

Highlights of Polio Fax Bulletin No. 1117 for Week 09 2020

I. Wild Poliovirus Transmission

Endemic countries (PAKISTAN & AFGHANISTAN): Following was reported this week:

- 6 new WPV1 cases were reported this week, 2 from Afghanistan and 4 from Pakistan.
- 9 new cVDPV2 cases were reported this week from Pakistan.
- 14 new positive WPV1 environmental samples from Pakistan including one collected in 2019.

Advance notification: Two new WPV1 cases advance notification was received from Pakistan from Karak district, Khyber Pakhtunkhwa (KP) Province with date of onset 20/01/2020 and the other from Noshero Feroz district, Sindh province with date of onset 08/02/2020 - details will be shared in next bulletin.

a. *Human samples:* Six new WPV1 cases reported this week in 2020.

Total WPV1 cases in 2020 to date is 21 all from Pakistan. This compares with 9 cases in 2019 in the same period (3 from Afghanistan and 6 from Pakistan).

- Afghanistan: The first 2 new WPV1 cases in 2020 were reported this week and details are as follows::

Case (1): The case is from Washer district, Hilmand province, with date of onset 4 January 2020. The case is a 70-month old female child. The child reportedly received 3 OPV doses from routine and 7+ doses from supplementary immunization activities (SIAs). The index case was identified as wild by 2 positive contacts.

Case (2): The case is from Mizan district, Zabul province, with date of onset 21 January 2020. The case is an 8-month old female child. The child reportedly received 2 OPV doses from SIAs and none from routine.

In 2020, 2 WPV1 cases are reported, 1 from Hilmand and 1 from Zabul provinces. The most recent case has onset of paralysis on 21 January 2020.

- Pakistan: 4 new WPV1 cases reported this week in 2020 and details are as follows:

Case (1): The case is from DG Khan district, Punjab province, with date of onset 18 January 2020. The case is an 8-month old male child. The child reportedly received 1 OPV dose from routine and 2 doses from SIAs. The index case was identified as wild by 2 positive contacts.

Case (2): The case is from Lakki Marwat district, KP province, with date of onset 2 February 2020. The case is a 32-month old female child. The child reportedly received 7 OPV doses all from SIAs and none from routine.

Case (3): The case is from Kashmore district, Sindh province, with date of onset 3 February 2020. The case is a 30-month old male child. The child reportedly received 7+ OPV doses all from SIAs and none from routine.

Case (4): The case is from Sibbi district, Balochistan province, with date of onset 7 February 2020. The case is a 7-month old male child. The child did not receive any OPV doses neither from routine nor from SIAs.

In 2020, 21 WPV1 cases are reported, 11 from KP, 6 from Sindh, 3 from Balochistan and 1 from Punjab provinces. The most recent case has onset of paralysis on 7 February 2020.

b. *Environmental samples:* 14 new WPV1 positive environmental samples reported this week all from Pakistan – one in 2019 and 13 in 2020:

- Afghanistan: In 2020 to date, 3 WPV1 positive environmental samples including 1 combined (WPV1 and cVDPV2) with most recent sample collected on 28 January 2020.
- Pakistan: In 2020 to date, there are 57 WPV1 positive environmental samples including 2 combined (WPV1 and cVDPV2) with most recent positive sample collected on 13 February 2020. *In 2019, there are 377 WPV1 positive environmental samples including 9 combined (WPV1 and cVDPV2).*

II. Circulating Vaccine Derived Polioviruses (cVDPVs)

1. AFGHANISTAN: No new cVDPV cases or environmental samples reported this week. In 2020 to date, 2 cVDPV2 positive environmental samples including 1 combined (WPV1 and cVDPV2) were reported both from Jalalabad district, Nangarhar province, with most recent collection on 8 January 2020.

2. PAKISTAN: 9 new cVDPV2 cases, but no positive cVDPV2 environmental samples reported this week.

The nine new cases include 5 cases from Khyber district and one case each from Peshawar, Bajour and Nowshera districts from KP province and one case from Rawalpindi district from Punjab province. They have onset of paralysis between 13 January 2020 and 29 January 2020. Ages of children range between 8 months to 31 months.

In 2020 to date, 12 cVDPV2 cases reported. Cases include six cases from Khyber district, two cases each from Peshawar and Bajour districts, one case from Nowshera district from KP province, and one case from Rawalpindi district, Punjab province, with most recent onset on 29 January 2020.

Environment: In 2019, 30 positive environmental samples for cVDPV2, the recent most sample collected on 31 December 2019 (including nine combined WPV1 and cVDPV2).

In addition, cVDPV2 has been isolated from 16 healthy children and 7 contacts.

3. SOMALIA: No new cVDPV isolates from human, but one cVDPV2 environmental sample was reported from Banadir region with collection date 4 February 2020.

In 2020 to date: 4 cVDPV2 were isolated from environmental samples most recent collected on 4 February 2020.

III. Surveillance performance indicators

In 2019, 20 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 1.4
- Tunisia has a percentage of AFP cases with adequate stool specimens of 74.7%
- In Yemen there are AFP cases pending final classification more than 90 days due to delayed lab results because of delay in shipment of specimens to reference polio laboratories and high workload in the labs.

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

Country	Reported AFP cases by week of onset - Week (09/20) / Ending on : 01/03/2020														
	Total AFP 2018	Total AFP 2019	Total AFP to date, 2020	W50 15 Dec 19	W51 22 Dec 19	W52 29 Dec 19	W01 05 Jan 20	W02 12 Jan 20	W03 19 Jan 20	W04 26 Jan 20	W05 02 Feb 20	W06 09 Feb 20	W07 16 Feb 20	W08 23 Feb 20	W09 01 Mar 20
Afghanistan	3378	3768	464	63	70	67	79	66	71	86	94	54	25		
Bahrain	35	17	4	0	0	0	0	0	0	0	1	1	1	1	
Djibouti	0	5	0	0	0	0	0	0	0	0	0	0	0		
Egypt	1246	1343	156	26	18	13	29	18	21	24	23	22	9	11	
Iran	896	1070	144	24	17	24	20	22	30	22	25	16	8	1	
Iraq	1023	1157	126	20	25	13	23	20	12	22	17	22	12		
Jordan ****	115	113	15	1	1	1	1	4	0	3	0	3	2	2	
Kuwait	72	48	7	1	0	2	1	1	1	0	0	2	1	1	
Lebanon ****	89	87	17	1	3	4	4	2	2	3	2	2	1	2	
Libya	122	107	24	4	3	4	4	4	5	1	4	3	2	1	
Morocco	212	247	30	6	4	2	4	2	3	5	5	4	1	6	
Oman	28	30	3	1	0	1	0	1	0	0	2	0	0	0	
Pakistan	12276	15185	2325	356	309	292	359	321	326	345	313	287	314	134	3
Palestine ****	44	62	6	0	2	1	0	1	0	2	1	1	1	0	
Qatar	10	9	0	0	2	0	0	0	0	0	0	0	0	0	
Saudi Arabia	242	236	16	4	4	4	1	5	7	3	0	1	0	0	
Somalia	353	361	72	7	4	5	10	6	8	16	16	5	9	3	
Sudan	579	608	79	17	17	5	14	10	12	12	13	13	2	5	
Syria ****	362	377	67	16	8	3	7	6	11	11	15	6	12	2	
Tunisia	68	79	1	0	2	0	1	0	0	0	0	0	0	0	
U.A.E	40	50	10	1	0	2	2	0	1	1	3	2	1	0	
Yemen	730	780	81	19	10	25	9	16	14	11	14	13	5		
Total EMR	21920	25739	3647	567	499	468	568	505	524	567	548	457	406	169	3

