

Highlights of Polio Fax Bulletin No. 1158 for Week 50 2020

I. Salient features this week

1. Polio eradication teams at the Regional and Country levels continue to contribute to the COVID19 Response, particularly in areas of surveillance (field and laboratory), data analysis, communications and coordination.
2. No new wild poliovirus cases reported, but four new WPV1 positive environmental samples reported from Pakistan this week.
3. Vaccine Derived Poliovirus (VDPV):
 - cVDPV1: No new cVDPV1 cases reported this week.
 - cVDPV2: Fifty-six new cVDPV2 cases (Afghanistan – 54 and Sudan – 2) and two new positive environmental samples reported from Pakistan this week.

II. Wild Poliovirus Transmission

WPV1 transmission continues globally in only EMR in two polio-endemic countries, Pakistan and Afghanistan.

As of week 50 2020, 138 WPV1 cases are reported (56 from Afghanistan and 82 from Pakistan). This compares with 156 cases in 2019 in the same period (29 from Afghanistan and 127 from Pakistan).

- a. *Human samples:* No new wild poliovirus cases reported this week.

Afghanistan: No new wild poliovirus cases reported this week.

In 2020, **56 WPV1 cases** have been reported so far: 38 cases from South Region; 8 from West Region; 6 from South East Region; 2 from East Region; and one each from North and Badakhshan Regions. **The most recent case has onset of paralysis on 19 October 2020.**

Pakistan: No new wild poliovirus cases reported this week.

In 2020 to date, **82 WPV1 cases** are reported, 24 from Balochistan province, 22 cases each from Khyber Pakhtunkhwa (KP) and Sindh provinces, and 14 from Punjab province. **The most recent case has onset of paralysis on 5 November 2020.**

- b. *Environmental samples:* 4 new reported positive environmental samples are all from Pakistan.

- **Afghanistan:** In 2020 to date, there are **34** WPV1 positive environmental samples including five combined (WPV1 and cVDPV2) with most recent sample collected on 6 October 2020.
- **Pakistan:** In 2020 to date, there are **407** WPV1 positive environmental samples including 66 mixture of WPV1 and cVDPV2 and 4 mixtures of WPV1 and aVDPV2. Most recent positive sample collected on 1 December 2020.

III. Vaccine Derived Polioviruses (VDPVs):

Total cVDPV2 cases in 2020 to date is 385 (214 from Afghanistan, 110 from Pakistan, 13 from Somalia and 48 from Sudan). This compares with 20 cases in 2019 in the same period (17 from Pakistan and 3 from Somalia).

1. **Outbreaks:** Five countries have VDPVs outbreaks, four with cVDPV2 and one with cVDPV1.

Afghanistan: 54 new cVDPV2 case reported and no new positive environmental samples reported this week.

The new 54 cVDPV2 cases were reported: 6 from Central Region (Kabul – 1, Logar – 1 & Wardak – 4); 1 each from East Region (Kunar province) and from Northeast Region (Kunduz province); 3 from Southeast Region (Khost – 2 & Paktika – 1); 2 from West Region (both from Farah province) and 41 from South Region (Kandahar – 19, Hilmand – 14, 4 each from Uruzgan and Zabul provinces). The dates of onset vary between 3 September and 25 October 2020.

One of the newly reported cVDPV2 cases of this week from Nad-e-Ali district, Hilmand province, with date of onset 19 October 2020 was earlier identified as WPV1 – accordingly this case is a mixture of WPV1+cVDPV2.

In 2020 to date, there are **214** cVDPV2 cases; 87 from South Region, 70 reported from East Region, 26 from Southeast Region, 15 from Central Region, 10 from West Region, 4 from Northeast Region, 1 each from North and Badakhshan Regions. **The most recent case has onset of paralysis on 25 October 2020.**

Environment: In 2020 to date, 123 cVDPV2 positive environmental samples including 5 mixture of WPV1 and cVDPV2 were reported. **The most recent cVDPV2 positive environmental sample was collected on 6 October 2020.** Also, there is 1 aVDPV2 isolate detected in the environment, sample collected on 27 September 2020.

Pakistan: No new VDPV cases reported, but 2 cVDPV2 new positive environmental samples reported this week. In 2020 to date, there are **110** cVDPV2 cases reported: 42 from KP province, 34 from Sindh province, 23 from Punjab province and 11 from Balochistan province, with most recent case's onset on 20 October 2020. In addition to 7 aVDPV2 cases, 6 from Punjab province and 1 from Sindh province, with most recent case's onset on 11 September 2020.

Environment: In 2020, there are **86** positive environmental samples for cVDPV2 so far (including 66 mixture of WPV1 and cVDPV2), the most recent sample collected on 20 October 2020. Also, there are 9 aVDPV2 isolates detected in the environment samples, which include four combined (WPV1 + aVDPV2). The most recent aVDPV2 positive environmental sample was collected on 17 September 2020.

SOMALIA: No new VDPV cases or positive environmental samples reported this week.

In 2020 to date, **13** cVDPV2 cases reported, 7 from Banadir province, 2 from Bay and 1 each from Lower Juba, Middle Shabelle, Galbeed and Hiran provinces, with **most recent date of onset 25 October 2020**. Also, there are **26** cVDPV2 positive environmental samples reported, the most recent collected on 24 October 2020.

SUDAN: 2 new cVDPV2 cases reported this week and no new positive environmental samples were reported. The newly reported cVDPV2 cases are from Port Sudan locality, Red Sea State and from Gebal Awelya locality, Khartoum State with dates of onset 21 and 24 October 2020 respectively.

In 2020 to date, **48** cVDPV2 cases reported. **The most recent case has onset of paralysis on 24 October 2020.** A total of **11** environmental samples have been positive for cVDPV2 so far, all from Khartoum with most recent collection on 6 September 2020.

YEMEN: No new VDPV cases reported this week.

In 2020 to date, **18** cVDPV1 cases are reported. 17 cases are from Saadah province and 1 case from Sana'a City province. **The most recent case has onset of paralysis on 6 August 2020.**

2. **VDPV Events:** There are two countries currently having VDPV Event due to VDPV2. Response per WHO's SOPs are ongoing.

Egypt: In 2020, an Event of a VDPV2 positive environmental sample from Giza province is under investigation to determine the appropriate response. The isolate is genetically related with earlier virus seen in Sudan consequent to importation from Chad. **Date of sample collection is 21 September 2020.**

Iran: A reported VDPV2 positive environmental sample from Zabol district, Sistan & Balochistan province – it is under investigation to determine the appropriate response. The isolate is genetically related with earlier virus seen in Afghanistan consequent to importation from Pakistan. **Date of sample collection is 3 October 2020.**

IV. Surveillance performance indicators

In 2020, 14 out 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.

