

Highlights of Polio Fax Bulletin No. 1148 for Week 40 2020

I. Salient features

1. Polio eradication teams at the Regional and Country levels are contributing into COVID19 Response, particularly in areas of surveillance (field and laboratory), data analysis, communications and coordination.
2. Wild Poliovirus Type-1 (WPV1): 4 new cases from Afghanistan & 15 new positive environmental samples from Pakistan
3. Vaccine Derived Poliovirus (VDPV):
 - cVDPV1: No new cases reported this week.
 - cVDPV2: 8 new cVDPV2 cases from Afghanistan 5 new cVDPV2 positive environmental samples, 2 from Afghanistan and 3 from Somalia.

Important: A new VDPV2 has been detected from an environmental sample collected on 21 September 2020, from Egypt (Giza). Genetic analysis reflects that virus is related with virus earlier detected in Sudan. The new PV2 virus is classified as cVDPV2, as described in GPEI Guidelines for Reporting and Classification of Vaccine-derived Polioviruses. This VDPV2 is from the same emergence (CHA-NDJ-1) which has originated from Chad and caused international spread to Sudan in the EMR and South Sudan, Cameroon and Central African Republic in the WHO's African Region. Comprehensive field investigation and risk analysis have been initiated in Egypt to strategize the programmatic response per SOPs.

Advance notification: 3 new WPV1 cases all from Pakistan – details will be shared in next bulletin.

II. Wild Poliovirus Transmission

Endemic countries (Pakistan & Afghanistan): Total WPV1 cases in 2020 to date is 125 (51 from Afghanistan and 74 from Pakistan). This compares with 96 cases in 2019 in the same period (20 from Afghanistan and 76 from Pakistan).

- a. *Human samples:* Four new WPV1 positive cases from Afghanistan.

Afghanistan: The new 4 WPV1 details are as follows:

Case (1): Reported from Baghram district, Hilmand province, with date of onset 4 September 2020. The case is a 22-months old male child. The child reportedly received only 1 OPV dose from supplementary immunization activities (SIAs) and none from routine.

Case (2): Reported from Qala-E-Naw district, Badghis province, with date of onset 5 September 2020. The case is a 4-months old male child. The child did not receive any OPV doses neither from routine nor from SIAs.

Case (3): Reported from Bak district, Khost province, with date of onset 7 September 2020. The case is a 16-months old female child. The child reportedly received only 1 OPV dose from routine and none from SIAs.

Case (4): Reported from Nadirshahkot district, Khost province, with date of onset 7 September 2020. The case is a 7-months old male child. The child reportedly received only 1 OPV dose from routine and none from SIAs.

In 2020, **51 WPV1 cases** have been reported so far: 16 cases from Kandahar province; 10 from Hilmand province; four each from Farah, Uruzgan and Khost provinces; three from Zabul province; two each from Herat and Badghis provinces; and one each from Nimroz, Laghman, Kunar, Badakhshan, Balkh and Paktika provinces. **The most recent case has onset of paralysis on 7 September 2020.**

Pakistan: In 2020 to date, **74 WPV1** cases are reported, 22 cases each from Khyber Pakhtunkhwa (KP) and Sindh provinces, 20 from Balochistan province and 10 from Punjab province. **The most recent case has onset of paralysis on 5 September 2020.**

- b. *Environmental samples:* 15 new WPV1 positive environmental samples all from Pakistan.

- **Afghanistan:** In 2020 to date, there are 29 WPV1 positive environmental samples including three combined (WPV1 and cVDPV2) with most recent sample collected on 6 September 2020.
- **Pakistan:** In 2020 to date, there are 355 WPV1 positive environmental samples including 39 combined (WPV1 and cVDPV2) and 3 combined (WPV1 and aVDPV2) with most recent positive sample collected on 22 September 2020.

III. **Vaccine Derived Polioviruses (VDPVs):** Total cVDPV2 cases in 2020 to date is 178 (79 from Afghanistan, 64 from Pakistan, 4 from Somalia and 23 from Sudan). This compares with 9 cases in 2019 in the same period (6 from Pakistan and 3 from Somalia).

Afghanistan: Eight new cVDPV2 cases and two positive environmental sample were reported this week.

Human samples: The 8 new cVDPV2 cases reported this week are from Farah province (Bakwa – 2 & Purchaman – 1), Hirat province (Kushk – 1), Logar province (Azra – 1), Khost province (Tani – 1), Nimroz province (Khashrod – 1) and Kandahar province (Arghandab – 1). The dates of onset of these cases vary between 19 July to 20 August 2020.

In 2020 to date, there are 87 cVDPV2 cases; 44 reported from Nangarhar province, 12 from Laghman province, 8 from Kunar province, 4 from Farah province, 3 each from Kabul, Nimroz and Khost provinces, 2 each from Nuristan and Kandahar provinces and one each from Badakhshan, Paktya, Jawzian, Hilmand, Hirat and Logar provinces and with **most recent case's onset on 20 August 2020.**

Environment: In 2020 to date, 78 cVDPV2 positive environmental samples including 3 combined (WPV1 and cVDPV2) were reported: 37 from Jalalabad, 10 from Batikot, 3 from Behsud districts, Nangarhar province, 8 from Kabul district, Kabul province, 4 from Asadabad and 8 from Kandahar districts, Kandahar province; 3 from Lashkargah district, Hilmand province; 2 each from Khost (Matun) district, Khost province and Mehtarlam (Gumeen) district, Laghman province and 1 from Gardez district, Paktya province,; with **most recent collection on 4 August 2020.**

Pakistan: In 2020 to date, there are 64 cVDPV2 cases reported. Cases include 42 from KP province, 11 from Punjab province, 10 from Sindh province and 1 from Balochistan province, with most recent case's onset on 18 August 2020. In addition to 5 aVDPV2 cases all from Punjab province, with most recent case's onset on 23 August 2020.

