

## **Highlights of Polio Fax Bulletin No. 1124 for Week 16 2020**

### **I. Salient features**

1. Polio eradication teams at the Regional and Country levels are contributing into COVID19 Response, particularly in areas of surveillance, analytics and communications and coordination.
2. Wild poliovirus type-1 (WPV1): 3 new cases reported this week, one from Afghanistan and two from Pakistan - bringing total cases in 2020 to 45 (Afghanistan – 4 and Pakistan - 41)
3. Circulating Vaccine Derived Poliovirus type-2 (cVDPV2): 7 new cases from Pakistan – bringing total cases in 2020 to 40 all from Pakistan

**Advance notification:** The lab reported a new WPV1 case from Afghanistan from Mehtarlam district, Laghman province, with date of onset 10/02/2020 – details will be shared in next week bulletin.

### **II. Wild Poliovirus Transmission**

**Endemic countries (Pakistan & Afghanistan):** Following was reported this week:

- 3 new wild poliovirus type-1 (WPV1) cases; 1 from Afghanistan and 2 from Pakistan
  - 8 new WPV1 positive environmental samples from Pakistan
- a. **Human samples:** Three new WPV1 cases reported this week. Total WPV1 cases in 2020 to date is 45 (4 from Afghanistan and 41 from Pakistan). This compares with 20 cases in 2019 in the same period (7 from Afghanistan and 13 from Pakistan).
- **Afghanistan:** One new WPV1 case reported and details as follows:  
The case reported from Khashrod district, Nimroz province, with date of onset 28 February 2020. The case is a 48-month old male child. The child reportedly received only 1 OPV dose from supplementary immunization activities (SIAs) and none from routine. The index case was identified by a positive wild contact.  
In 2020, 4 WPV1 cases are reported, one each from Hilmand, Zabul, Farah and Nimroz provinces. The most recent case has onset of paralysis on 28 February 2020.
  - **Pakistan:** Two new WPV1 case reported and details as follows:  
**Case (1):** Reported from Khairpur district, Sindh province, with date of onset 27 March 2020. The case is a 14-month old male child. The child reportedly received 3 OPV doses from routine and 7 doses from SIAs.  
**Case (2):** Reported from Pishin district, Balochistan province, with date of onset 31 March 2020. The case is an 8-month old male child. The child reportedly received only 6 OPV doses from SIAs and none from routine.  
In 2020, 41 WPV1 cases are reported, 18 cases from KP province, 15 from Sindh province, 6 from Balochistan province and one each from Punjab province and KP Tribal Districts. The most recent case has onset of paralysis on 31 March 2020.
- b. **Environmental samples:** 8 new WPV1 positive environmental samples reported this week all from Pakistan in 2020:
- **Afghanistan:** In 2020 to date, there are 8 WPV1 positive environmental samples including 1 combined (WPV1 and cVDPV2) with most recent sample collected on 25 February 2020.
  - **Pakistan:** In 2020 to date, there are 116 WPV1 positive environmental samples including 7 combined (WPV1 and cVDPV2) with most recent positive sample collected on 30 March 2020.

### **III. Vaccine Derived Polioviruses (VDPVs)**

1. **Afghanistan:** No new VDPV cases or positive environmental samples reported this week.

In 2020 to date, 10 circulating VDPV2 (cVDPV2) positive environmental samples including 1 combined (WPV1 and cVDPV2) were reported; 8 from Jalalabad and 2 from Batikot districts, Nangarhar province, with most recent collection on 8 March 2020.

2. Pakistan: Nine new VDPV2 cases (7 circulating cVDPV2 + 2 ambiguous aVDPV2) and three new cVDPV2 environmental samples were reported this week.

The 7 new cVDPV2 cases are one each from Quetta district (Balochistan province), Nowshera, Khyber and Dir Lower districts (Khyber Pakhtunkhwa (KP) province); and three from Lakki Marwat district in KP. The new cVDPV2 cases have dates of onset varying between 1 February to 12 March 2020.

In 2020 to date, there are 40 cVDPV2 cases reported. Cases include 36 from KP province, 3 from Punjab province and 1 from Balochistan province, with most recent case's onset on 12 March 2020.

2 new ambiguous VDPV2 (aVDPV2) cases both from Gujranwala district, Punjab province, with dates of onset 5 and 8 March 2020.

Environment: In 2020, there are 11 positive environmental samples for cVDPV2 (including 7 combined WPV1 and cVDPV2), the most recent sample collected on 11 March 2020.

3. SOMALIA: No new VDPV isolates from human or environmental samples were reported.

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

*An AFP case with VDPV1 was earlier reported from Lughaya district, Awdal province, with date of onset 26 January 2020. Field investigation has been completed. There is no epidemiological or genetic links with previously known VDPV1 per available information.*

4. LIBYA: A new Event comprising reporting of immune deficient VDPV type-3 (iVDPV3) case from Msalth district, Tarabulus province, with date of onset 15 January 2020. The case is a 7-month old male child. The child has died.