- Morocco and Tunisia are missing both indicators as their non-polio AFP rates are 0.8 and 1.3 and their percentage of AFP cases with adequate stool specimens is 64.6%, and 58.8%, respectively.
- Djibouti, Jordan, Oman, Palestine and United Arab Emirates have a non-polio AFP rate of 1.4, 0.9, 1.8, 0.7 and 1.6 respectively.
- Qatar has AFP cases with adequate stool specimens is 33.3%.

World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

14-Dec-20

Number 1158

Week 50, ending 13 December 2020

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

Country	Reported AFP cases by week of onset - Week (50/20) / Ending on : 13/12/2020														
	Total AFP 2018	Total AFP 2019	Total AFP to date, 2020	W39 27 Sep 20	W40 04 Oct 20	W41 11 Oct 20	W42 18 Oct 20	W43 25 Oct 20	W44 01 Nov 20	W45 08 Nov 20	W46 15 Nov 20	W47 22 Nov 20	W48 29 Nov 20	W49 06 Dec 20	W50 13 Dec 20
Afghanistan	3378	3768	3571	82	94	100	92	89	74	79	72	53	32	0	0
Bahrain	35	17	13	1	0	0	0	0	1	0	0	1	0	0	0
Djibouti	0	5	5	0	0	0	0	1	0	0	0	1	0	0	0
Egypt	1246	1343	934	20	31	23	13	31	22	27	20	24	30	21	6
Iran	896	1070	542	9	9	8	6	13	10	9	7	6	10	3	
Iraq	1023	1157	424	8	5	13	14	8	14	7	11	9	9	9	
Jordan ****	115	113	32	1	1	2	1	0	0	0	0	0			
Kuwait	72	48	30	0	0	1	1	1	1	0	0	1	0	0	
Lebanon ****	89	87	46	1	0	2	1	1	0	0	0	2	2	0	
Libya	122	107	88	2	0	1	3	1	1	1	1	2	0		
Morocco	212	247	79	0	0	3									
Oman	28	30	20	1	1	0	1	2	0	1	0	0	0	0	0
Pakistan	12276	15216	10937	283	294	258	244	227	242	224	216	190	189	73	0
Palestine ****	44	62	12	0	0	0	0	1	0	0	0	0	0		
Qatar	10	9	9	0	0	0	0	0	0	0	1	0	0	0	
Saudi Arabia	242	236	173	8	10	2	8	6	3	9	10	9	10	4	0
Somalia	353	361	352	7	5	6	4	6	3	8	4	6	6	0	0
Sudan	579	608	680	32	18	27	20	30	16	13	15	27	14	5	
Syria ****	362	377	328	13	3	1	3	11	5	6	11	6	3	7	
Tunisia	68	79	34	0	0	0	0	1	1	1	2	1	0	0	
U.A.E	40	50	19	0	0	0	1	1	0	0	0	0	0		
Yemen	730	779	743	22	29	17	16	20	23	27	26	10	18	8	
Total EMR	21920	25769	19071	490	500	465	427	449	418	411	398	346	323	130	6

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2018	Total year 2019	13/12		Confirmed polio cases by month of onset											
	2018	2019	2019	2020	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020
Afghanistan	21	29	29	56	2	3	7	0	12	10	7	6	6	3		
Bahrain	0	0	0	0	0	0	0	0	0	0	0	0				
Djibouti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Jordan ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lebanon ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Libya	0	0	0	0	0	0	0	0	0	0	0	0				
Morocco	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	12	147	127	82	18	17	7	6	6	6	6	5	7	3	1	
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	0	
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Somalia	0	0	0	0	0	0	0		0	0	0	0	0	0	0	
Sudan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Syria ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
U.A.E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Yemen	0	0	0	0	0											
Total EMR	33	176	156	138	20	20	14	6	18	16	13	11	13	6	1	0

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

AFP SURVEILLANCE
Week 50, ending 13 December 2020

14-Dec-20

Number 1158

Table 3: Investigation of AFP cases with paralysis onset in 2019 & 2020 up to Week (50/20) / Ending on : 13/12/2020)

COUNTRY	2019												2020												Latest line List Date		
	AFP												AFP														
	Total AFP cases onset 2019	Total Confirmed Polio Cases *	Polio Compatible	Pending Classification	Discarded (non polio AFP)	VDPV	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	Specimen	Wild cases ****	Wild P1 Poliovirus	Wild P3 Poliovirus	Total AFP cases onset 2020	Total Confirmed Polio Cases *	Polio Compatible	Pending Classification	Discarded (non polio AFP)	VDPV	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	Specimen	Wild cases ****			
Afghanistan	3768	29	1	0	3738	0	18.1	0	0	94.1	29	0	3571	56	1	311	2988	215 #	17.5	65	13	93.4	56	0	13/12/2020		
Bahrain	17	0	0	0	17	0	5.7	0	0	100.0	0	0	13	0	0	3	10	0	4.6	0	0	92.3	0	0	13/12/2020		
Djibouti	5	0	0	0	5	0	1.4	0	0	80.0	0	0	5	0	0	4	1	0	1.4	3	0	100.0	0	0	06/12/2019		
Egypt	1343	0	0	0	1343	0	3.6	0	0	93.4	0	0	934	0	0	93	841	0	2.5	1	0	91.3	0	0	10/12/2020		
Iran	1070	0	0	0	1069	1	5.2	0	0	97.1	0	0	542	0	0	17	525	0	2.7	0	0	98.7	0	0	12/12/2020		
Iraq	1157	0	0	0	1157	0	7.4	0	0	94.3	0	0	424	0	0	30	394	0	2.8	0	0	92.9	0	0	12/12/2020		
Jordan	113	0	0	0	113	0	3.9	0	0	100.0	0	0	32	0	0	1	31	0	0.9	0	0	96.9	0	0	26/11/2020		
Kuwait	48	0	0	0	48	0	5.4	0	0	89.6	0	0	30	0	0	1	29	0	3.6	0	0	90.0	0	0	07/12/2020		
Lebanon	87	0	0	0	87	0	4.7	0	0	89.7	0	0	46	0	0	10	36	0	2.6	2	0	93.5	0	0	11/12/2020		
Libya	107	0	0	0	107	0	4.3	0	0	98.1	0	0	88	0	0	10	77	1	3.5	0	0	100.0	0	0	28/11/2020		
Morocco	247	0	0	0	247	0	2.8	0	0	84.2	0	0	79	0	0	35	44	0	0.8	31	8	64.6	0	0	16/10/2020		
Oman	30	0	0	0	30	0	2.7	0	0	80.0	0	0	20	0	0	1	19	0	1.8	0	0	100.0	0	0	13/12/2020		
Pakistan	15216	147	6	0	15040	23	19.3	0	0	86.6	147	0	10937	82	10	893	9838	115	14.6	200	1	86.7	82	0	13/12/2020		
Palestine	62	0	0	0	62	0	3.5	0	0	98.4	0	0	12	0	0	5	7	0	0.7	3	0	100.0	0	0	29/11/2020		
Qatar	9	0	0	0	9	0	2.2	0	0	88.9	0	0	9	0	0	7	2	0	2.2	6	0	33.3	0	0	12/12/2020		
Saudi Arabia	236	0	0	0	236	0	2.8	0	0	93.2	0	0	173	0	0	69	104	0	2.1	2	0	96.5	0	0	13/12/2020		
Somalia	361	0	0	0	358	3	5.7	0	0	95.6	0	0	352	0	0	17	321	15	4.6	2	1	95.7	0	0	13/12/2020		
Sudan	608	0	0	0	608	0	3.4	0	0	96.4	0	0	680	0	0	45	587	48	3.7	2	0	93.4	0	0	10/12/2020		
Syria	377	0	0	0	377	0	4.8	0	0	88.1	0	0	328	0	0	27	301	0	4.3	0	0	91.2	0	0	12/12/2020		
Tunisia	79	0	0	0	78	1	2.9	0	0	74.7	0	0	34	0	0	8	26	0	1.3	2	1	58.8	0	0	11/12/2020		
U.A.E	50	0	0	0	50	0	4.0	0	0	90.0	0	0	19	0	0	2	17	0	1.6	0	0	100.0	0	0	05/12/2020		
Yemen	779	0	0	0	778	1	5.5	0	0	89.0	0	0	743	0	1	386	338	18	5.5	181	150	89.9	0	0	12/12/2020		
EMR	25769	176	7	0	25557	29	10.2	0	0	89.5	176	0	19071	138	12	1975	16536	412	7.6	500	174	89.3	138	0			
2018	21920	33	4	0	21868	15	8.7	0	0	89.8	33	0															