Environment: In 2020, there are 51 positive environmental samples for cVDPV2 so far (including 39 combined WPV1 and cVDPV2), the most recent sample collected on 12 August 2020. Also, there are five aVDPV2 isolates detected in the environment samples, which include three combined (WPV1 + aVDPV2). The most recent aVDPV2 positive environmental sample was collected on 10 April 2020.

SOMALIA: No new VDPV cases, but 3 new cVDPV2 positive environmental samples were reported this week. In 2020 to date: Four cVDPV2 cases reported from Abdul Aziz, Shibus, Dharkenley and Daynile districts, Banadir province, with **most recent date of onset 31 July 2020.** Also, there are 23 cVDPV2 positive environmental samples reported, the most recent collected on 29 August 2020.

SUDAN: No new VDPV cases or positive environmental samples reported this week. In 2020 to date, 23 cVDPV2 cases reported. **The most recent case has onset of paralysis on 18 August 2020.**

A total of eight environmental samples have been positive for cVDPV2 so far, all from Khartoum with most recent collection on 9 August 2020.

YEMEN: No new VDPV cases.

In 2020 to date, 14 cVDPV1 cases are reported. All cases are from Saadah province, 5 from Kitaf Wa Buga district, 3 each from Sahar and Al Safrah districts, and one each from Sageen, Saadh City and Majz districts. The dates of onset vary between 31 January to 5 June 2020.

IV. Surveillance performance indicators

In 2020, 13 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.

- Djibouti, Morocco and Tunisia are missing both indicators as their non-polio AFP rates are 1.1, 1.0 and 1.3 and their percentage of AFP cases with adequate stool specimens is 66.7%, 65.8% and 63.0%, respectively.
- Jordan, Oman, Palestine, Qatar, Saudi Arabia and United Arab Emirates have a non-polio AFP rate of 1.0, 1.6, 0.7, 0.6, 1.5 and 1.8 respectively.

World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 40, ending 4 October 2020

5-Oct-20

Number 1148

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

Country	Reported AFP cases by week of onset - Week (40/20) / Ending on : 04/10/2020																
	Total AFP 2018	Total AFP 2019	Total AFP to date, 2020	W29 19 Jul 20	W30 26 Jul 20	W31 02 Aug 20	W32 09 Aug 20	W33 16 Aug 20	W34 23 Aug 20	W35 30 Aug 20	W36 06 Sep 20	W37 13 Sep 20	W38 20 Sep 20	W39 27 Sep 20	W40 04 Oct 20		
Afghanistan	3378	3768	2800	94	72	69	96	73	94	91	116	95	94	38	5		
Bahrain	35	17	10	0	0	0	0	0	0	0	0	0	0	0	0		
Djibouti	0	5	3	0	0	0	0	0	0	2	0	1	0	0			
Egypt	1246	1343	691	16	14	7	14	23	23	29	20	25	21	20	5		
Iran	896	1070	443	9	14	10	11	11	15	10	16	12	7	0			
Iraq	1023	1157	319	7	1	3	2	3	4	8	6	8	6	4			
Jordan ****	115	113	28	0	1	1	2	0	0	0	0	0	0	1	1		
Kuwait	72	48	25	0	1	1	1	2	0	1	0	0	0	0	0		
Lebanon ****	89	87	38	0	1	1	2	0	0	1	1	2	1	1			
Libya	122	107	78	0	0	1	3	5	6	2	3	0	0	1			
Morocco	212	247	76	0	0	0	0	1	2	0	0	0	1	0			
Oman	28	30	14	0	1	0	0	0	0	0	0	1	0	1	0		
Pakistan	12276	15217	8374	183	175	176	217	232	242	182	259	242	256	90	0		
Palestine ****	44	62	10	0	0	0	0	0	0	0	0	0	0	0			
Qatar	10	9	2	0	0	0	0	0	0	0	0	1	0	0			
Saudi Arabia	242	236	95	4	2	1	1	5	5	1	2	5	4	2	0		
Somalia	353	361	292	6	10	5	6	8	10	7	8	4	7	0	0		
Sudan	579	608	468	13	15	12	22	29	30	26	29	24	27	15	1		
Syria ****	362	377	265	3	5	4	7	2	3	7	4	8	1	7			
Tunisia	68	79	27	1	0	0	1	1	1	0	0	1	0	0			
U.A.E	40	50	17	0	0	0	0	0	0	1	1	0	0	0			
Yemen	730	779	543	18	13	11	15	18	25	17	27	18	17	17	3		
Total EMR	21920	25770	14618	354	325	302	400	413	460	385	492	447	443	197	14		