#### IV. Surveillance performance indicators

In 2020, 15 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 and Qatar are missing both indicators since they did not report any AFP case in 2020
- Morocco and Tunisia are also missing both indicators as their non-polio afp rate is 1.7 and 1.0 and percentage of AFP cases with adequate stool specimens is 71.7% and 75.0% respectively.
- Jordan, Palestine and Saudi Arabia have a non-polio AFP rate of 1.6, 1.1 and 1.5 respectively.

## World Health Organization – Regional Office for Eastern Mediterranean

## AFP SURVEILLANCE

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

Country	Reported AFP cases by week of onset - Week (16/20) / Ending on : 19/04/2020														
	Total AFP 2018	Total AFP 2019	Total AFP to date, 2020	W05 02 Feb 20	W06 09 Feb 20	W07 16 Feb 20	W08 23 Feb 20	W09 01 Mar 20	W10 08 Mar 20	W11 15 Mar 20	W12 22 Mar 20	W13 29 Mar 20	W14 5 Apr 20	W15 12 Apr 20	W16 19 Apr 20
Afghanistan	3378	3768	960	97	60	66	78	59	51	61	55	57	50	28	3
Bahrain	35	17	7	1	1	1	2	1	0	0	0	1	0	0	
Djibouti	0	5	0	0	0	0	0	0	0	0	0	0	0	0	
Egypt	1246	1343	274	23	22	11	23	22	20	15	12	18	9	8	
Iran	896	1070	198	25	22	27	13	3	9	1	3	1	1	0	1
Iraq	1023	1157	195	21	24	17	13	11	7	4	6	6	7	2	2
Jordan ****	115	113	19	0	3	2	3	1	0	0	0	0	0	1	1
Kuwait	72	48	12	0	2	1	2	2	0	0	1	0	0	0	1
Lebanon ****	89	87	23	2	2	1	2	4	1	1	0	0	0	0	
Libya	122	107	39	4	3	3	3	4	2	0	3	0	1	2	
Morocco	212	247	46	5	4	2	8	3	6	2	1	0			
Oman	28	30	8	2	0	0	1	1	0	1	1	0	0	1	0
Pakistan	12276	15215	3878	323	306	378	352	300	246	283	164	106	82	40	0
Palestine ****	44	62	6	1	1	1	0	0	0	0	0	0	0	0	
Qatar	10	9	0	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	242	236	38	0	5	7	3	3	4	0	0	0	0	0	
Somalia	353	361	138	16	6	12	7	12	8	7	12	8	10	1	0
Sudan	579	608	121	13	13	2	7	6	10	10	6	2	5	0	
Syria ****	362	377	104	15	8	12	5	9	4	8	3	2	1	1	2
Tunisia	68	79	8	0	2	0	0	0	0	0	2	0	0	0	
U.A.E	40	50	11	3	2	1	0	0	0	0	0	0	0	0	0
Yemen	730	779	199	16	15	20	16	12	10	20	10	12	13	1	
<b>Total EMR</b>	<b>21920</b>	<b>25768</b>	<b>6284</b>	<b>567</b>	<b>501</b>	<b>564</b>	<b>538</b>	<b>453</b>	<b>378</b>	<b>413</b>	<b>279</b>	<b>213</b>	<b>179</b>	<b>85</b>	<b>10</b>

No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2018	Total year 2019	19/04		Confirmed polio cases by month of onset											
			2019	2020	May 2019	June 2019	July 2019	August 2019	September 2019	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020	April 2020
Afghanistan	21	29	7	4	5	1	2	2	3	1	7	1	2	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	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	0	
Pakistan	12	147	13	41	11	16	12	14	5	17	23	32	18	16	7	
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		
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	0	
Yemen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total EMR</b>	<b>33</b>	<b>176</b>	<b>20</b>	<b>45</b>	<b>16</b>	<b>17</b>	<b>14</b>	<b>16</b>	<b>8</b>	<b>18</b>	<b>30</b>	<b>33</b>	<b>20</b>	<b>18</b>	<b>7</b>	<b>0</b>

\*\*\*\* 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 &amp; 2020 up to Week (16/20) / Ending on : 19/04/2020)

