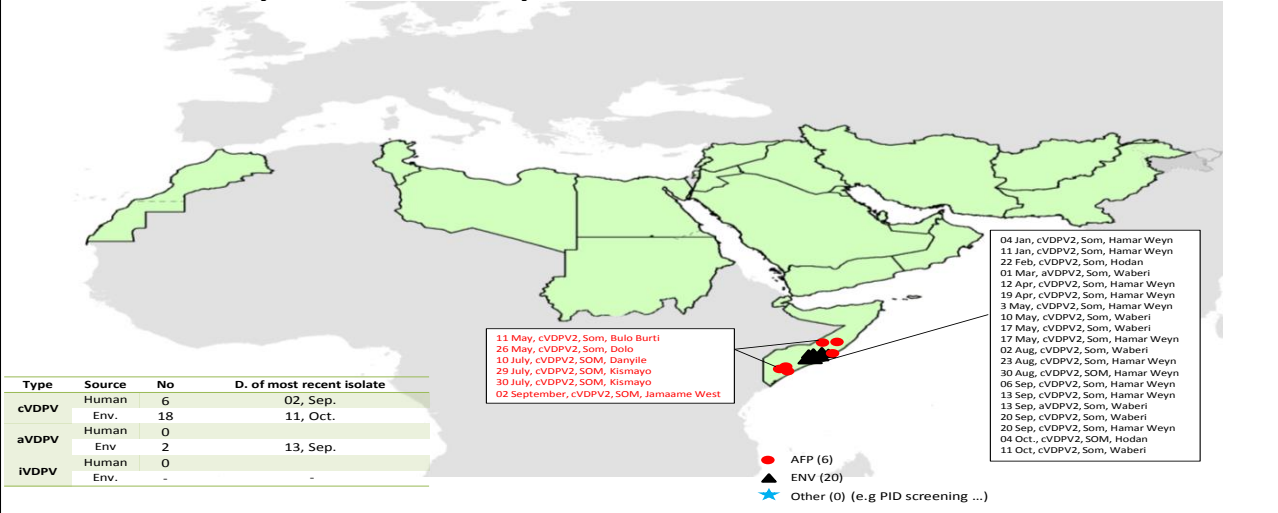
6(b) 01/01/2019 - 11/08/2019



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



VDPV2 isolates, EMR countries, 2018



VDPV2 isolates, EMR countries, 2019