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2018	Total year 2019	01/03		Confirmed polio cases by month of onset											
			2019	2020	April 2019	May 2019	June 2019	July 2019	August 2019	September 2019	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020
Afghanistan	21	29	3	2	1	5	1	2	2	3	1	7	1	2		
Bahrain	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		
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	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		
Kuwait	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		
Libya	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		
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	12	146	6	21	11	11	16	12	14	5	16	23	32	17	4	
Palestine ****	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		
Saudi Arabia	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		
Sudan	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		
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	0		
Yemen	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total EMR	33	175	9	23	12	16	17	14	16	8	17	30	33	19	4	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 2019 & 2020 up to Week (09/20) / Ending on : 01/03/2020

COUNTRY	2019												2020												Latest line List Date
	AFP									Specimen	Wild cases ****		AFP									Specimen	Wild cases ****		
	Total AFP cases onset 2019	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 2020	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	3768	29	1	15	3723	0	18.5	5	0	94.1	29	0	464	2	0	149	313	0	13.7	0	0	96.8	2	0	22/02/2020
Bahrain	17	0	0	2	15	0	5.9	2	0	100.0	0	0	4	0	0	4	0	0	8.3	0	0	100.0	0	0	27/02/2020
Djibouti	5	0	0	0	5	0	1.4	0	0	80.0	0	0	0	0	0	0	0	0	0.0	0	0		0	0	16/02/2019
Egypt	1343	0	0	4	1339	0	3.6	0	0	93.4	0	0	156	0	0	79	77	0	2.5	0	0	85.3	0	0	27/02/2020
Iran	1070	0	0	0	1069	1	5.2	0	0	97.1	0	0	144	0	0	34	110	0	4.1	0	0	100.0	0	0	29/02/2020
Iraq	1157	0	0	6	1151	0	7.4	2	2	94.3	0	0	126	0	0	50	76	0	4.7	0	0	90.5	0	0	20/02/2020
Jordan	113	0	0	0	113	0	3.9	0	0	100.0	0	0	15	0	0	7	8	0	2.3	0	0	100.0	0	0	27/02/2020
Kuwait	48	0	0	0	48	0	5.4	0	0	89.6	0	0	7	0	0	4	3	0	4.1	0	0	42.9	0	0	28/02/2020
Lebanon	87	0	0	8	79	0	4.7	8	0	89.7	0	0	17	0	0	8	9	0	5.5	0	0	88.2	0	0	28/02/2020
Libya	107	0	0	0	107	0	4.3	0	0	98.1	0	0	24	0	0	11	13	0	5.7	0	0	100.0	0	0	22/02/2020
Morocco	247	0	0	4	243	0	2.8	3	0	84.2	0	0	30	0	0	16	14	0	2.0	0	0	66.7	0	0	28/02/2020
Oman	30	0	0	0	30	0	2.7	0	0	80.0	0	0	3	0	0	2	1	0	1.6	0	0	66.7	0	0	24/02/2020
Pakistan	15185	146	5	296	14716	23	19.3	161	0	86.7	146	0	2325	21	0	788	1504	12	17.7	0	0	89.4	21	0	29/02/2020
Palestine	62	0	0	4	58	0	3.3	0	0	98.4	0	0	6	0	0	6	0	0	1.9	0	0	100.0	0	0	23/02/2020
Qatar	9	0	0	0	9	0	2.5	0	0	88.9	0	0	0	0	0	0	0	0	0.0	0	0		0	0	23/02/2020
Saudi Arabia	236	0	0	2	234	0	2.8	0	0	93.2	0	0	16	0	0	16	0	0	1.1	0	0	93.8	0	0	27/02/2020
Somalia	361	0	0	4	354	3	5.7	4	0	95.6	0	0	72	0	0	19	53	0	5.4	0	0	97.2	0	0	29/02/2020
Sudan	608	0	0	3	605	0	3.4	1	1	96.4	0	0	79	0	0	12	67	0	2.5	0	0	96.2	0	0	27/02/2019
Syria	377	0	0	0	377	0	4.8	0	0	88.1	0	0	67	0	0	28	39	0	5.0	0	0	98.5	0	0	28/02/2020
Tunisia	79	0	0	0	78	1	2.9	0	0	74.7	0	0	1	0	0	0	1	0	0.2	0	0	100.0	0	0	26/02/2019
U.A.E	50	0	0	3	47	0	4.0	3	1	90.0	0	0	10	0	0	10	0	0	4.8	0	0	100.0	0	0	26/02/2020
Yemen	780	0	0	329	451	0	5.5	249	220	89.0	0	0	81	0	0	81	0	0	3.4	0	0	95.1	0	0	22/02/2020
EMR	25739	175	6	680	24851	28	10.2	438	224	89.5	175	0	3647	23	0	1324	2288	12	8.4	0	0	91.1	23	0	
2018	21920	33	1	86	21785	15	8.7	86	80	89.8	33	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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COUNTRY	2019						2020					
	# OF CONTACTS	LAB RESULTS					# OF CONTACTS	LAB RESULTS				
		WILD	VDPV	SL	NPEV	PENDING		WILD	VDPV	SL	NPEV	PENDING
AFG	1138	8	0	48	202	0	107	2	0	8	5	10
BAH	0	0	0	0	0	0	0	0	0	0	0	0
DJI	1	0	0	0	0	0	0	0	0	0	0	0
EGY	498	0	0	8	57	0	26	0	0	0	0	6
IRN	216	0	0	4	7	0	0	0	0	0	0	0
IRQ	603	0	0	10	39	6	64	0	0	0	2	15
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	24	0	0	0	3	2	0	0	0	0	0	0
LIB	6	0	0	0	3	0	0	0	0	0	0	0
MOR	85	0	0	3	1	30	2	0	0	0	0	0
OMA	78	0	0	2	28	0	15	0	0	1	3	0
PAK	5497	26	8	248	959	1	1157	8	0	88	83	275
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	44	0	0	1	0	0	0	0	0	0	0	0
SOM	1079	0	1	45	140	15	213	0	0	2	24	47
SUD	402	0	0	0	31	90	27	0	0	0	2	5
SYR	813	0	0	23	36	0	136	0	0	0	0	41
TUN	27	0	0	0	2	0	0	0	0	0	0	0
UAE	0	0	0	0	0	0	0	0	0	0	0	0
YEM	422	0	0	0	0	219	24	0	0	0	0	24
EMR	10933	34	9	392	1508	363	1771	10	0	99	119	423