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2018	Total year 2019	04/10		Confirmed polio cases by month of onset												
	2018	2019	2019	2020	November 2019	December 2019	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	
Afghanistan	21	29	20	51	7	1	2	3	7	0	12	10	7	6	4		
Bahrain	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		
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	0	0	0		
Morocco	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		
Pakistan	12	147	76	74	23	32	18	17	7	6	6	6	6	4	4		
Palestine ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Qatar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
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	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	0	0	0	0	0	0	0	0	0	0		
Total EMR	33	176	96	125	30	33	20	20	14	6	18	16	13	10	8	0	

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

AFP SURVEILLANCE

Week 40, ending 4 October 2020

5-Oct-20

Number 1148

Table 3: Investigation of AFP cases with paralysis onset in 2019 & 2020 up to Week (40/20) / Ending on : 04/10/2020

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	2800	51	0	361	2299	89	17.1	43	1	94.1	51	0	04/10/2020		
Bahrain	17	0	0	0	17	0	5.7	0	0	100.0	0	0	10	0	0	0	10	0	4.4	0	0	90.0	0	0	27/09/2020		
Djibouti	5	0	0	0	5	0	1.4	0	0	80.0	0	0	3	0	0	3	0	0	1.1	0	0	66.7	0	0	27/09/2019		
Egypt	1343	0	0	0	1343	0	3.6	0	0	93.4	0	0	691	0	0	88	603	0	2.3	0	0	91.9	0	0	01/10/2020		
Iran	1070	0	0	0	1069	1	5.2	0	0	97.1	0	0	443	0	0	14	429	0	2.8	0	0	99.3	0	0	03/10/2020		
Iraq	1157	0	0	0	1157	0	7.4	0	0	94.3	0	0	319	0	0	27	292	0	2.6	2	1	92.2	0	0	03/10/2020		
Jordan	113	0	0	0	113	0	3.9	0	0	100.0	0	0	28	0	0	2	26	0	1.0	0	0	100.0	0	0	01/10/2020		
Kuwait	48	0	0	0	48	0	5.4	0	0	89.6	0	0	25	0	0	0	25	0	3.7	0	0	84.0	0	0	28/09/2020		
Lebanon	87	0	0	0	87	0	4.7	0	0	89.7	0	0	38	0	0	21	17	0	2.7	11	10	94.7	0	0	03/10/2020		
Libya	107	0	0	0	107	0	4.3	0	0	98.1	0	0	78	0	0	18	59	1	3.9	0	0	100.0	0	0	03/10/2020		
Morocco	247	0	0	0	247	0	2.8	0	0	84.2	0	0	76	0	0	32	44	0	1.0	26	7	65.8	0	0	28/09/2020		
Oman	30	0	0	0	30	0	2.7	0	0	80.0	0	0	14	0	0	1	13	0	1.6	0	0	100.0	0	0	04/10/2020		
Pakistan	15217	147	6	1	15040	23	19.3	1	0	86.6	147	0	8374	74	7	950	7274	69	14.0	218	0	87.7	74	0	04/10/2020		
Palestine	62	0	0	0	62	0	3.5	0	0	98.4	0	0	10	0	0	4	6	0	0.7	4	0	100.0	0	0	20/09/2020		
Qatar	9	0	0	0	9	0	2.2	0	0	88.9	0	0	2	0	0	2	0	0	0.6	1	0	100.0	0	0	03/10/2020		
Saudi Arabia	236	0	0	0	236	0	2.8	0	0	93.2	0	0	95	0	0	29	66	0	1.5	0	0	94.7	0	0	04/10/2020		
Somalia	361	0	0	0	358	3	5.7	0	0	95.6	0	0	292	0	0	15	271	6	4.8	2	1	96.2	0	0	04/10/2020		
Sudan	608	0	0	0	608	0	3.4	0	0	96.4	0	0	468	0	0	95	351	23	3.2	4	0	94.4	0	0	01/10/2020		
Syria	377	0	0	0	377	0	4.8	0	0	88.1	0	0	265	0	0	13	252	0	4.4	0	0	91.3	0	0	03/10/2020		
Tunisia	79	0	0	0	78	1	2.9	0	0	74.7	0	0	27	0	0	4	23	0	1.3	2	0	63.0	0	0	02/10/2020		
U.A.E	50	0	0	0	50	0	4.0	0	0	90.0	0	0	17	0	0	6	11	0	1.8	3	3	100.0	0	0	28/09/2020		
Yemen	779	0	0	0	778	1	5.5	0	0	89.0	0	0	543	0	1	369	158	14	5.1	159	139	90.2	0	0	04/10/2020		
EMR	25770	176	7	1	25557	29	10.2	1	0	89.5	176	0	14618	125	8	2054	12229	202	7.3	475	162	90.1	125	0			
2018	21920	33	4	0	21868	15	8.7	0	0	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

World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 40, ending 4 October 2020