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	Wild P1 Poliovirus	Wild P3 Poliovirus	
		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	0	3738	0	18.1	0	0	94.1	29	0	960	4	0	302	654	0	15.0	8	0	95.0	4	0	19/04/2020
Bahrain	17	0	0	0	17	0	5.9	0	0	100.0	0	0	7	0	0	7	0	0	8.0	0	0	100.0	0	0	12/04/2020
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	16/03/2019
Egypt	1343	0	0	0	1343	0	3.6	0	0	93.4	0	0	274	0	0	53	221	0	2.4	0	0	92.3	0	0	16/04/2020
Iran	1070	0	0	0	1069	1	5.2	0	0	97.1	0	0	198	0	0	8	190	0	3.2	0	0	100.0	0	0	18/04/2020
Iraq	1157	0	0	0	1157	0	7.4	0	0	94.3	0	0	195	0	0	31	164	0	4.0	1	0	91.3	0	0	17/04/2020
Jordan	113	0	0	0	113	0	3.9	0	0	100.0	0	0	19	0	0	2	17	0	1.6	0	0	100.0	0	0	16/04/2020
Kuwait	48	0	0	0	48	0	5.4	0	0	89.6	0	0	12	0	0	5	7	0	4.1	0	0	83.3	0	0	19/04/2020
Lebanon	87	0	0	0	87	0	4.7	0	0	89.7	0	0	23	0	0	6	17	0	4.1	0	0	100.0	0	0	17/04/2020
Libya	107	0	0	0	107	0	4.3	0	0	98.1	0	0	39	0	0	11	27	1	5.2	0	0	100.0	0	0	18/04/2020
Morocco	247	0	0	0	247	0	2.8	0	0	84.2	0	0	46	0	0	28	18	0	1.7	0	0	71.7	0	0	03/04/2020
Oman	30	0	0	0	30	0	2.7	0	0	80.0	0	0	8	0	0	1	7	0	2.3	0	0	87.5	0	0	19/04/2020
Pakistan	15215	147	5	178	14862	23	19.3	178	0	86.6	147	0	3878	41	0	506	3289	42	16.3	85	0	89.3	41	0	19/04/2020
Palestine	62	0	0	0	62	0	3.3	0	0	98.4	0	0	6	0	0	6	0	0	1.1	1	0	100.0	0	0	12/04/2020
Qatar	9	0	0	0	9	0	2.2	0	0	88.9	0	0	0	0	0	0	0	0	0.0	0	0		0	0	19/04/2020
Saudi Arabia	236	0	0	0	236	0	2.8	0	0	93.2	0	0	38	0	0	28	10	0	1.5	4	0	94.7	0	0	12/04/2020
Somalia	361	0	0	0	358	3	5.7	0	0	95.6	0	0	138	0	0	26	111	1	5.7	0	0	95.7	0	0	19/04/2020
Sudan	608	0	0	0	608	0	3.4	0	0	96.4	0	0	121	0	0	12	109	0	2.1	1	0	96.7	0	0	16/04/2020
Syria	377	0	0	0	377	0	4.8	0	0	88.1	0	0	104	0	0	16	88	0	4.3	0	0	92.3	0	0	18/04/2020
Tunisia	79	0	0	0	78	1	2.9	0	0	74.7	0	0	8	0	0	7	1	0	1.0	1	0	75.0	0	0	17/04/2020
U.A.E	50	0	0	0	50	0	4.0	0	0	90.0	0	0	11	0	0	1	10	0	2.9	0	0	100.0	0	0	19/04/2020
Yemen	779	0	0	163	616	0	5.5	163	145	89.0	0	0	199	0	0	160	39	0	4.7	9	6	94.0	0	0	14/04/2020
EMR	25768	176	6	341	25217	28	10.1	341	145	89.4	176	0	6284	45	0	1216	4979	44	8.0	110	6	91.2	45	0	
2018	21920	33	4	86	21782	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 &lt;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	239	3	0	17	20	49
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	83	0	0	7	2	25
IRN	216	0	0	4	7	0	0	0	0	0	0	0
IRQ	603	0	0	12	39	6	104	0	0	0	5	14
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	0	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	35	0	0	2	6	0
PAK	5497	26	9	248	959	0	1747	12	4	222	168	109
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	2	0	0	0	0	2
SOM	1080	0	1	45	141	5	419	0	0	8	48	85
SUD	402	0	0	1	31	90	32	0	0	0	2	7
SYR	813	0	0	23	36	0	206	0	0	8	3	12
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	0	0	0	0	0	0	0	0	0	0	0	0
<b>EMR</b>	<b>10512</b>	<b>34</b>	<b>10</b>	<b>395</b>	<b>1509</b>	<b>131</b>	<b>2869</b>	<b>15</b>	<b>4</b>	<b>264</b>	<b>254</b>	<b>303</b>

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	3	7/Mar/20
	Pakistan	12	13/Mar/20
<b>2020 Total</b>		<b>15</b>	<b>13/Mar/20</b>
2019	Afghanistan	8	17/Aug/19
	Pakistan	26	26/Dec/19
<b>2019 Total</b>		<b>34</b>	<b>26/Dec/19</b>

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	
			KHASHROD	1	28-Feb-20	28-Feb-20	
	PAK	PUNJAB	DG KHAN	1	18-Jan-20	18-Jan-20	
			KARAK	1	20-Jan-20	20-Jan-20	
			JACOBABAD	1	07-Feb-20	07-Feb-20	
<b>2020 Total</b>				<b>5</b>	<b>04-Jan-20</b>	<b>28-Feb-20</b>	
2019	AFG	URUZGAN	TIRINKOT	1	2-Aug-19	2-Aug-19	
			MUSAQALAH	1	05-Jun-19	05-Jun-19	
			SANGIN	1	06-Mar-19	06-Mar-19	
	PAK	PUNJAB	DG KHAN	2	2-Dec-19	10-Dec-19	
			KHIORANGI	1	28-Aug-19	28-Aug-19	
		SUJAWAL	1	25-Sep-19	25-Sep-19		
		JAMSHORO	1	09-Oct-19	09-Oct-19		
		SINDH	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	
		BALOCHSITAN	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		
	KHYBER PAKHTUNKHWA (KP)		TANK	1	30-Oct-19	30-Oct-19	
			LAKKIMRWAT	3	27-May-19	04-Oct-19	
	<b>2019 Total</b>				<b>24</b>	<b>06-Mar-19</b>	<b>24-Dec-19</b>