Table 4 (B): Most recent wild contacts in EMRO, 2019-2020

Year	Country	Data	
		Count of wild contacts	Date of Most Recent stool collection
2020	Afghanistan	2	19-Jan-20
	Pakistan	8	16/Feb/20
2020 Total		10	16/Feb/20
2019	Afghanistan	8	17/Aug/19
	Pakistan	26	26/Dec/19
2019 Total		34	26/Dec/19

Table 4 (C): Number of distribution by district of -ve index AFP cases identified as wild positive by contact in EMR, 2019-2020

YEAR	COUNTRY	PROVINCE	DISTRICT	COUNT	First case	Last case
2020	AFG	HILMAND	WASHER	1	4-Jan-20	4-Jan-20
	PAK	PUNJAB	DG KHAN	1	18-Jan-20	18-Jan-20
2020 Total				2	04-Jan-20	18-Jan-20
2019	AFG	URUZGAN	TIRINKOT	1	2-Aug-19	2-Aug-19
		HILMAND	MUSAQALAH	1	05-Jun-19	05-Jun-19
	PAK	PUNJAB	SANGIN	1	06-Mar-19	06-Mar-19
			DG KHAN	2	2-Dec-19	10-Dec-19
		SINDH	KHIORANGI	1	28-Aug-19	28-Aug-19
			SUJAWAL	1	25-Sep-19	25-Sep-19
			JAMSHORO	1	09-Oct-19	09-Oct-19
			T. ALLAHYAR	1	10-Nov-19	10-Nov-19
			KAMBAR	1	02-Nov-19	02-Nov-19
			MIRPURKHAS	2	01-Dec-19	18-Dec-19
			LARKANA	1	24-Dec-19	24-Dec-19
			JACOBABAD	1	19-Dec-19	19-Dec-19
	BALOCHSITAN	MASTUNG	1	18-Nov-19	18-Nov-19	
		KILLABDULLAH	2	2-Jul-19	19-Nov-19	
	KHYBER PAKHTUNKHWA (KP)	BANNU	1	13-Nov-19	13-Nov-19	
		SWABI	1	17-Nov-19	17-Nov-19	
		TANK	1	30-Oct-19	30-Oct-19	
		LAKKIMRWAT	3	27-May-19	04-Oct-19	
		TORGHAR	1	25-May-19	25-May-19	
2019 Total				24	06-Mar-19	24-Dec-19

Table 5: Laboratory investigation of AFP cases with paralysis onset in 2020 up to Week (09/2020) / Ending on : (01/03/2020)

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	537	38	4	42	345	108		1	28						26						3	7%	100%	100%	100%	29/02/2020
Bahrain	NPL Oman / CDC																										25/02/2020
Djibouti	NPL Kenya / CDC																										16/02/2020
Egypt***	RRL Egypt	159	1	1	4	115	30	8		1											1	3%	100%	100%	100%	27/02/2020	
Iran	NPL Iran / CDC	174	1		2	144	27			1													1%	100%	100%	100%	29/02/2020
Iraq	RRL Egypt																										28/02/2020
Jordan	NPL Jordan / RRL EGYPT	10			2	5		3															29%	100%		100%	20/02/2020
Kuwait	RRL Kuwait / RIVM	5				2	1	2															10%	100%		100%	20/02/2020
Lebanon	NPL Jordan / RRL EGYPT	9			1	8																	11%	100%		100%	20/02/2020
Libya	RRL Tunisia / RIVM	25	3			15	7									3							0%	100%	100%	100%	28/02/2020
Morocco	NPL Morocco / RRL Tunisia	24			1	18	5																3%	100%		100%	28/02/2020
Oman	NPL Oman / CDC	3				2	1																17%	100%		100%	25/02/2020
Pakistan	RRL Pakistan	2305	209	10	153	1374	562	5	20	36			40	12		54						84	7%	100%	100%	99%	29/02/2020
Palestine & UNRWA		6				4		2															0%	25%		100%	23/02/2020
Qatar	NPL Oman / CDC																										25/02/2020
Saudi Arabia	NPL Saudi Arabia / CDC	29				17	8	4															0%	100%			27/02/2020
Somalia	NPL Kenya / CDC	72	1		12	41	12	6														1	23%	6%		100%	29/02/2020
Sudan	NPL Sudan / RRL Egypt	47			1	19		27															8%	100%			09/02/2020
Syria	NPL Syria / RRL Egypt	68	3			41	24																0%	100%			27/02/2020
Tunisia	RRL Tunisia	6				3	3																0%	100%		100%	28/02/2020
U.A.E	NPL Oman / CDC	3					3																				25/02/2020
Yemen	NPL Kenya / CDC	24					24																				22/02/2020
Total EMR 2020		3506	256	15	218	2153	815	57	21	66			40	12		83					1	88	7%	98%	100%	100%	
Total EMR 2019		24462	1046	98	3573	19646	6	76	151	566	1		46	24		619	1	3	21	6	1		12%	95%	99%	97%	