A new cVDPV2 case reported from Afghanistan, Hilmand province, date of onset 19/10/2020
 was earlier reported as WPV1 case - accordingly this case is a mixture of WPV1+cVDPV2

* 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 50, ending 13 December 2020

14-Dec-20

Number 1158

COUNTRY	2019					2020				
	# OF CONTACTS	LAB RESULTS				# OF CONTACTS	LAB RESULTS			
		WILD	VDPV	SL	NPEV		WILD	VDPV	SL	NPEV
AFG	1138	8	0	48	202	0	1149	14	52	42
BAH	0	0	0	0	0	0	1	0	0	0
DJI	1	0	0	0	0	0	2	0	0	0
EGY	498	0	0	8	57	0	279	0	0	11
IRN	216	0	0	4	7	0	22	0	0	0
IRQ	603	0	0	12	39	6	162	0	0	4
JOR	0	0	0	0	0	0	0	0	0	0
KUW	0	0	0	0	0	0	0	0	0	0
LEB	24	0	0	0	3	0	5	0	0	0
LIB	7	0	0	0	3	0	2	0	0	0
MOR	85	0	0	3	1	30	8	0	0	0
OMA	78	0	0	2	28	0	60	0	0	2
PAK	5497	26	9	248	959	0	4341	19	10	349
PAL	0	0	0	0	0	0	0	0	0	0
QAT	0	0	0	0	0	0	0	0	0	0
SAA	44	0	0	0	0	0	18	0	0	0
SOM	1082	0	1	45	141	5	1051	0	9	19
SUD	402	0	0	1	31	90	318	0	18	1
SYR	813	0	0	23	36	0	280	0	0	11
TUN	27	0	0	0	2	0	5	0	0	0
UAE	0	0	0	0	0	0	0	0	0	0
YEM	423	0	2	6	68	5	207	0	0	0
EMR	10938	34	12	400	1577	136	7910	33	89	439
										1137
										623

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	14	26/Jul/20
	Pakistan	19	4/Sep/20
2020 Total		33	4/Sep/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	KANDAHAR	NESH	1	23-May-20	23-May-20	
		HILMAND	WASHER	1	04-Jan-20	04-Jan-20	
		NIMROZ	KHASHROD	1	28-Feb-20	28-Feb-20	
		FARAH	ANARDARA	1	06-May-20	06-May-20	
	PAK	BALOCHISTAN	KSAIFULLAH	1	01-Sep-20	01-Sep-20	
		PUNJAB	LAHORE	1	24-Jul-20	24-Jul-20	
		KHYBER PAKHTUNKHWA (KP)	DG KHAN	2	18-Jan-20	05-Jul-20	
		SINDH	KARAK	1	20-Jan-20	20-Jan-20	
			JACOBABAD	2	07-Feb-20	14-Jul-20	
				11	04-Jan-20	01-Sep-20	
2019	AFG	URUZGAN	TIRINKOT	1	02-Aug-19	02-Aug-19	
		HILMAND	MUSAQALAH	1	05-Jun-19	05-Jun-19	
			SANGIN	1	06-Mar-19	06-Mar-19	
		PUNJAB	DG KHAN	2	2-Dec-19	10-Dec-19	
			KHORANGI	1	28-Aug-19	28-Aug-19	
	PAK		SUJAWAL	1	25-Sep-19	25-Sep-19	
		SINDH	JAMSHORO	1	09-Oct-19	09-Oct-19	
			T. ALLAHYAR	1	10-Nov-19	10-Nov-19	
		BALOCHSITAN	KAMBAR	1	02-Nov-19	02-Nov-19	
			MIRPURKHAS	2	01-Dec-19	18-Dec-19	
	PAK		LARKANA	1	24-Dec-19	24-Dec-19	
		KHYBER PAKHTUNKHWA (KP)	JACOBABAD	1	19-Dec-19	19-Dec-19	
			MASTUNG	1	18-Nov-19	18-Nov-19	
			KILLABDULLAH	2	2-Jul-19	19-Nov-19	
			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	
				24	06-Mar-19	24-Dec-19	

Table 5:

Laboratory investigation of AFP cases with paralysis onset in 2020 up to Week (50/2020) / Ending on : (13/12/2020)