5-Oct-20

Number 1148

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	793	14	20	27
BAH	0	0	0	0	0	0	1	0	0	0
DJI	1	0	0	0	0	0	0	0	0	0
EGY	498	0	0	8	57	0	193	0	0	8
IRN	216	0	0	4	7	0	16	0	0	0
IRQ	603	0	0	12	39	6	152	0	0	1
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	0	0	0	0
LIB	6	0	0	0	3	0	0	0	0	0
MOR	85	0	0	3	1	30	8	0	0	0
OMA	78	0	0	2	28	0	40	0	0	2
PAK	5497	26	9	248	959	0	3346	18	6	283
PAL	0	0	0	0	0	0	0	0	0	0
QAT	0	0	0	0	0	0	0	0	0	0
SAA	43	0	0	1	0	0	9	0	0	1
SOM	1081	0	1	45	141	5	872	0	2	16
SUD	402	0	0	1	31	90	201	0	6	0
SYR	813	0	0	23	36	0	258	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	173	0	0	20
EMR	10935	34	12	401	1577	136	6067	32	34	349
										803
										611

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	18	4/Sep/20
2020 Total		32	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	URUGZAN	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
			LARKANA	1	24-Dec-19	24-Dec-19
			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 (40/2020) / Ending on : (04/10/2020)

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	VPDV	Wild	Sabin	VPDV	Wild	Sabin	VPDV									
Afghanistan	RRL Pakistan	2753	270	20	388	1864	209	2	46	81			4	78		76	1			2	43	14%	92%	100%	98%	04/10/2020	
Bahrain	NPL Oman / CDC	10			1	9																9%	100%		0%	28/09/2020	
Djibouti	NPL Kenya / CDC	3					1	2																		27/09/2020	
Egypt***	RRL Egypt	664	19	11	65	533	33	3		8						12				8	3	9%	94%	100%	99%	01/10/2020	
Iran	NPL Iran / CDC	448	5		5	429	9			3						3						1%	100%	100%	100%	03/10/2020	
Iraq	RRL Egypt	318			30	276	9	3														9%	95%	100%	97%	02/10/2020	
Jordan	NPL Jordan / RRL EGYPT	27			5	21	1															19%	100%		100%	28/09/2020	
Kuwait	RRL Kuwait / RIVM	26				24		2														1%	79%		92%	27/09/2020	
Lebanon	NPL Jordan / RRL EGYPT	32			5	27																15%	97%		100%	28/09/2020	
Libya	RRL Tunisia / RIVM	65	4			61											3	1					0%	100%	100%	65%	15/09/2020
Morocco	NPL Morocco / RRL Tunisia	59			1	58																1%	100%		98%	18/09/2020	
Oman	NPL Oman / CDC	13			2	11																15%	100%		100%	28/09/2020	
Pakistan	RRL Pakistan	8213	621	44	1081	5894	479	25	67	133			246	66		205		1	2	2	31	12%	94%	99%	97%	04/10/2020	
Palestine & UNRWA		10				10																0%	30%		100%	20/09/2020	
Qatar	NPL Oman / CDC	2				1	1															0%	100%		100%	28/09/2020	
Saudi Arabia	NPL Saudi Arabia / CDC	93				87	6															0%	100%		100%	27/09/2020	
Somalia	NPL Kenya / CDC	292	15	4	45	214	3	10		3	1			5	12					1	18%	5%		97%	04/10/2020		
Sudan	NPL Sudan / RRL Egypt	459	35		53	297	57	17		1			20	21								15%	99%	100%	57%	01/10/2020	
Syria	NPL Syria / RRL Egypt	263	11		12	229	11															4%	100%			01/10/2020	
Tunisia	RRL Tunisia	21				20		1														0%	100%		95%	15/09/2020	
U.A.E	NPL Oman / CDC	16				10	6															0%	100%		60%	28/09/2020	
Yemen	NPL Kenya / CDC	174	24		42	108				2	17			5				1		1	25%	96%	21%	0%	04/10/2020		
Total EMR 2020		13961	1004	79	1735	10183	825	65	113	231	18		270	170		316	2	1	12	6	75	12%	92%	97%	96%		
Total EMR 2019		24920	1057	100	3669	20055	1	26	152	576	1		46	25		629	1	3	21	6		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			
		Wild	cVDPV2	Wild+cVDPV2	cVDPV2	EV/SL	Negative	Pending	Wild	cVDPV2	EV/SL	Negative	Pending
AFG	Wild	2		42		83		56		26		3	
	cVDPV2											75	
	EV/SL	177		265		248		200		127			
	Negative	6		9		5		3		3			
	Pending									47			
AFG Total		185		316		336		259		281			
EGY	cVDPV2									1			
	EV/SL	492		481		508		666		346			
	Negative	36		41		32		34		32			
	Pending									21			
	aVDPV3									1			
	aVDPV1									1			
EGY Total		528		522		540		700		402			
IRN	Wild								3				
	EV/SL					5		51		65			
	Negative					1		3		3			
	Pending									2			
IRN Total						6		54		71		25	
JOR	EV/SL	2		29		36		36		15			
	Negative			2						1			
JOR Total		2		31		36		36		16			
KUW	EV/SL					3		3					
	Pending									8			
KUW Total						3		11					
LEB	EV/SL	2		26		44		44		12			
	Negative	2		1		1		3		2			
	Pending									1			
LEB Total		4		27		45		47		15			
PAK	Wild	59		105		139		367		313			
	Wild+cVDPV2	2						10		39			
	Wild+aVDPV2	1		1				2		3			
	cVDPV2	2						29		12			
	aVDPV2	3		4						2			
	EV/SL	456		523		531		420		206			
	Negative	6				3		4		4			
	Pending									38			
PAK Total		529		633		673		832		617			
SOM	cVDPV2			2		19		5		23			
	cVDPV3					11							
	aVDPV2					2		1					
	EV/SL			20		43		28		10			
	Negative			14		138		29		24			
	Pending									5			
SOM Total				36		213		63		62			
SUD	cVDPV2					15		42		12			
	EV/SL					1		1		2			
	Negative							17		13			
SUD Total						15		60		35			
SYR	EV/SL			4		81		155		128			
	Negative					21		30		15			
	Pending									10			
SYR Total				4		102		185		153			
TOTAL				1248		1575		2017		2264		1606	