Table 5: Laboratory investigation of AFP cases with paralysis onset in 2020 up to Week (16/2020) / Ending on : (19/04/2020)

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	921	83	7	67	539	238		3 *	57						54						6	8%	100%	100%	100%	18/04/2020
Bahrain	NPL Oman / CDC																										14/04/2020
Djibouti	NPL Kenya / CDC																										16/03/2020
Egypt***	RRL Egypt	268	16	2	18	206	20	6		8								1	3				6%	100%	100%	100%	16/04/2020
Iran	NPL Iran / CDC	214	3		2	201	8			3													1%	100%	100%	100%	18/04/2020
Iraq	RRL Egypt	192			17	150	10	15															9%	100%		100%	16/04/2020
Jordan	NPL Jordan / RRL EGYPT	19			3	14	2																18%	100%		100%	16/04/2020
Kuwait	RRL Kuwait / RIVM	11				6		5															4%	100%		100%	19/04/2020
Lebanon	NPL Jordan / RRL EGYPT	19			5	14																	26%	100%		100%	16/04/2020
Libya	RRL Tunisia / RIVM	27	3			15		9								3							0%	100%	100%	100%	06/03/2020
Morocco	NPL Morocco / RRL Tunisia	32			1	25		6															2%	100%		100%	13/03/2020
Oman	NPL Oman / CDC	7			2	5																	20%	100%		100%	14/04/2020
Pakistan	RRL Pakistan	3853	395	35	329	2882	208		36 **	116			112	40		185		1		1	19	8%	100%	98%	98%	18/04/2020	
Palestine & UNRWA		6				6																	0%	33%		100%	12/04/2020
Qatar	NPL Oman / CDC																										14/04/2020
Saudi Arabia	NPL Saudi Arabia / CDC	43				40	3																0%	100%		100%	19/04/2020
Somalia	NPL Kenya / CDC	138	2	1	24	85	9	17		1	1					2							22%	9%		99%	19/04/2020
Sudan	NPL Sudan / RRL Egypt	120	2		13	99	6																13%	100%			19/04/2020
Syria	NPL Syria / RRL Egypt	100	7			85	3	5															1%	100%			16/04/2020
Tunisia	RRL Tunisia	6				4		2															0%	100%		100%	06/03/2020
U.A.E	NPL Oman / CDC	10				9	1																0%	100%		67%	14/04/2020
Yemen	NPL Kenya / CDC	76	4		13	22	36	1								2						2	33%	87%	100%	0%	14/04/2020
<b>Total EMR 2020</b>		6062	515	45	494	4407	544	66	39	185	1		112	40		254		1	1	4	27	8%	98%	99%	98%		
<b>Total EMR 2019</b>		24690	1049	99	3620	19880	1	29	152	572	1		46	24		623	1	3	21	6	2	12%	95%	99%	97%		

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

\*\* This indicator reflects surveillance and laboratory activities

\* Advance notification from the lab of a new WPV1 case from Afghanistan reported from Laghman province in February 2020 - details will be shared next bulletin

\*\* Advance notification of 2 new WPV1 cases from Pakistan reported from Sindh &amp; Balochistan provinces in March 2020 - Lab details will be shared next bulletin