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					
				L20B+	L20B+/NPEV			received < / = 14 days	received > 14 days ago	Wild	Sabin	VPV	Wild	Sabin	VPV												
Afghanistan	RRL Pakistan	3603	483	21	566	2408	125	1	53	104			56	192		87	1		2		61	16%	94%	100%	97%	13/12/2020	
Bahrain	NPL Oman / CDC	10			1	9																	9%	100%		0%	13/12/2020
Djibouti	NPL Kenya / CDC	5						1																0%		100%	06/12/2020
Egypt***	RRL Egypt	901	26	13	107	714	40	1		13						15			10	3		12%	95%	100%	99%	10/12/2020	
Iran	NPL Iran / CDC	543	9		5	520	9			5					6							1%	100%	100%	99%	12/12/2020	
Iraq	RRL Egypt	422	1		37	358	25			2												9%	96%	67%	98%	12/12/2020	
Jordan	NPL Jordan / RRL EGYPT	32			5	26		1														16%	100%		100%	26/11/2020	
Kuwait	RRL Kuwait / RIVM	32				29		3														1%	83%		93%	07/12/2020	
Lebanon	NPL Jordan / RRL EGYPT	42			5	37																11%	98%		100%	11/12/2020	
Libya	RRL Tunisia / RIVM	88	4			84										3	1					0%	100%	100%	53%	23/11/2020	
Morocco	NPL Morocco / RRL Tunisia	68			1	58		9														1%	100%		98%	04/12/2020	
Oman	NPL Oman / CDC	20			3	17																14%	100%		100%	13/12/2020	
Pakistan	RRL Pakistan	10688	871	47	1625	7787	332	17	75	164			344	108		259		1	7	2	50	14%	94%	98%	97%	13/12/2020	
Palestine & UNRWA		12				11		1														0%	36%		100%	29/11/2020	
Qatar	NPL Oman / CDC	3				3																0%	100%		100%	12/12/2020	
Saudi Arabia	NPL Saudi Arabia / CDC	165	1			153	9	2								1						0%	100%	100%	99%	13/12/2020	
Somalia	NPL Kenya / CDC	352	21	5	56	253	5	11	3	1			11		14							18%	7%		97%	13/12/2020	
Sudan	NPL Sudan / RRL Egypt	667	50		83	504	20	14	2		29	45	1								14%	99%	100%	55%	10/12/2020		
Syria	NPL Syria / RRL Egypt	316	14	2	15	272	8	5													5%	100%			12/12/2020		
Tunisia	RRL Tunisia	24				23		1													0%	100%		96%	11/12/2020		
U.A.E	NPL Oman / CDC	16				16															0%	100%		50%	29/11/2020		
Yemen	NPL Kenya / CDC	374	25		61	162	126		2	17			5		1		1		1		24%	97%	20%	0%	12/12/2020		
Total EMR 2020		18383	1505	88	2570	13444	699	67	128	295	18	429	356		391	2	2	19	6	111	13%	93%	97%	95%			
Total EMR 2019		24920	1057	100	3669	20059		23	152	576	1	46	25		629	1	3	21	5		13%	95%	99%	96%			

* 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	29
	Wild+cVPV2				5	5
	cVPV2				118	118
	aVPV2				1	1
	EV/SL	177	265	248	200	167
	Negative	6	9	5	3	3
Pending						63
AFG Total		185	316	336	259	386
EGY	aVPV2				1	1
	EV/SL	493	481	508	666	449
	Negative	35	41	32	34	40
	Pending					19
	aVPV3					1
	aVPV1					1
VPV3						1
EGY Total		528	522	540	700	512
IRN	Wild				3	
	VPV2					1
	EV/SL		5	51	65	34
	Negative		1	3	3	
	Pending					1
IRN Total		6	54	71	36	
JOR	EV/SL	2	29	36	36	19
	Negative		2			1
	Pending					1
JOR Total		2	31	36	36	21
KUW	EV/SL			3	3	
	Pending				8	
KUW Total			3	11		
LEB	EV/SL	2	26	44	44	21
	Negative	2	1	1	3	2
	Pending					
LEB Total		4	27	45	47	23
PAK	Wild	59	105	139	367	337
	Wild+cVPV2	2			10	66
	Wild+aVPV2	1	1		2	4
	cVPV2	2			29	20
	aVPV2	3	4			5
	EV/SL	456	523	531	420	265
Negative		6		3	4	5
	Pending					76
PAK Total		529	633	673	832	778
SOM	cVPV2		2	18	5	26
	cVPV3			11		
	aVPV2			2	1	
	cVPV2+cVPV3			1		
	EV/SL		20	43	28	17
	Negative		14	138	29	5
Pending						
SOM Total			36	213	63	77
SUD	cVPV2			15		11
	EV/SL				42	12
	Negative				1	2
	Pending				17	25
SUD Total			15	60	50	
SYR	EV/SL		4	81	155	164
	Negative			21	30	17
	Pending					7
SYR Total		4	102	185	188	
TOTAL		1248	1575	2017	2264	2071

Table 7: Environmental Wild/VPV 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
				3	22/Apr/19	20/May/19
	PAK	Wild	BALOCHISTAN	72	1/Jan/19	20/Dec/19
			GBALTISTAN	1	9/Dec/19	9/Dec/19
			ISLAMABAD	3	12/Apr/19	21/Aug/19
			KPAKHTUNKHWA	40	8/Jan/19	28/Dec/19
			PUNJAB	97	5/Jan/19	17/Dec/19
			SINDH	154	2/Jan/19	17/Dec/19
		Wild+cVPV2	KPAKHTUNKHWA	1	31/Dec/19	31/Dec/19
			PUNJAB	5	6/Aug/19	16/Dec/19
		cVPV2	SINDH	4	7/Oct/19	18/Dec/19
			GBALTISTAN	5	24/Aug/19	6/Nov/19
			ISLAMABAD	1	12/Nov/19	12/Nov/19
			KPAKHTUNKHWA	10	9/Oct/19	28/Dec/19
			PUNJAB	12	11/Apr/19	18/Dec/19
			SINDH	1	19/Dec/19	19/Dec/19
	PAK Total			406	1/Jan/19	31/Dec/19
SOM	cVPV2	BANADIR		5	10/Nov/19	22/Dec/19
				1	3/Feb/19	3/Feb/19
	aVPV2	BANADIR		1	3/Feb/19	22/Dec/19
				6	3/Feb/19	22/Dec/19
SOM Total				471	1/Jan/19	31/Dec/19
2019 Total						
2020	AFG	Wild	HILMAND	10	1/Jan/20	24/Aug/20
			HIRAT	4	26/Apr/20	23/Aug/20
			KABUL	1	26/Sep/20	26/Sep/20
			KANDAHAR	10	28/Jan/20	25/Jun/20
			KHOST	1	25/Apr/20	25/Apr/20
			KUNDUZ	1	27/Sep/20	27/Sep/20
			NANGARHAR	2	26/Jan/20	6/Oct/20
		Wild+cVPV2	HILMAND	1	6/Sep/20	6/Sep/20
			KANDAHAR	2	9/Jul/20	27/Sep/20
		cVPV2	NANGARHAR	2	8/Jan/20	25/Jul/20
			HILMAND	14	27/May/20	5/Oct/20
			HIRAT	1	26/Sep/20	26/Sep/20
			KANDAHAR	15	26/Apr/20	4/Oct/20
		aVPV2	KHOST	20	9/Jul/20	5/Oct/20
			KUNAR	4	24/Jun/20	26/Sep/20
			KUNDUZ	1	23/Aug/20	23/Aug/20
			LAGHMAN	4	24/Jul/20	6/Oct/20
			NANGARHAR	54	7/Jan/20	5/Oct/20
			PAKTYA	1	26/Jul/20	26/Jul/20
			HILMAND	1	27/Sep/20	27/Sep/20
	AFG Total			153		