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

** This indicator reflects surveillance and laboratory activities

Table 6: Environmental isolate by year and type

COUNTRY	LAB RESULTS	2016	2017	2018	2019	2020
AFG	Wild	2	42	83	56	2
	Wild+cVDPV2					1
	cVDPV2					1
	EV/SL	177	265	248	196	16
	Negative	6	9	5	3	
AFG Total		185	316	336	259	51
EGY	EV/SL	492	481	508	666	59
	Negative	36	41	32	34	5
	Pending					16
EGY Total		528	522	540	700	80
IRN	Wild				3	
	EV/SL		5	51	65	3
	Negative		1	3	3	
	Pending					2
IRN Total			6	54	71	5
JOR	EV/SL	2	29	36	36	1
	Negative		2			1
	Pending					4
JOR Total		2	31	36	36	6
KUW	EV/SL			3	3	
	Pending				8	
KUW Total				3	11	
LEB	EV/SL	2	26	44	44	2
	Negative	2	1	1	3	
	Pending					2
LEB Total		4	27	45	47	4
PAK	Wild	60	106	139	368	55
	Wild+cVDPV2	2			9	2
	cVDPV2	2			22	2
	aVDPV2	3	4		2	
	EV/SL	456	523	531	419	15
	Negative	6		3	4	2
	Pending				7	55
PAK Total		529	633	673	831	131
SOM	cVDPV2		2	19	5	4
	cVDPV3			11		
	aVDPV2			2	1	
	EV/SL		20	43	28	3
	Negative		14	138	29	5
SOM Total			36	213	63	16
SUD	EV/SL			15	41	
	Negative				1	
	Pending				18	5
SUD Total				15	60	5
SYR	EV/SL		4	81	155	14
	Negative			21	30	5
	Pending					6
SYR Total			4	102	185	25
TOTAL		1248	1575	2017	2263	323

Table 7: Environmental Wild/VDPV isolate by site 2019-2020

YEAR	COUNTRY	LAB RESULTS	PROVINCE	Count	First date	Last date	
2019	AFG	Wild	HILMAND	19	6/Jan/19	25/Dec/19	
			KANDAHAR	24	6/Jan/19	25/Dec/19	
			NANGARHAR	13	26/Jan/19	25/Dec/19	
	AFG Total			56	6/Jan/19	25/Dec/19	
	IRN	Wild	S & B	3	22/Apr/19	20/May/19	
	IRN Total			3	22/Apr/19	20/May/19	
	PAK	Wild	BALUCHISTAN	72	1/Jan/19	20/Dec/19	
			FATA	8	15/Jan/19	4/Dec/19	
			ISLAMABAD	3	12/Apr/19	21/Aug/19	
			KPAKHTUNKHWA	32	8/Jan/19	28/Dec/19	
			PUNJAB	98	5/Jan/19	17/Dec/19	
			SINDH	155	2/Jan/19	20/Dec/19	
			Wild+cVDPV2	FATA	1	31/Dec/19	31/Dec/19
				PUNJAB	4	6/Aug/19	15/Nov/19
				SINDH	4	7/Oct/19	18/Dec/19
					4	7/Oct/19	18/Dec/19
			cVDPV2	GBALISTAN	5	24/Aug/19	6/Nov/19
ISLAMABAD				1	12/Nov/19	12/Nov/19	
KPAKHTUNKHWA				7	9/Oct/19	24/Dec/19	
PUNJAB				8	21/Aug/19	17/Dec/19	
SINDH	1	19/Dec/19		19/Dec/19			
	1	19/Dec/19		19/Dec/19			
aVDPV2	PUNJAB	2	11/Apr/19	18/Dec/19			
		2	11/Apr/19	18/Dec/19			
PAK Total			401	1/Jan/19	31/Dec/19		
SOM	cVDPV2	BANADIR	5	10/Nov/19	22/Dec/19		
		BANADIR	1	3/Feb/19	3/Feb/19		
SOM Total			6	3/Feb/19	22/Dec/19		
2019 Total			466	1/Jan/19	31/Dec/19		
2020	AFG	Wild	HILMAND	1	1/Jan/20	1/Jan/20	
			KANDAHAR	1	28/Jan/20	28/Jan/20	
			NANGARHAR	1	8/Jan/20	8/Jan/20	
			NANGARHAR	1	7/Jan/20	7/Jan/20	
	AFG Total			4	1/Jan/20	28/Jan/20	
	PAK	Wild	BALUCHISTAN	12	1/Jan/20	2/Feb/20	
			FATA	1	30/Jan/20	30/Jan/20	
			ISLAMABAD	1	16/Jan/20	16/Jan/20	
			KPAKHTUNKHWA	2	28/Jan/20	8/Feb/20	
			PUNJAB	12	4/Jan/20	12/Feb/20	
			SINDH	27	3/Jan/20	13/Feb/20	
			Wild+cVDPV2	PUNJAB	1	4/Jan/20	4/Jan/20
				SINDH	1	3/Jan/20	3/Jan/20
					1	3/Jan/20	3/Jan/20
cVDPV2			KPAKHTUNKHWA	2	10/Jan/20	20/Jan/20	
		2	10/Jan/20	20/Jan/20			
PAK Total			59	1/Jan/20	13/Feb/20		
SOM	cVDPV2	BANADIR	4	5/Jan/20	4/Feb/20		
SOM Total			4	5/Jan/20	4/Feb/20		
2020 Total			67	1/Jan/20	13/Feb/20		

Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2020 - 01/03/2020

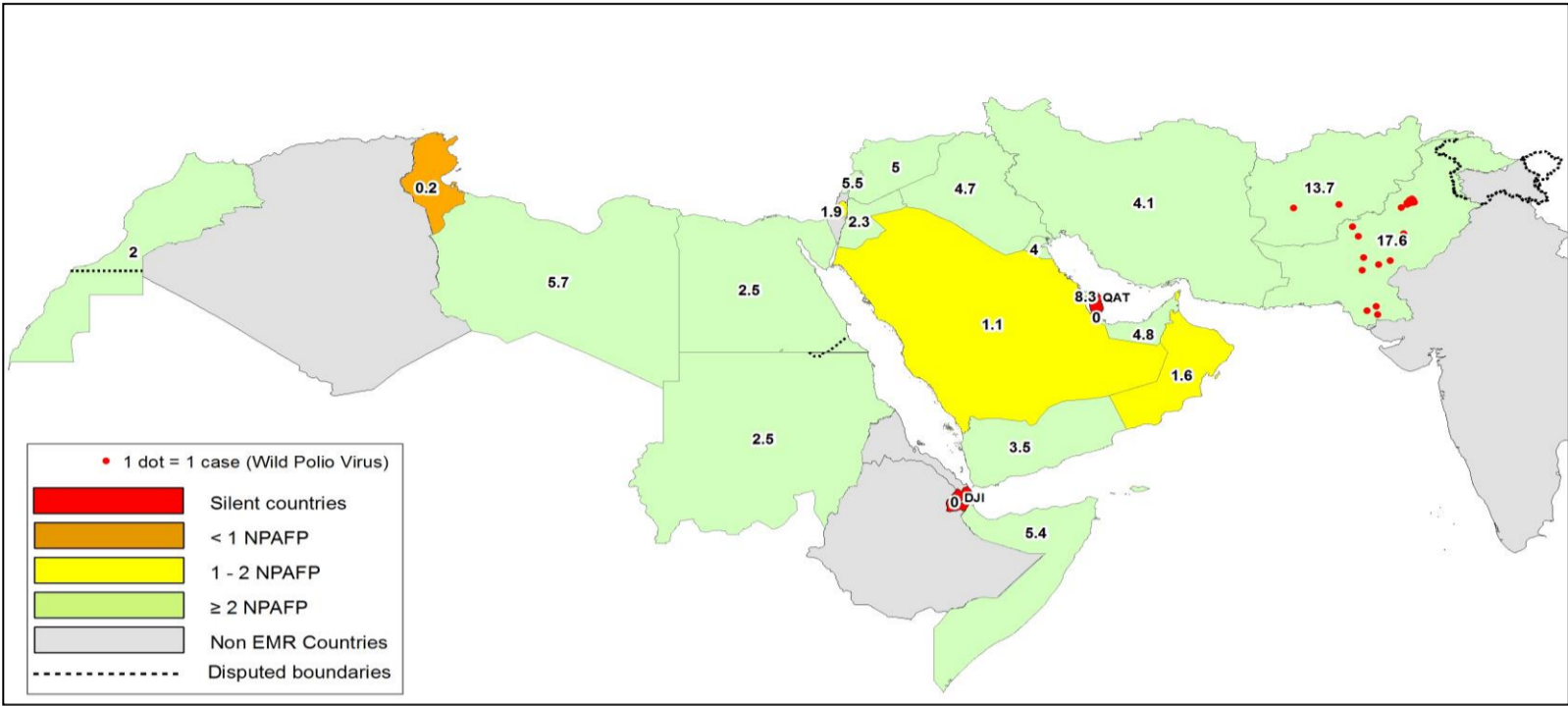


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2020 - 01/03/2020

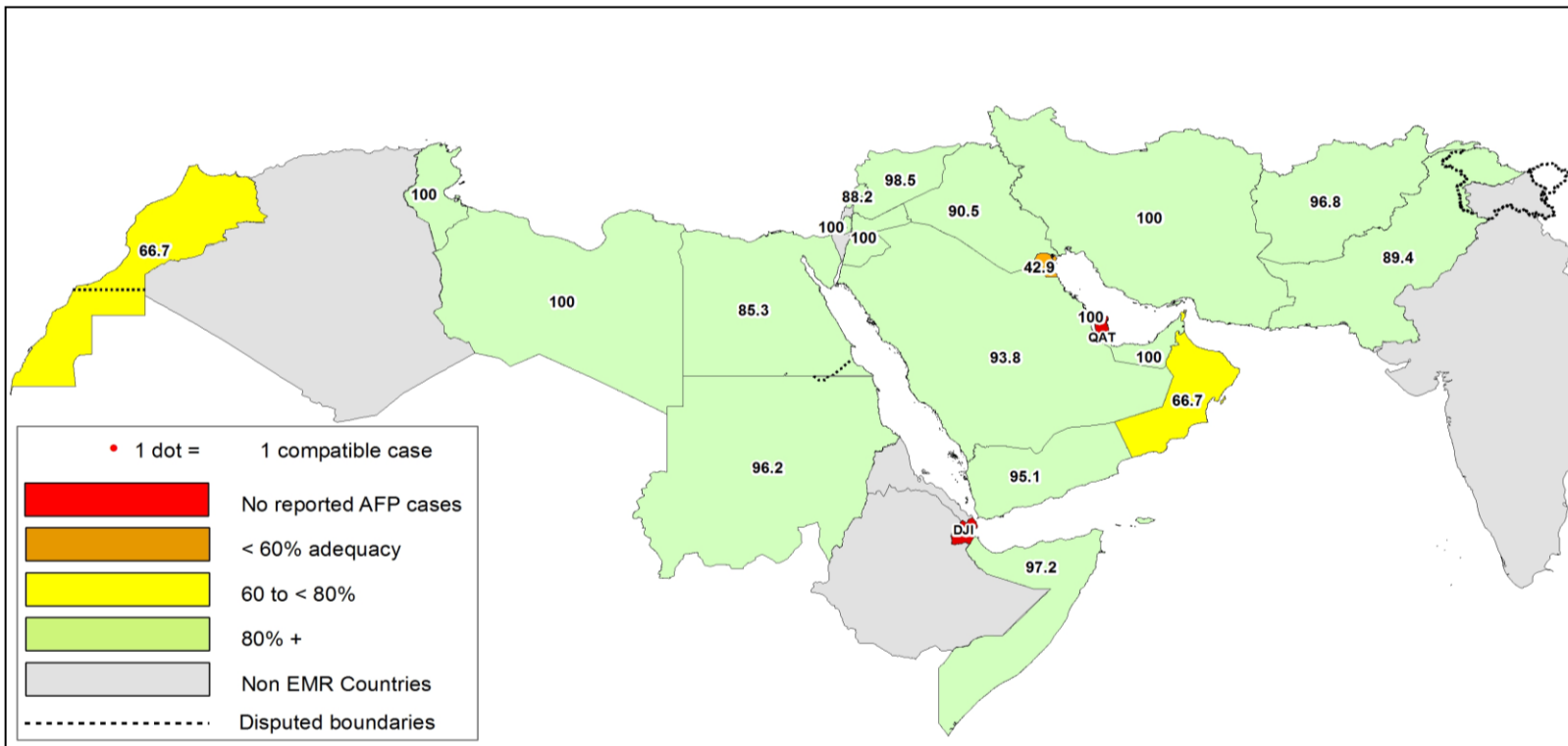


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2019 - 2020

Year	COUNTRY	Count	First Case	Last Case
2020	AFG	2	4-Jan-20	21-Jan-20
	PAK	21	1-Jan-20	7-Feb-20
2020 Total		23	1-Jan-20	7-Feb-20
2019	AFG	29	4-Jan-19	7-Dec-19
	PAK	146	15-Jan-19	31-Dec-19
2019 Total		175	4-Jan-19	31-Dec-19

Advance notification of 2 new WPV1 cases in Pakistan one from Karak district, Khyber Pakhtunkhwa Province with date of onset 20/01/2020 and the other from Noshferoz district, Sindh province with date of onset 08/02/2020 - details will be shared in next bulletin

Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2020 - 01/03/2020

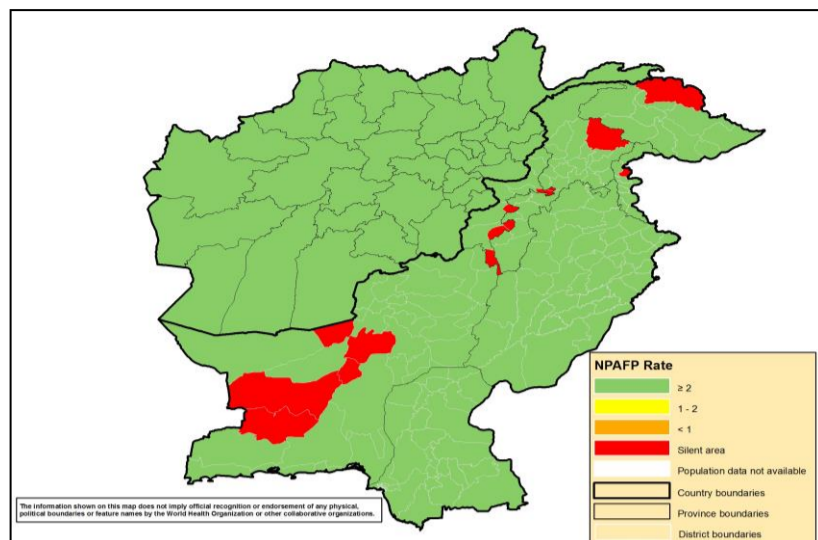


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2020 - 01/03/2020

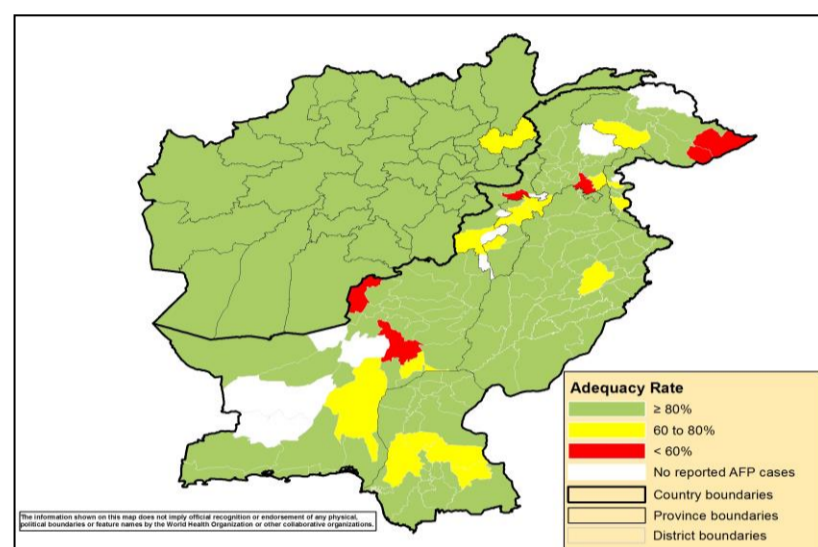
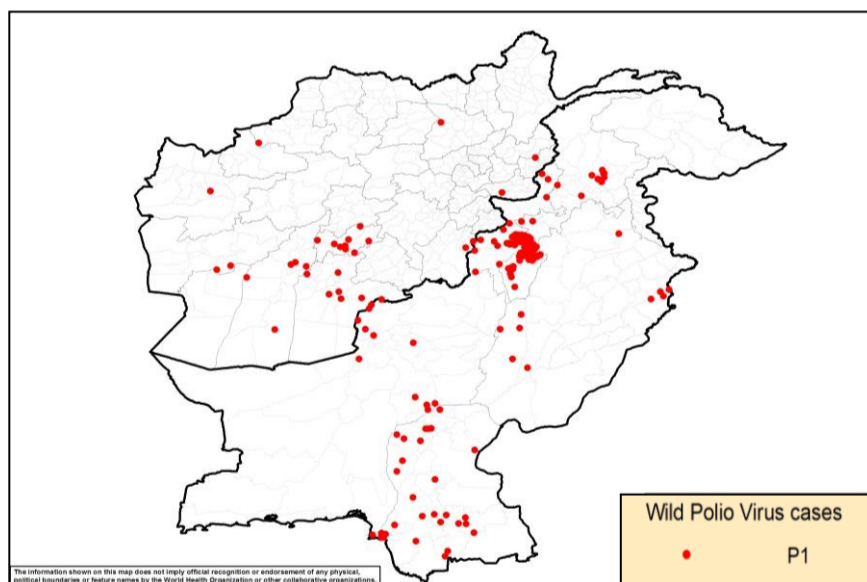
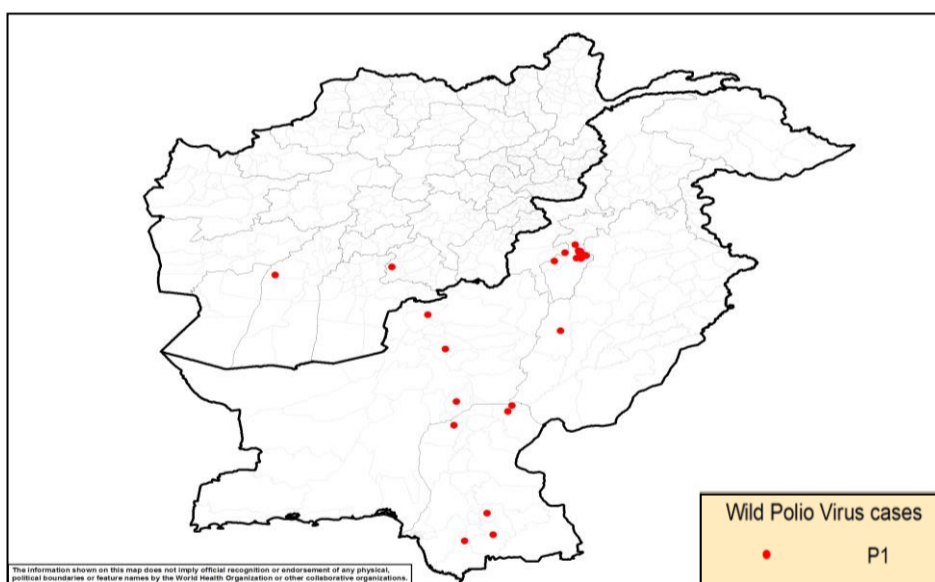


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

5(a) 01/01/2019 - 31/12/2019



5(b) 01/01/2020 - 01/03/2020



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

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Table 9: Wild Polio cases by district and date of onset of paralysis, Afghanistan 2019-2020

ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case	
2020	ZABUL	MIZAN	1	21-Jan-20	21-Jan-20	
	HILMAND	WASHER	1	4-Jan-20	4-Jan-20	
2020 Total			2	4-Jan-20	21-Jan-20	
2019	KANDAHAR	SHAHWALIKOT	1	7-Dec-19	7-Dec-19	
		SPINBOLDAK	2	4-Jan-19	22-Nov-19	
		KANDAHAR	2	17-Aug-19	10-Nov-19	
		GHORAK	1	12-Jan-19	12-Jan-19	
	FARAH	BAKWA	2	14-Nov-19	25-Nov-19	
	HIRAT	PASHTUNZARGHUN	1	19-Nov-19	19-Nov-19	
	BAGHLAN	PUL-E- KHUMRI	1	14-Nov-19	14-Nov-19	
	URUZGAN	KHASURUZGAN	1	2-Nov-19	2-Nov-19	
		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	
	BADGHIS	BALAMURGHAB	1	17-Oct-19	17-Oct-19	
	PAKTIKA	BERMEL	2	15-Sep-19	28-Sep-19	
	NANGARHAR	KHOGYANI	1	18-Sep-19	18-Sep-19	
	HILMAND	GARMSEER	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	
	2019 Total			29	4-Jan-19	7-Dec-19

Table 10: Wild Polio cases by district and date of onset of paralysis, Pakistan 2019-2020

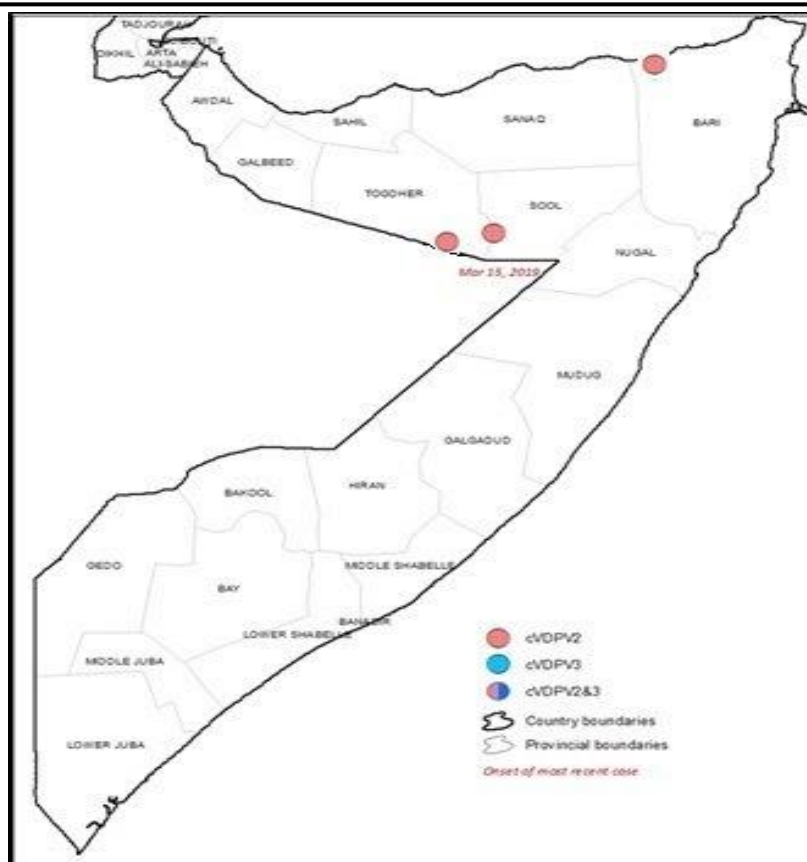
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case	
2020	BALOCHISTAN	SIBI	1	7-Feb-20	7-Feb-20	
		PISHIN	1	31-Jan-20	31-Jan-20	
		NSIRABAD	1	3-Jan-20	3-Jan-20	
	SINDH	KASHMORE	2	16-Jan-20	3-Feb-20	
		KAMBAR	1	8-Jan-20	8-Jan-20	
		SUJAWAL	1	7-Jan-20	7-Jan-20	
		T.ALLAHYAR	1	7-Jan-20	7-Jan-20	
		BADIN	1	1-Jan-20	1-Jan-20	
	KHYBER PAKHTUNKHWA	LAKKIMRWT	10	2-Jan-20	2-Feb-20	
		TANK	1	11-Jan-20	11-Jan-20	
PUNJAB	DGKHAN	1	18-Jan-20	18-Jan-20		
2020 Total			21	1-Jan-20	7-Feb-20	
2019	KHYBER PAKHTUNKHWA	LAKKIMRWT	32	27-May-19	31-Dec-19	
		DIKHAN	4	5-May-19	21-Dec-19	
		TANK	6	11-Oct-19	18-Dec-19	
		BANNU	26	15-Jan-19	30-Nov-19	
		SWABI	1	17-Nov-19	17-Nov-19	
		TORGHAR	7	25-May-19	13-Sep-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	
		BALOCHISTAN	KABDULAH	5	9-Jun-19	31-Dec-19
	JAFARABAD		3	28-May-19	18-Dec-19	
	NSIRABAD		1	5-Dec-19	5-Dec-19	
	MASTUNG		1	18-Nov-19	18-Nov-19	
	HARNAI		1	27-Sep-19	27-Sep-19	
	PUNJAB	QUETTA	1	6-Jul-19	6-Jul-19	
		LAHORE	5	20-Jan-19	28-Dec-19	
		DGKHAN	4	2-Dec-19	25-Dec-19	
		OKARA	1	8-Dec-19	8-Dec-19	
		MUZFARGARH	1	26-Nov-19	26-Nov-19	
		JHELUM	1	21-Jun-19	21-Jun-19	
		SINDH	THATTA	1	26-Dec-19	26-Dec-19
			DADU	2	6-Dec-19	26-Dec-19
			LARKANA	3	17-Apr-19	24-Dec-19
			JAMSHORO	3	23-Aug-19	22-Dec-19
	JACOBABAD		1	19-Dec-19	19-Dec-19	
	MIRPURKHAS		4	17-Nov-19	18-Dec-19	
	KAMBAR		3	2-Nov-19	14-Dec-19	
	BADIN		1	28-Nov-19	28-Nov-19	
	T.ALLAHYAR		1	10-Nov-19	10-Nov-19	
	KHIKAMARI		1	29-Oct-19	29-Oct-19	
	SUKKUR		1	27-Oct-19	27-Oct-19	
	KHIJAMSHEED		1	24-Oct-19	24-Oct-19	
	SBENAZIRABAD		1	19-Oct-19	19-Oct-19	
	SUJAWAL		1	25-Sep-19	25-Sep-19	
	KP TRIBAL DISTRICTS		KHIORANGI	2	20-Aug-19	26-Aug-19
		HYDERABAD	2	20-Jul-19	5-Aug-19	
		KHIGIQBAL	1	29-Apr-19	29-Apr-19	
		KHILAYARI	1	25-Feb-19	25-Feb-19	
		MOHMAND	1	20-Dec-19	20-Dec-19	
		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	
		2019 Total			146	15-Jan-19