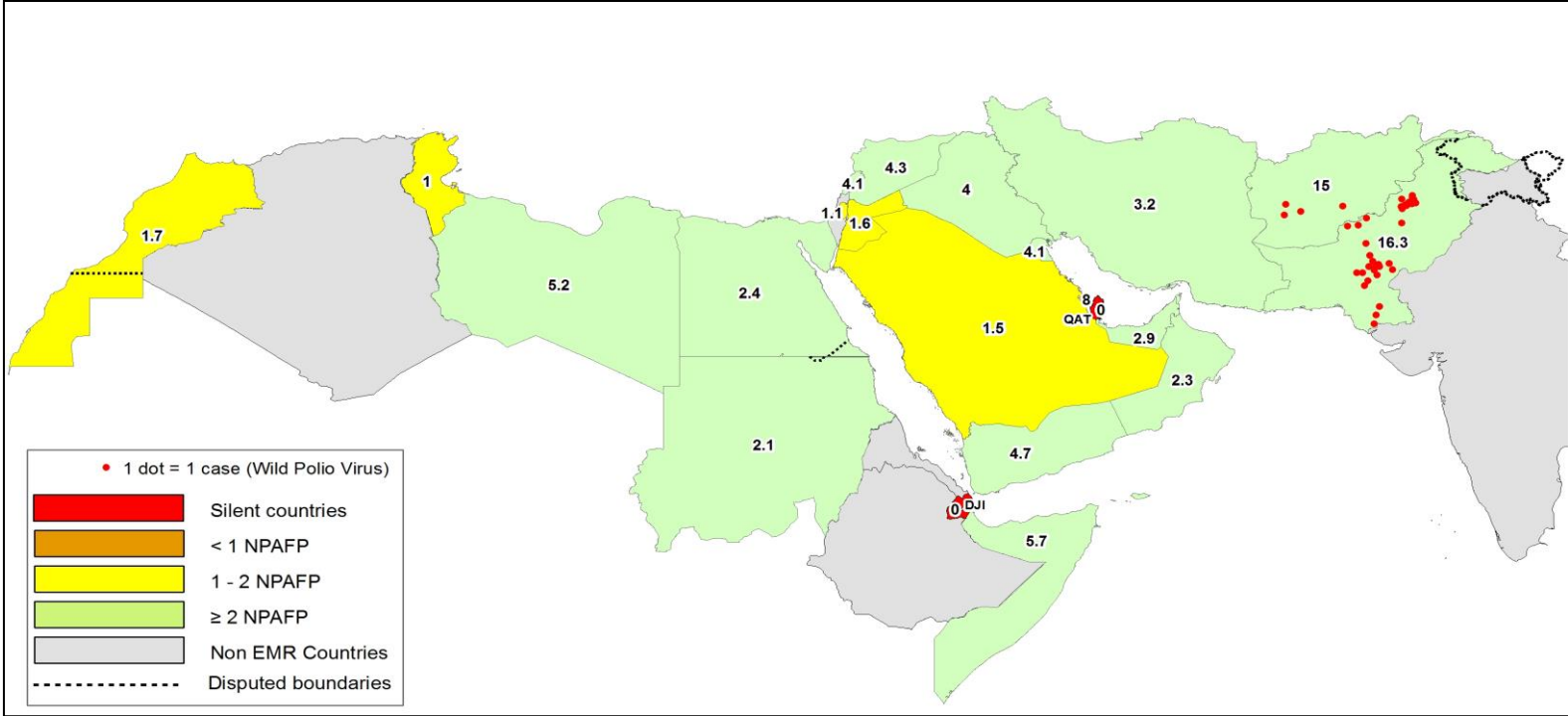
**Table 6: Environmental isolate by year and type**

COUNTRY	LAB RESULTS	2016	2017	2018	2019	2020
AFG	Wild	2	42	83	56	7
	Wild+cVDPV2					1
	cVDPV2					9
	EV/SL	177	265	248	200	38
	Negative	6	9	5	3	
AFG Total		185	316	336	259	90
EGY	EV/SL	492	481	508	666	113
	Negative	36	41	32	34	11
	Pending					29
EGY Total		528	522	540	700	153
IRN	Wild				3	
	EV/SL		5	51	65	10
	Negative		1	3	3	
IRN Total			6	54	71	10
JOR	EV/SL	2	29	36	36	2
	Negative		2			1
	Pending					6
JOR Total		2	31	36	36	9
KUW	EV/SL			3	3	
	Pending				8	
KUW Total				3	11	
LEB	EV/SL	2	26	44	44	4
	Negative	2	1	1	3	
	Pending					4
LEB Total		4	27	45	47	8
PAK	Wild	60	106	139	368	109
	Wild+cVDPV2	2			10	7
	cVDPV2	2			25	4
	aVDPV2	3	4		2	
	EV/SL	456	523	531	421	58
	Negative	6		3	4	2
PAK Total		529	633	673	831	244
SOM	cVDPV2		2	19	5	4
	cVDPV3			11		
	aVDPV2			2	1	
	EV/SL		20	43	28	5
	Negative		14	138	29	12
SOM Total			36	213	63	28
SUD	EV/SL			15	42	9
	Negative				1	1
	Pending				17	5
SUD Total				15	60	15
SYR	EV/SL		4	81	155	41
	Negative			21	30	9
	Pending					11
SYR Total			4	102	185	61
<b>TOTAL</b>		<b>1248</b>	<b>1575</b>	<b>2017</b>	<b>2263</b>	<b>618</b>