**World Health Organization – Regional Office for Eastern Mediterranean
AFP SURVEILLANCE
Week 50, ending 13 December 2020**

14-Dec-20
Number 1158

Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2020 - 13/12/2020

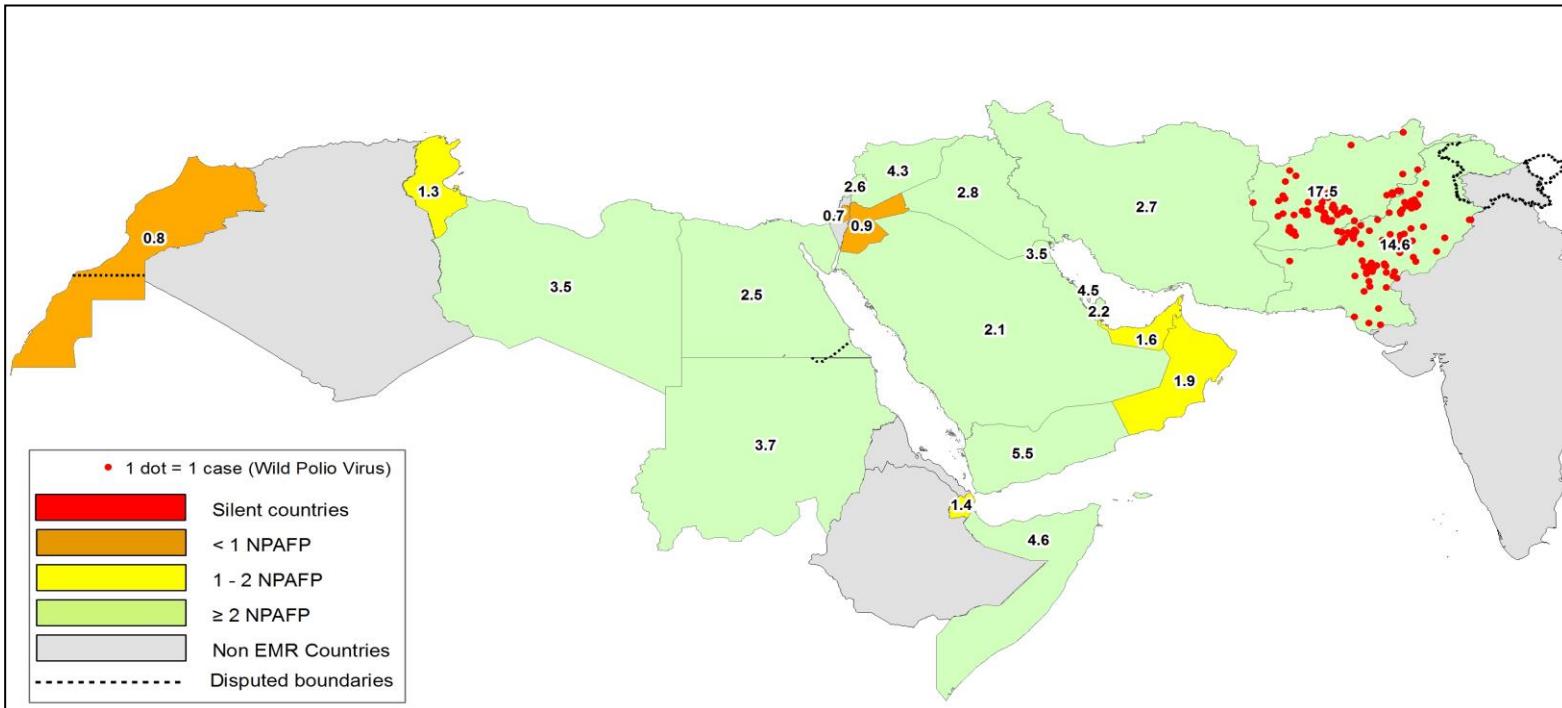


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2020 - 13/12/2020

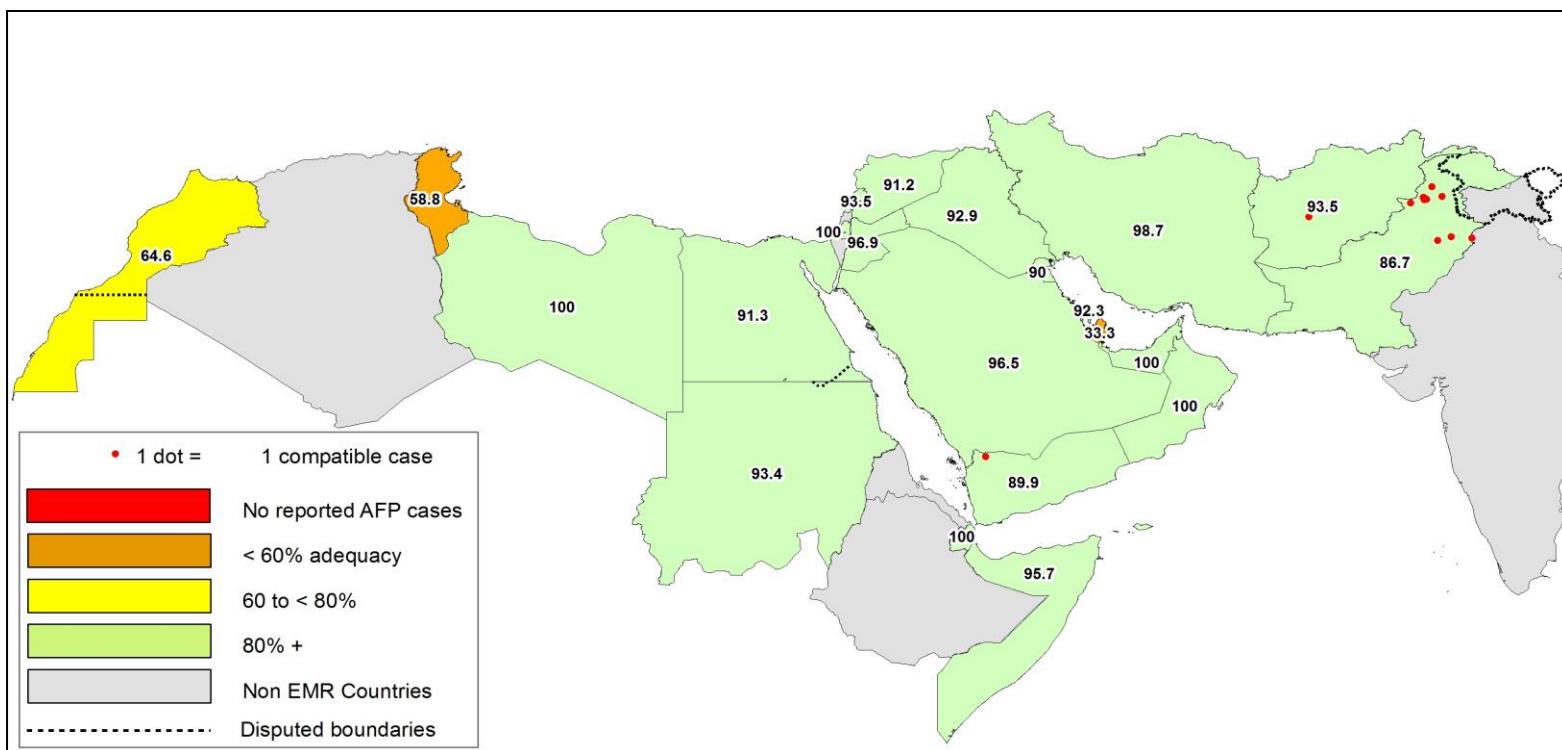


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2019 - 2020

Year	COUNTRY	Count	First Case	Last Case