Advance notification of 2 new WPV1 cases in Pakistan one from Karak district, Khyber Pakhtunkhwa Province with date of onset 20/01/2020 and the other from Noshferoz district, Sindh province with date of onset 08/02/2020 - details will be shared in next bulletin

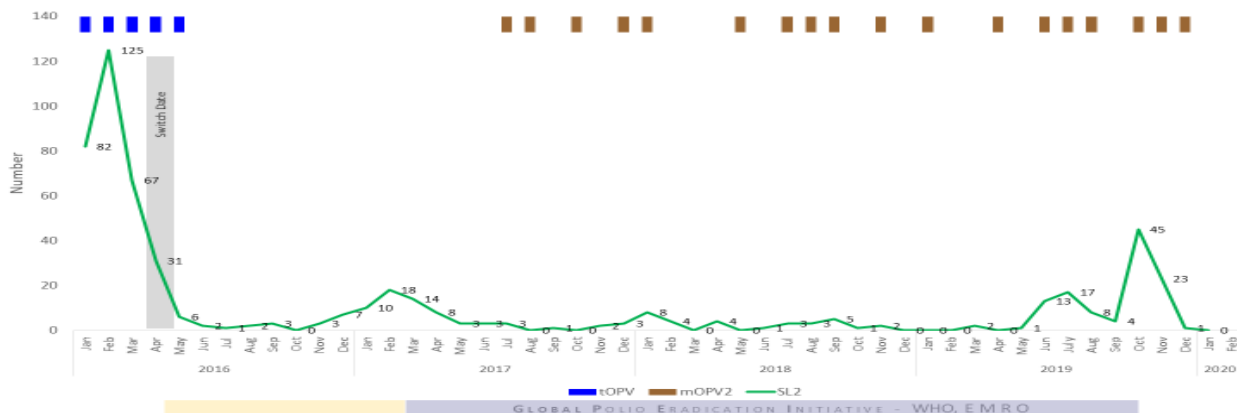
Table 11: Circulating VDPV cases and date of onset of paralysis in EMR countries by districts 2019-2020

COUNTRY	YEAR	PROVINCE	DISTRICT	cVDPV2		
				Count	First Case	Last Case
PAK	2020	PUNJAB	RAWALPINDI	1	18-Jan-20	18-Jan-20
		KHYBER PAKHTUNKHWA	PESHAWAR	2	02-Jan-20	29-Jan-20
			BAJOUR	2	03-Jan-20	28-Jan-20
			KHYBER	6	12-Jan-20	29-Jan-20
			NOWSHERA	1	18-Jan-20	18-Jan-20
Total 2020				12	2-Jan-20	29-Jan-20
PAK	2019	PUNJAB	GUJRANWALA	1	22-Nov-19	22-Nov-19
		KHYBER PAKHTUNKHWA	KHYBER	3	12-Dec-19	28-Dec-19
			MOHMAND	3	12-Dec-19	21-Dec-19
			BAJOUR	1	1-Dec-19	1-Dec-19
			PESHAWAR	1	8-Dec-19	8-Dec-19
			LAKKI MARWAT	1	13-Dec-19	13-Dec-19
			CHARSADA	1	3-Nov-19	3-Nov-19
			KOHISTANUPPER	1	27-Oct-19	27-Oct-19
			KOHISTANLOWER	2	6-Oct-19	11-Oct-19
		TORGHAR	3	4-Sep-19	17-Dec-19	
		ISLAMABAD	CDA	1	11-Sep-19	11-Sep-19
GILGIT BALTISTAN	DIAMER	4	7-Jul-19	28-Aug-19		
SOM		BARI	BOSSASO	1	8-May-19	8-May-19
		TOGDHER	BUHODLE	1	21-Apr-19	21-Apr-19
		SOOL	LAS ANOD	1	15-Mar-19	15-Mar-19
Total 2019				25	15-Mar-19	28-Dec-19

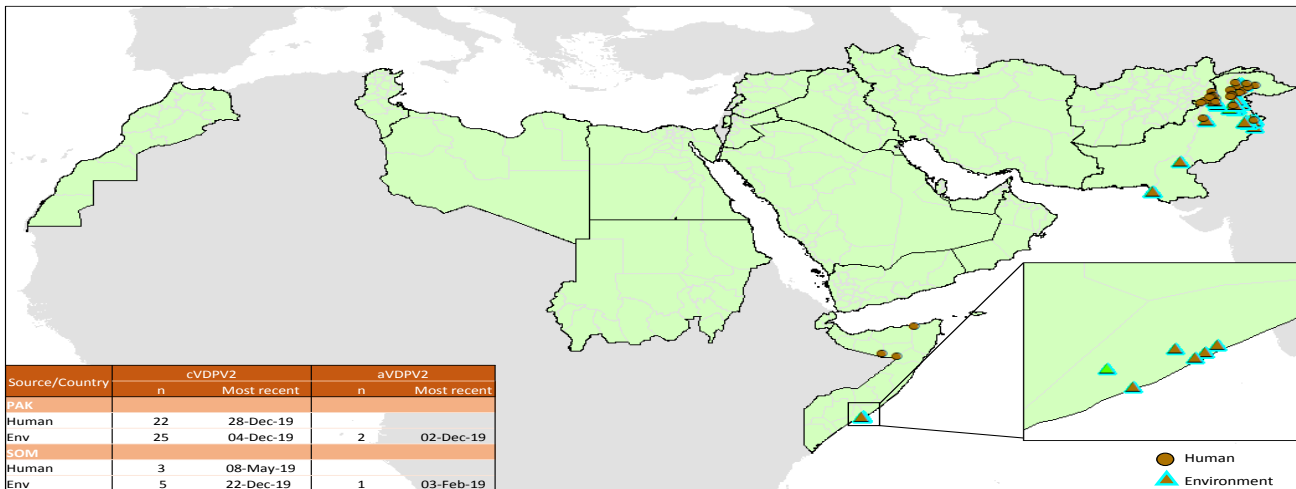
Figure 6: Somalia cVDPV cases by type and district 01/01/2019 - 31/12/2019



Sabin like type-2 poliovirus isolates (H&E) and vaccine types used during SIAs, EMRO, 2016 to 2020



VDPV2 isolates, EMR countries, 2019



VDPV2 isolates, EMR countries, 2020