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	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+cVDPV2	KPAKHTUNKHWA	1	31/Dec/19	31/Dec/19
			PUNJAB	5	6/Aug/19	16/Dec/19
			SINDH	4	7/Oct/19	18/Dec/19
		cVDPV2	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	cVDPV2	BANADIR	5	10/Nov/19	22/Dec/19
		aVDPV2	BANADIR	1	3/Feb/19	3/Feb/19
	SOM Total			6	3/Feb/19	22/Dec/19
				471	1/Jan/19	31/Dec/19
= 2020	AFG	Wild	HILMAND	11	1/Jan/20	6/Sep/20
			HIRAT	3	26/Apr/20	23/Aug/20
			KANDAHAR	10	28/Jan/20	25/Jun/20
			KHOST	1	25/Apr/20	25/Apr/20
			NANGARHAR	1	26/Jan/20	26/Jan/20
		Wild+cVDPV2	KANDAHAR	1	9/Jul/20	9/Jul/20
			NANGARHAR	2	8/Jan/20	25/Jul/20
		cVDPV2	HILMAND	3	27/May/20	3/Aug/20
			KABUL	8	26/Apr/20	3/Aug/20
			KANDAHAR	7	9/Jul/20	3/Aug/20
			KHOST	2	24/Jun/20	25/Jul/20
			KUNAR	4	6/Jun/20	4/Aug/20
			LAGHMAN	2	24/Jul/20	3/Aug/20
			NANGARHAR	48	7/Jan/20	4/Aug/20
			PAKTYA	1	26/Jul/20	26/Jul/20
	AFG Total			104	1/Jan/20	6/Sep/20
	EGY	cVDPV2	GIZA	1</td		

World Health Organization – Regional Office for Eastern Mediterranean
 AFP SURVEILLANCE
 Week 40, ending 4 October 2020