2020	AFG	56	4-Jan-20	19-Oct-20
	PAK	82	1-Jan-20	5-Nov-20
2020 Total		138	1-Jan-20	5-Nov-20
2019	AFG	29	4-Jan-19	7-Dec-19
	PAK	147	15-Jan-19	31-Dec-19
2019 Total		176	4-Jan-19	31-Dec-19

Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2020 - 13/12/2020

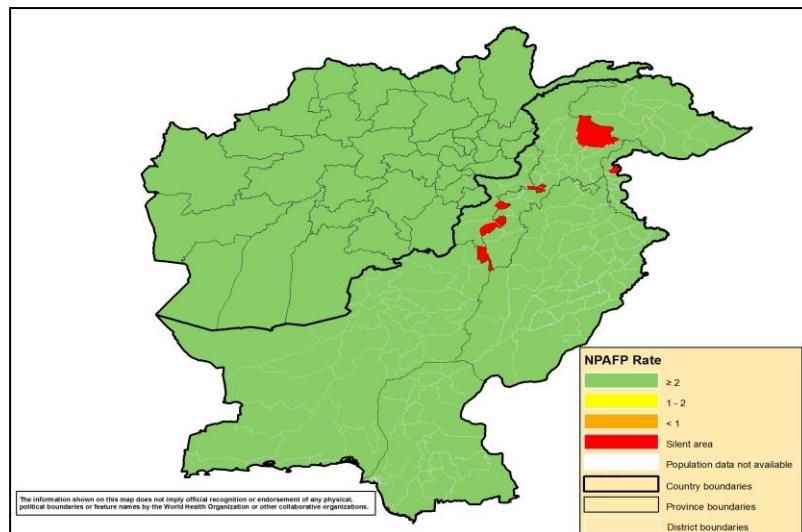


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2020 - 13/12/2020

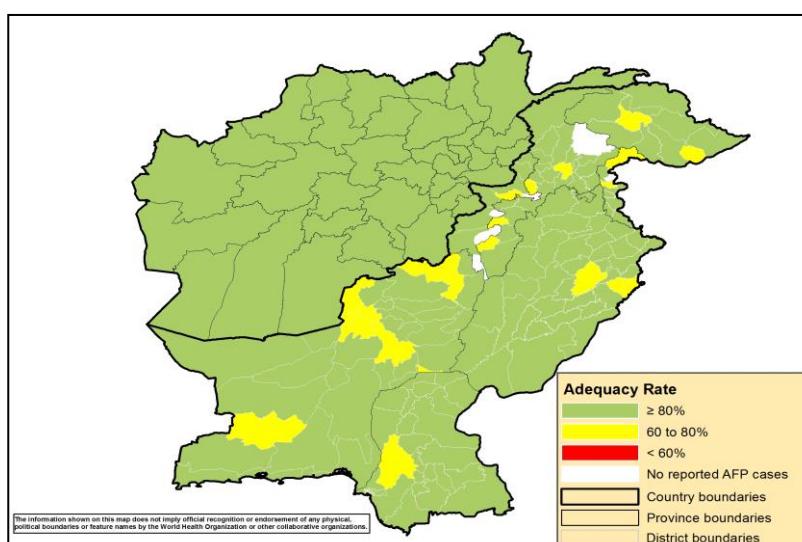
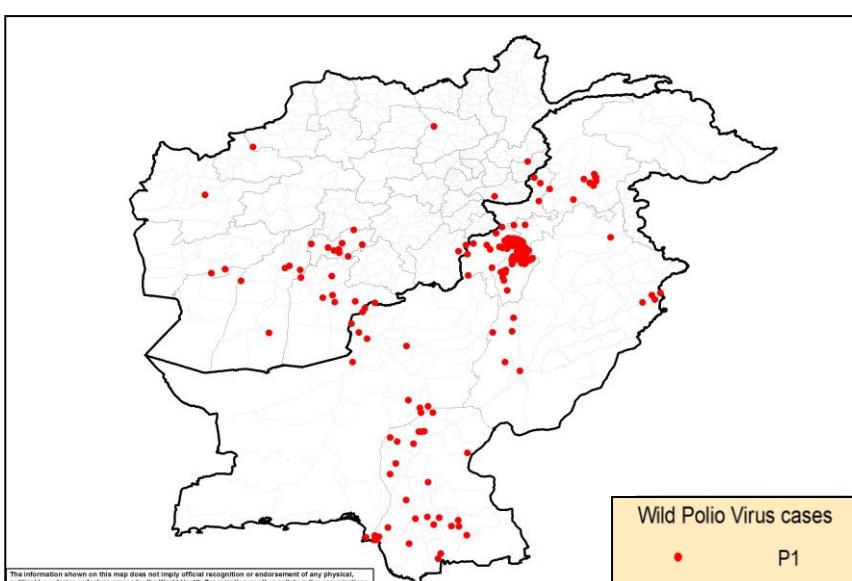
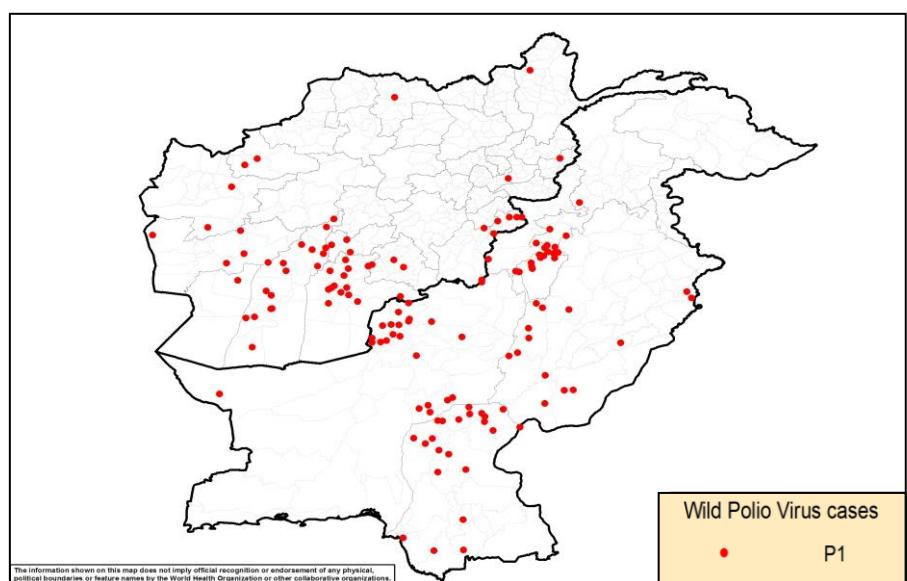