5-Oct-20
 Number 1148

Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2020 - 04/10/2020

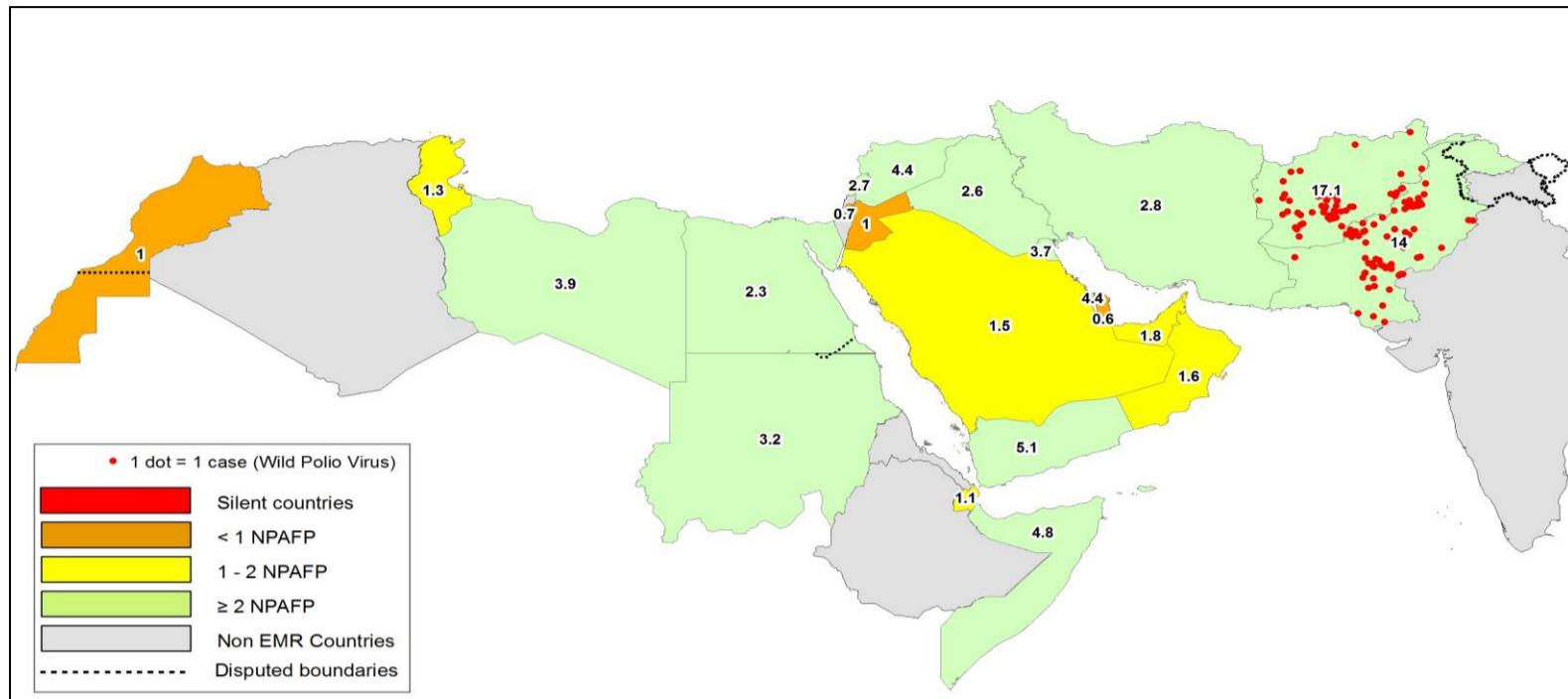


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2020 - 04/10/2020

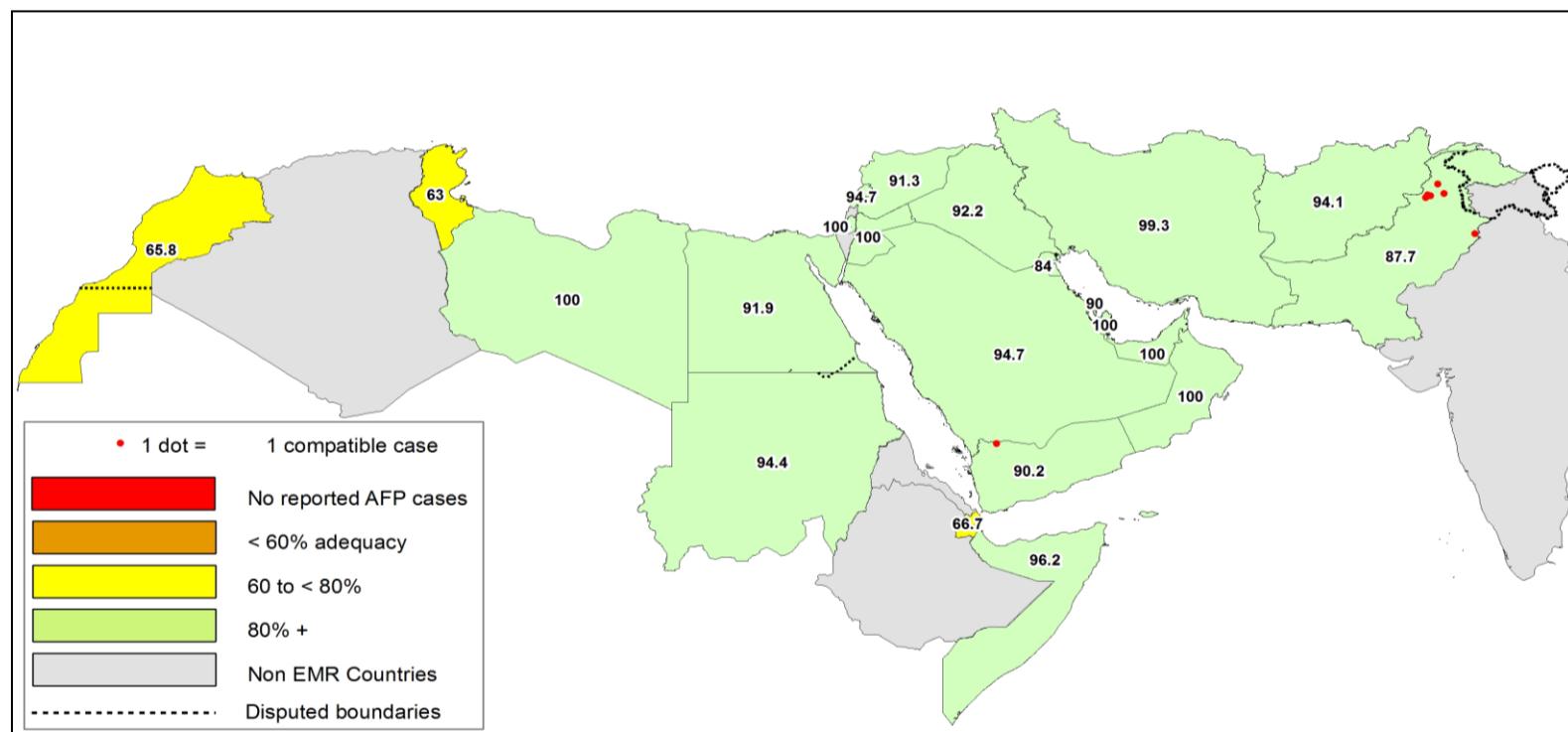


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2019 - 2020

Year	COUNTRY	Count	First Case	Last Case
2020	AFG	51	4-Jan-20	7-Sep-20
	PAK	74	1-Jan-20	5-Sep-20
2020 Total		125	1-Jan-20	7-Sep-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

Advance notification of 3 new WPV1 cases from Pakistan with onset in September 2020
 - their details will be shared in next bulletin

Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2020 - 04/10/2020

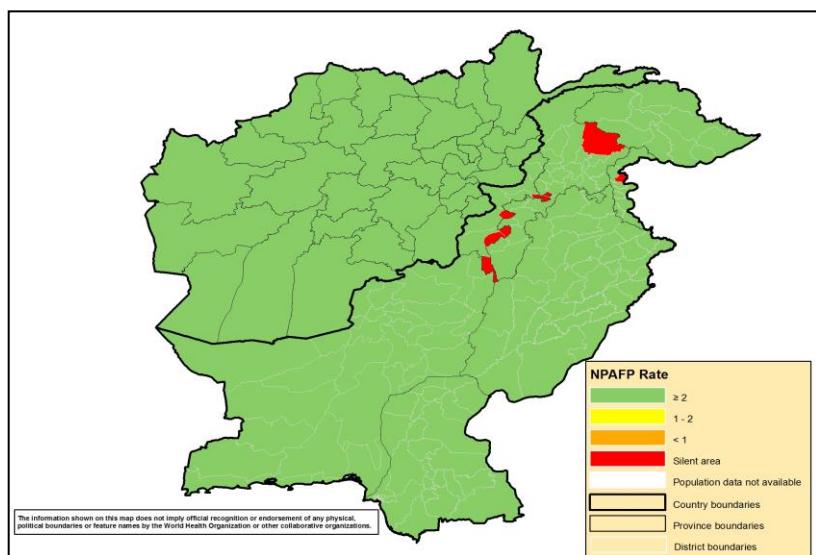


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2020 - 04/10/2020

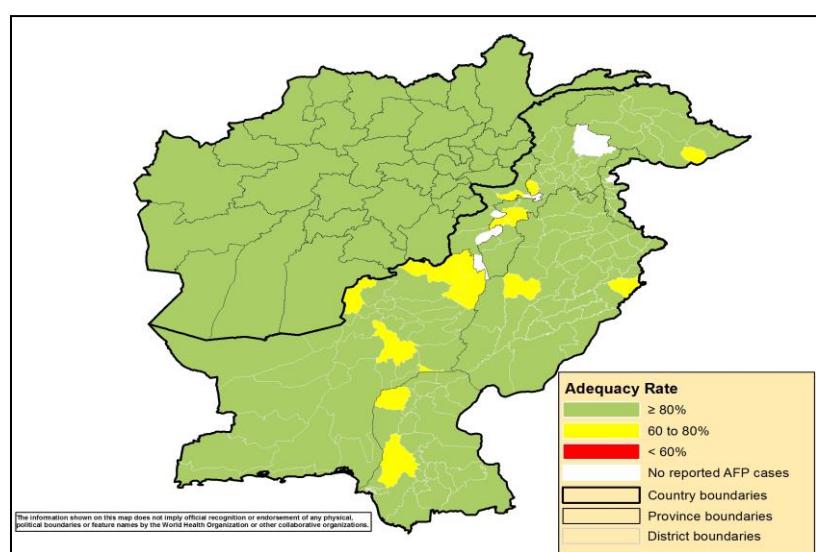
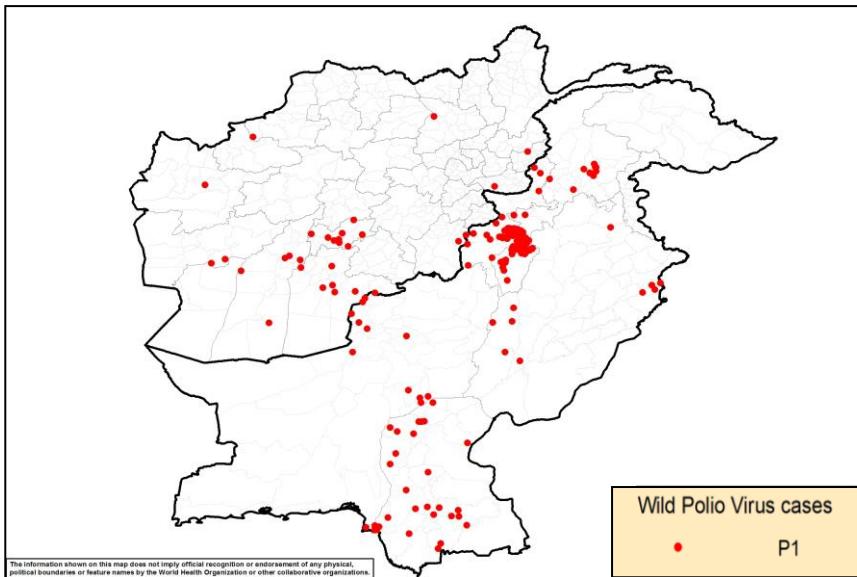
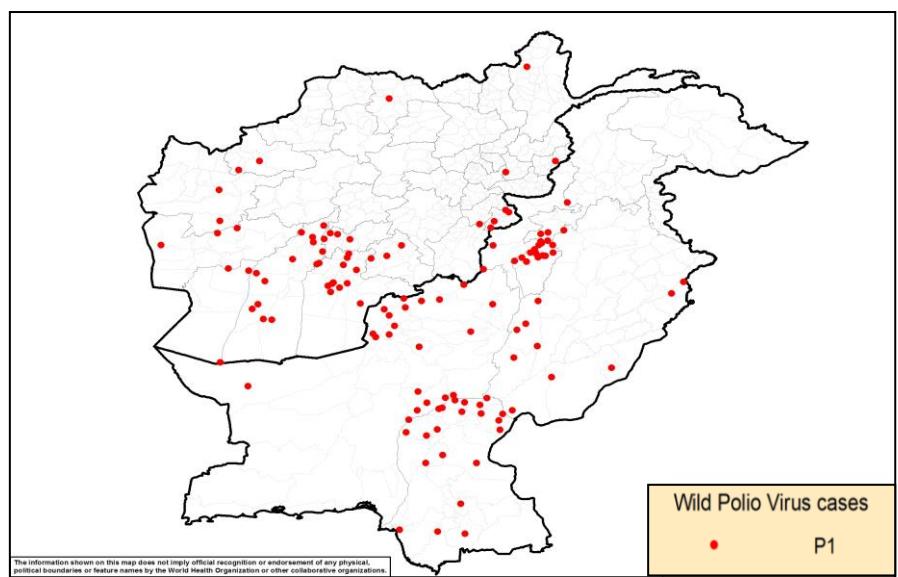