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

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



5(b) 01/01/2020 - 13/12/2020



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 50, ending 13 December 2020

14-Dec-20

Number 1158

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	BALKH	DEHDADI	1	15-Mar-20	15-Mar-20
	HIRAT	PASHTUNZARGHUN	1	29-Jun-20	29-Jun-20
		SHINDAND	1	21-Mar-20	21-Mar-20
	FARAH	BALABULUK	2	11-May-20	17-May-20
		ANARDARA	1	6-May-20	6-May-20
		BAKWA	1	4-Feb-20	4-Feb-20
	BADGHIS	QALA-E-NAW	1	5-Sep-20	5-Sep-20
		QADIS	1	13-May-20	13-May-20
	KUNAR	SHIGAL WA SHELTA	1	5-Mar-20	5-Mar-20
	LAGHMAN	MEHTARLAM	1	10-Feb-20	10-Feb-20
	PAKTIKA	NAKA	1	12-Aug-20	12-Aug-20
	KHOST	NADIR SHAHKOT	1	7-Sep-20	7-Sep-20
		BAK	2	3-Sep-20	7-Sep-20
		SABARI	1	8-Aug-20	8-Aug-20
		SPERA	1	1-Aug-20	1-Aug-20
		MARUF	1	14-Oct-20	14-Oct-20
	KANDAHAR	KANDAHAR	3	22-Jun-20	13-Sep-20
		ZHERAY	3	20-Jul-20	24-Aug-20
		SPINBOLDAK	1	25-Jul-20	25-Jul-20
		PANJWAYI	1	10-Jun-20	10-Jun-20
		SHAHWALIKOT	3	4-Mar-20	6-Jun-20
		NESH	1	23-May-20	23-May-20
		GHORAK	1	19-Mar-20	19-Mar-20
	ZABUL	QALAT	1	6-Aug-20	6-Aug-20
		ARGHANDAB (Z)	1	14-Jul-20	14-Jul-20
		MIZAN	1	21-Jan-20	21-Jan-20
	HILMAND	NAD-E-ALI	2	1-May-20	19-Oct-20
		WASHER	3	4-Jan-20	19-Oct-20
		BAGHRAN	2	16-Jul-20	4-Sep-20
		KAJAKI	2	10-Jun-20	27-Jul-20
		REG	4	25-May-20	3-Jun-20
		DEH-E-SHU	1	27-May-20	27-May-20
		NAWZAD	1	11-May-20	11-May-20
		SANGIN	1	7-May-20	7-May-20
	URUZGAN	SHAHID-E-HASSAS	3	14-Jun-20	12-Jul-20
		TIRINKOT	1	28-May-20	28-May-20
	NIMROZ	KHASHROD	1	28-Feb-20	28-Feb-20
		YAWAN	1	10-Mar-20	10-Mar-20
2020 Total			56	4-Jan-20	19-Oct-20
2019	HIRAT	PASHTUNZARGHUN	1	19-Nov-19	19-Nov-19
	FARAH	BAKWA	2	14-Nov-19	25-Nov-19
	BADGHIS	BALAMURGHAB	1	17-Oct-19	17-Oct-19
	NANGARHAR	KHOGYANI	1	18-Sep-19	18-Sep-19
	KUNAR	WATAPUR	1	8-May-19	8-May-19
	PAKTIKA	BERMEL	2	15-Sep-19	28-Sep-19
	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
	HILMAND	GARMER	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	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
	BAGHLAN	PUL-E-KHUMRI	1	14-Nov-19	14-Nov-19
2019 Total			29	4-Jan-19	7-Dec-19

World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 50, ending 13 December 2020

14-Dec-20

Number 1158

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	KHYBER PAKHTUNKHWA	PESHAWAR	1	13-Jul-20	13-Jul-20
		WAZIR-S	2	21-Feb-20	8-Jun-20
		BANNU	1	27-Apr-20	27-Apr-20
		TANK	4	11-Jan-20	15-Mar-20
		KARAK	2	20-Jan-20	13-Mar-20
		LAKKIMRWT	12	2-Jan-20	9-Mar-20
	BALOCHISTAN	QUETTA	5	17-Jul-20	5-Nov-20
		PISHIN	6	31-Jan-20	3-Oct-20
		KSAIFULAH	1	1-Sep-20	1-Sep-20
		KABDULAH	2	11-May-20	29-Jun-20
		CHAGHAI	1	4-Jun-20	4-Jun-20
		DUKKI	1	26-May-20	26-May-20
		JHALMAGSI	1	19-Apr-20	19-Apr-20
		ZHOB	2	22-Feb-20	13-Apr-20
		NSIRABAD	2	3-Jan-20	13-Apr-20
		SOHBATPUR	1	12-Feb-20	12-Feb-20
		JAFARABAD	1	12-Feb-20	12-Feb-20
		SIBI	1	7-Feb-20	7-Feb-20
	PUNJAB	LAYYAH	1	21-Oct-20	21-Oct-20
		MUZFARGARH	1	4-Oct-20	4-Oct-20
		VEHARI	1	16-Sep-20	16-Sep-20
		DGKHAN	5	18-Jan-20	14-Sep-20
		BAHAWALPUR	2	17-Aug-20	5-Sep-20
		RYKHAN	1	1-Sep-20	1-Sep-20
		LAHORE	2	12-Jun-20	24-Jul-20
		RAJANPUR	1	2-Jun-20	2-Jun-20
	SINDH	JACOBABAD	4	7-Feb-20	14-Jul-20
		GHOSTKI	4	2-Mar-20	9-Jul-20
		KHILANDHI	1	9-Jun-20	9-Jun-20
		LARKANA	1	21-May-20	21-May-20
		KAMBAR	3	8-Jan-20	11-Apr-20
		KHAIRPUR	1	27-Mar-20	27-Mar-20
		NFEROZ	2	8-Feb-20	22-Feb-20
		SHIKARPUR	1	11-Feb-20	11-Feb-20
		KASHMORE	2	16-Jan-20	3-Feb-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
2020 Total			82	1-Jan-20	5-Nov-20
2019	KHYBER PAKHTUNKHWA	LAKKIMRWT	32	27-May-19	31-Dec-19
		DIKHAN	4	5-May-19	21-Dec-19
		MOHMAND	1	20-Dec-19	20-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
		WAZIR-N	9	4-Apr-19	10-Oct-19
		TORGHAR	7	25-May-19	13-Sep-19
		WAZIR-S	1	20-Aug-19	20-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
		KHYBER	1	14-Feb-19	14-Feb-19
		BAJOUR	1	18-Jan-19	18-Jan-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
		QUETTA	1	6-Jul-19	6-Jul-19
	PUNJAB	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
		KHORANGI	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
2019 Total			147	15-Jan-19	31-Dec-19