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

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



5(b) 01/01/2020 - 04/10/2020



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

Week 40, ending 4 October 2020

5-Oct-20

Number 1148

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

ONSET/yr	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	1	7-Sep-20	7-Sep-20
		SABARI	1	8-Aug-20	8-Aug-20
		SPERA	1	1-Aug-20	1-Aug-20
		ZHERAY	3	20-Jul-20	24-Aug-20
	KANDAHAR	KANDAHAR	2	22-Jun-20	6-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	BAGHRAN	2	16-Jul-20	4-Sep-20
		KAJAKI	2	10-Jun-20	27-Jul-20
		WASHER	2	4-Jan-20	13-Jun-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	NAD-E-ALI	1	1-May-20	1-May-20
		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
	BADAKHSHAN	YAWAN	1	10-Mar-20	10-Mar-20
2020 Total			51	4-Jan-20	7-Sep-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 40, ending 4 October 2020

5-Oct-20

Number 1148

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

ONSET/YR	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
		LAKKIMRW	12	2-Jan-20	9-Mar-20
	BALOCHISTAN	QUETTA	2	17-Jul-20	3-Sep-20
		KSAILULAH	1	1-Sep-20	1-Sep-20
		PISHIN	5	31-Jan-20	16-Aug-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
		JA FARABAD	1	12-Feb-20	12-Feb-20
		SOHBATPUR	1	12-Feb-20	12-Feb-20
		SIBI	1	7-Feb-20	7-Feb-20
	PUNJAB	BAHAWALPUR	2	17-Aug-20	5-Sep-20
		RYKHAN	1	1-Sep-20	1-Sep-20
		DGKHAN	4	18-Jan-20	8-Aug-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			74	1-Jan-20	5-Sep-20
2019	KHYBER PAKHTUNKHWA	LAKKIMRW	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
		JA FARABAD	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
		MUZFARGARGH	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

Advance notification of 3 new WPV1 cases from Pakistan with onset in September 2020
- their details will be shared in next bulletin

World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

5-Oct-20

Week 40, ending 4 October 2020

Number 1148

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	BANADIR	4	18-Jun-20	31-Jul-20
		SOUTH DARFUR	2	7-Mar-20	29-Apr-20
		EAST DARFUR	3	12-May-20	24-Jul-20
		KHARTOUM	1	3-Aug-20	3-Aug-20
		KASSALA	3	28-Jul-20	31-Jul-20
		GEZIRA	1	9-Jul-20	9-Jul-20
		RIVER NILE	3	29-Jun-20	18-Aug-20
		RED SEA	4	29-Apr-20	16-Aug-20
		WEST DARFUR	1	19-May-20	19-May-20
		BLUE NILE	2	7-Aug-20	17-Aug-20
	SUD	WHITE NILE	1	15-Jun-20	15-Jun-20
		GEDARIF	2	1-Apr-20	5-Jul-20
		FARAH	4	1-Jun-20	14-Aug-20
		HIRAT	1	10-Aug-20	10-Aug-20
		LOGAR	1	20-Aug-20	20-Aug-20
2020	AFG	KANDAHAR	2	4-Aug-20	4-Aug-20
		HILMAND	1	1-Aug-20	1-Aug-20
		JAWZIAN	1	4-Aug-20	4-Aug-20
		KABUL	3	6-Jul-20	8-Feb-20
		NURISTAN	2	21-Jun-20	13-Jul-20
		NIMROZ	3	6-Jul-20	8-Aug-20
		KHOST	3	5-Jul-20	6-Aug-20
		PAKTYA	1	18-Jun-20	18-Jun-20
		BADAKHSAN	1	23-Apr-20	23-Apr-20
		LAGHMAN	12	20-May-20	20-Jul-20
		KUNAR	8	6-Apr-20	11-Jul-20
		NANGARHAR	44	5-Feb-20	29-Jul-20
	PAK	SINDH	10	2-May-20	18-Aug-20
		BALOCHISTAN	1	29-Feb-20	29-Feb-20
		PUNJAB	11	5-Feb-20	13-Aug-20
		KHYBER PAKHTUNKHWA	42	2-Jan-20	24-May-20
Total 2020			178	2-Jan-20	20-Aug-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 BALTISTAN	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