World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

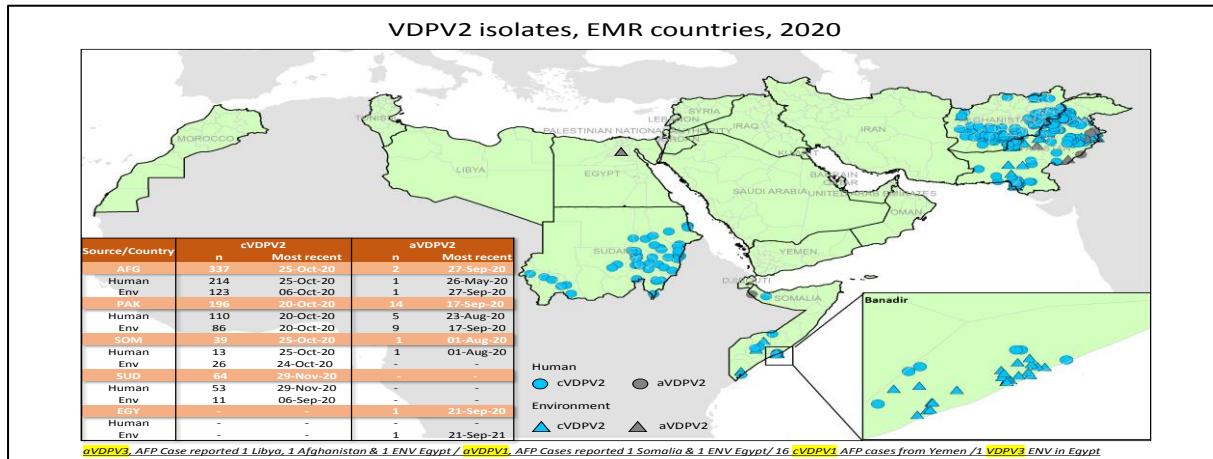
14-Dec-20

Week 50, ending 13 December 2020

Number 1158

Table 11: Circulating VDPV2 cases and date of onset of paralysis in EMR countries by provinces 2019-2020

YEAR	COUNTRY	PROVINCE	Count	First Case	Last Case
2020	SOM	LOWER JUBA	1	29-Aug-20	29-Aug-20
		GALBEED	1	29-Sep-20	29-Sep-20
		HIRAN	1	18-Oct-20	18-Oct-20
		MIDDLE SHABELLE	1	17-Jul-20	17-Jul-20
		BAY	2	3-Sep-20	25-Oct-20
	SUD	BANADIR	7	18-Jun-20	30-Sep-20
		SOUTH DARFUR	2	7-Mar-20	29-Apr-20
		EAST DARFUR	3	12-May-20	24-Jul-20
		KHARTOUM	3	15-Jul-20	24-Oct-20
		KASSALA	10	28-Jul-20	22-Sep-20
2020	AFG	GEZIRA	5	9-Jul-20	19-Sep-20
		RIVER NILE	5	29-Jun-20	27-Sep-20
		RED SEA	7	29-Apr-20	21-Oct-20
		WEST DARFUR	1	19-May-20	19-May-20
		BLUE NILE	3	7-Aug-20	3-Sep-20
		NORTH KORDOFAN	2	29-Aug-20	5-Oct-20
		SENNAR	1	16-Aug-20	16-Aug-20
		WHITE NILE	3	15-Jun-20	22-Aug-20
		GEDARIF	3	1-Apr-20	1-Aug-20
		FARAH	8	1-Jun-20	14-Oct-20
	PAK	HIRAT	2	10-Aug-20	15-Aug-20
		LOGAR	3	20-Aug-20	24-Oct-20
		KANDAHAR	53	4-Aug-20	25-Oct-20
		HILMAND	21	1-Aug-20	23-Oct-20
		JAWZIAN	1	4-Aug-20	4-Aug-20
		KABUL	7	6-Jul-20	12-Oct-20
		NURISTAN	2	21-Jun-20	13-Jul-20
		NIMROZ	3	6-Jul-20	8-Aug-20
		KHOST	16	5-Jul-20	19-Oct-20
		PAKTYA	4	18-Jun-20	5-Sep-20
2020	PAK	KUNDUZ	3	28-Aug-20	3-Oct-20
		PAKTIKA	5	25-Aug-20	7-Oct-20
		GHAZNI	1	29-Aug-20	29-Aug-20
		BADAKHSAN	1	23-Apr-20	23-Apr-20
		LAGHMAN	14	20-May-20	23-Sep-20
		TAKHAR	1	20-Sep-20	20-Sep-20
		ZABUL	5	17-Sep-20	22-Oct-20
		URUZGAN	5	28-Aug-20	21-Oct-20
		PARWAN	1	4-Sep-20	4-Sep-20
		WARDAK	4	6-Sep-20	22-10-20
2019	PAK	KUNAR	9	6-Apr-20	29-Sep-20
		NANGARHAR	45	5-Feb-20	21-Sep-20
		SINDH	34	2-May-20	20-Oct-20
		BALOCHISTAN	11	29-Feb-20	10-Oct-20
	SOM	PUNJAB	23	5-Feb-20	1-Oct-20
		KHYBER PAKHTUNKHWA	42	2-Jan-20	24-May-20
Total 2020			385	2-Jan-20	25-Oct-20
2019	PAK	PUNJAB	1	22-Nov-19	22-Nov-19
		KHYBER PAKHTUNKHWA	16	4-Sep-19	28-Dec-19
		ISLAMABAD	1	11-Sep-19	11-Sep-19
		GILGIT BALITSTAN	4	7-Jul-19	28-Aug-19
	SOM	BARI	1	8-May-19	8-May-19
		TOGDHER	1	21-Apr-19	21-Apr-19
Total 2019			25	15-Mar-19	28-Dec-19



A positive VDPV2 environmental sample was reported from Iran, from S & B province, with collection date 3 October 2020 - classification type still awaited