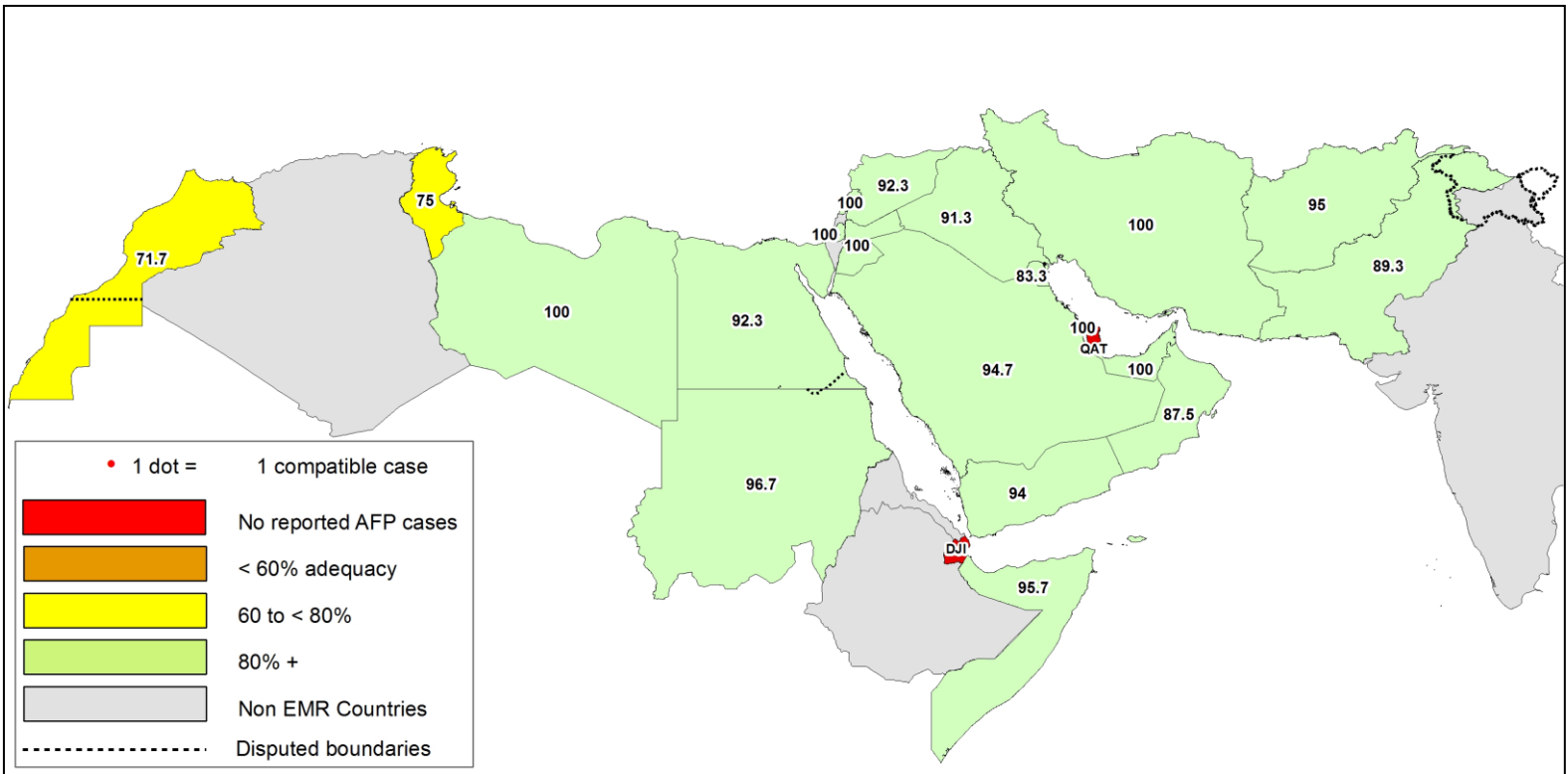
**Table 7: Environmental Wild/VPV isolate by site 2019-2020**

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
	IRN Total			3	22/Apr/19	20/May/19
	PAK	Wild	BALUCHISTAN	72	1/Jan/19	20/Dec/19
			ISLAMABAD	3	12/Apr/19	21/Aug/19
			KPAKHTUNKHWA	40	8/Jan/19	28/Dec/19
			PUNJAB	98	5/Jan/19	17/Dec/19
			SINDH	155	2/Jan/19	20/Dec/19
		Wild+cVDPV2	KPAKHTUNKHWA	1	31/Dec/19	31/Dec/19
			PUNJAB	5	6/Aug/19	16/Dec/19
		cVDPV2	SINDH	4	7/Oct/19	18/Dec/19
			GBALTIKISTAN	5	24/Aug/19	6/Nov/19
			ISLAMABAD	1	12/Nov/19	12/Nov/19
			KPAKHTUNKHWA	8	9/Oct/19	24/Dec/19
aVDPV2	PUNJAB	10	21/Aug/19	17/Dec/19		
	SINDH	1	19/Dec/19	19/Dec/19		
aVDPV2	PUNJAB	2	11/Apr/19	18/Dec/19		
PAK Total			405	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			470	1/Jan/19	31/Dec/19	
2020	AFG	Wild	HILMAND	2	1/Jan/20	25/Feb/20
			KANDAHAR	4	28/Jan/20	25/Feb/20
			NANGARHAR	1	26/Jan/20	26/Jan/20
			Wild+cVDPV2	1	8/Jan/20	8/Jan/20
			cVDPV2	9	7/Jan/20	8/Mar/20
	AFG Total			17	1/Jan/20	8/Mar/20
	PAK	Wild	AJK	1	25/Feb/20	25/Feb/20
			BALUCHISTAN	26	1/Jan/20	28/Mar/20
			ISLAMABAD	1	16/Jan/20	16/Jan/20
			KPAKHTUNKHWA	5	28/Jan/20	2/Mar/20
			PUNJAB	29	4/Jan/20	30/Mar/20
		Wild+cVDPV2	SINDH	47	3/Jan/20	18/Mar/20
			BALUCHISTAN	2	1/Feb/20	2/Mar/20
		cVDPV2	PUNJAB	2	4/Jan/20	10/Feb/20
			SINDH	3	3/Jan/20	5/Mar/20
			KPAKHTUNKHWA	4	10/Jan/20	11/Mar/20
	PAK Total			120	1/Jan/20	30/Mar/20
SOM	cVDPV2	BANADIR	4	5/Jan/20	4/Feb/20	
SOM Total			4	5/Jan/20	4/Feb/20	
2020 Total			141	1/Jan/20	30/Mar/20	

**Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2020 - 19/04/2020**



**Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2020 - 19/04/2020**

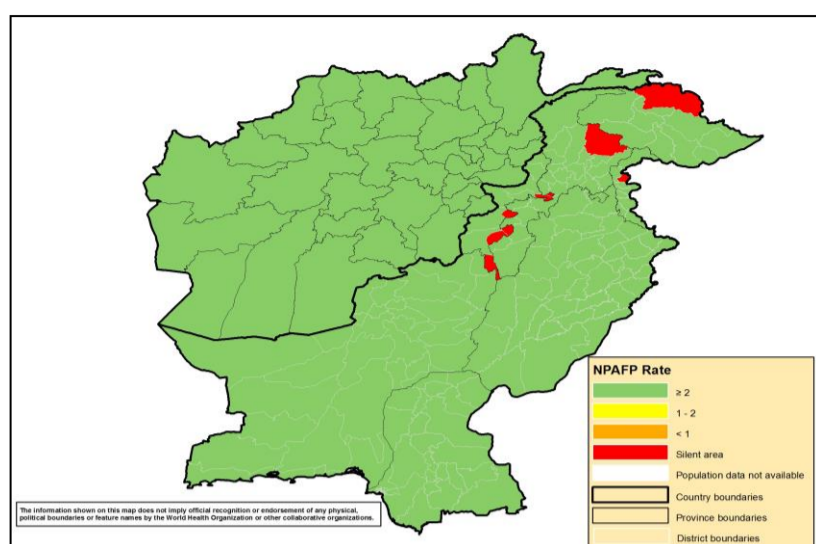


**Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2019 - 2020**

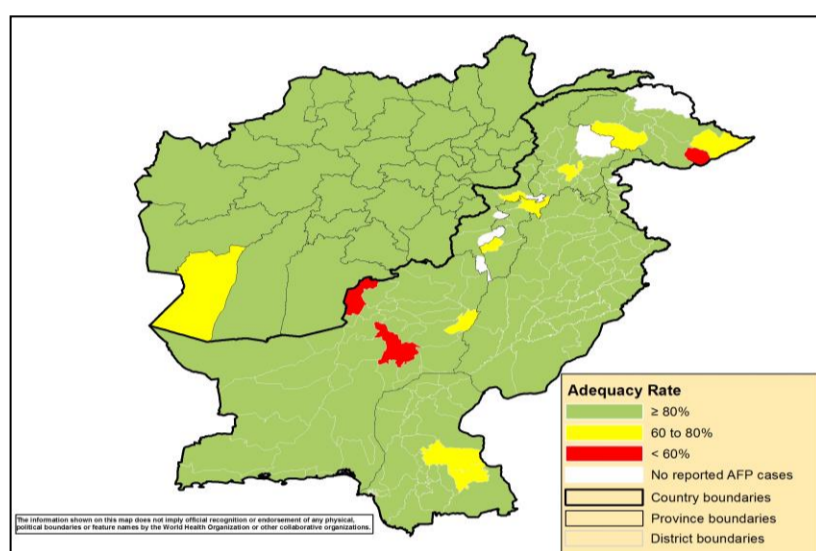
Year	COUNTRY	Count	First Case	Last Case
2020	AFG	4	4-Jan-20	28-Feb-20
	PAK	41	1-Jan-20	31-Mar-20
<b>2020 Total</b>		<b>45</b>	<b>1-Jan-20</b>	<b>31-Mar-20</b>
2019	AFG	29	4-Jan-19	7-Dec-19
	PAK	147	15-Jan-19	31-Dec-19
<b>2019 Total</b>		<b>176</b>	<b>4-Jan-19</b>	<b>31-Dec-19</b>



**Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2020 - 19/04/2020**

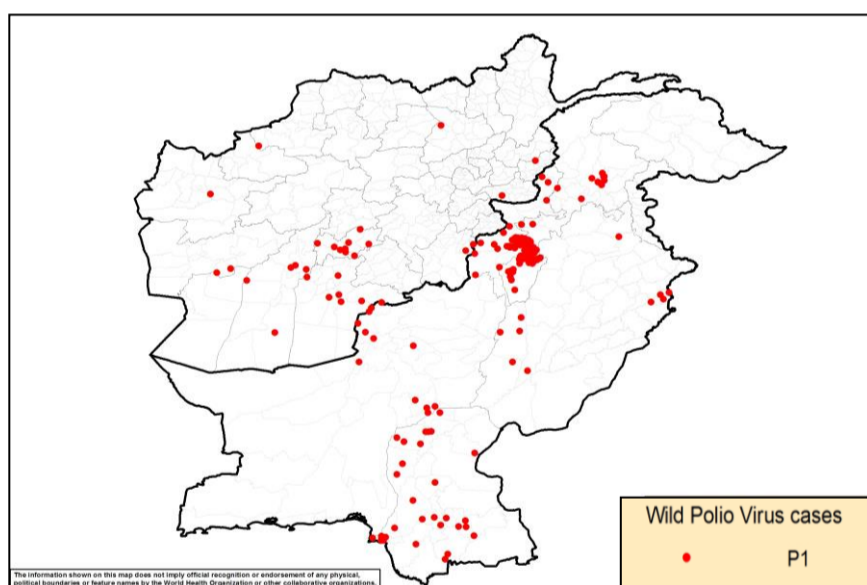


**Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2020 - 19/04/2020**

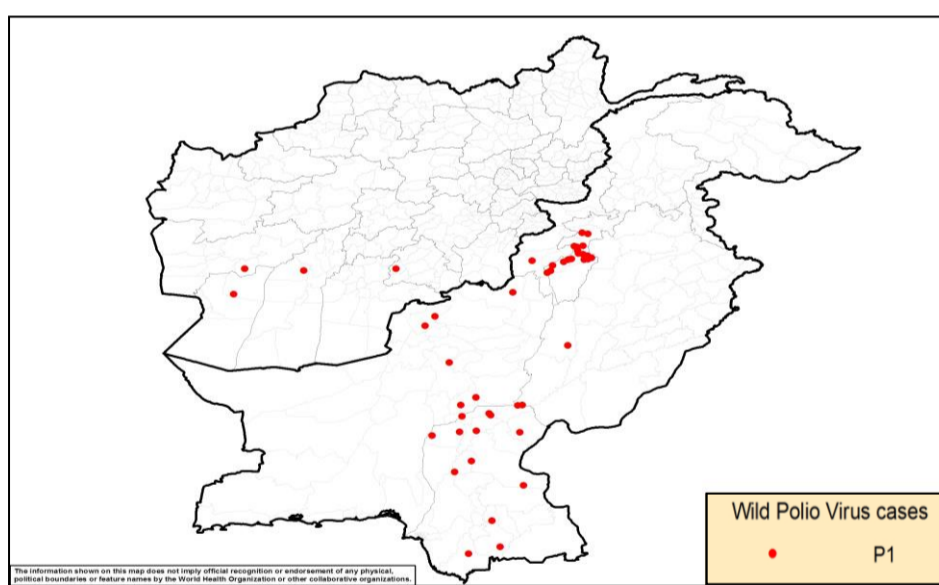


**Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan**

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



**5(b) 01/01/2020 - 19/04/2020**



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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	NIMROZ	KHASHROD	1	28-Feb-20	28-Feb-20	
	FARAH	BAKWA	1	4-Feb-20	4-Feb-20	
	ZABUL	MIZAN	1	21-Jan-20	21-Jan-20	
	HILMAND	WASHER	1	4-Jan-20	4-Jan-20	
<b>2020 Total</b>			<b>4</b>	<b>4-Jan-20</b>	<b>28-Feb-20</b>	
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	GARMSER	1	26-May-19	26-May-19	
		MUSAQALAH	1	5-May-19	5-May-19	
		NAWZAD	1	3-Apr-19	3-Apr-19	
		WASHER	1	23-Mar-19	23-Mar-19	
		SANGIN	1	6-Mar-19	6-Mar-19	
	KUNAR	WATAPUR	1	8-May-19	8-May-19	
	<b>2019 Total</b>			<b>29</b>	<b>4-Jan-19</b>	<b>7-Dec-19</b>

**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	PISHIN	2	31-Jan-20	31-Mar-20	
		ZHOB	1	22-Feb-20	22-Feb-20	
		SOHBATPUR	1	12-Feb-20	12-Feb-20	
		SIBI	1	7-Feb-20	7-Feb-20	
		NSIRABAD	1	3-Jan-20	3-Jan-20	
	SINDH	KHAIRPUR	1	27-Mar-20	27-Mar-20	
		JACOBABAD	3	7-Feb-20	16-Mar-20	
		GHOTKI	1	2-Mar-20	2-Mar-20	
		KAMBAR	2	8-Jan-20	26-Feb-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	
		T.ALLAHYAR	1	7-Jan-20	7-Jan-20	
		SUJAWAL	1	7-Jan-20	7-Jan-20	
		BADIN	1	1-Jan-20	1-Jan-20	
	KHYBER PAKHTUNKHWA	TANK	4	11-Jan-20	15-Mar-20	
		KARAK	2	20-Jan-20	13-Mar-20	
		LAKKIMRWT	12	2-Jan-20	9-Mar-20	
	KP TRIBAL DISTRICTS	WAZIR-S	1	21-Feb-20	21-Feb-20	
	PUNJAB	DGKHAN	1	18-Jan-20	18-Jan-20	
<b>2020 Total</b>			<b>41</b>	<b>1-Jan-20</b>	<b>31-Mar-20</b>	
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	
	SINDH	MUZFARGARH	1	26-Nov-19	26-Nov-19	
		JHELUM	1	21-Jun-19	21-Jun-19	
		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	
	KP TRIBAL DISTRICTS	SUJAWAL	1	25-Sep-19	25-Sep-19	
		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-N	9	4-Apr-19	10-Oct-19	
		WAZIR-S	1	20-Aug-19	20-Aug-19	
		KHYBER	1	14-Feb-19	14-Feb-19	
		BAJOUR	1	18-Jan-19	18-Jan-19	
<b>2019 Total</b>			<b>147</b>	<b>15-Jan-19</b>	<b>31-Dec-19</b>	

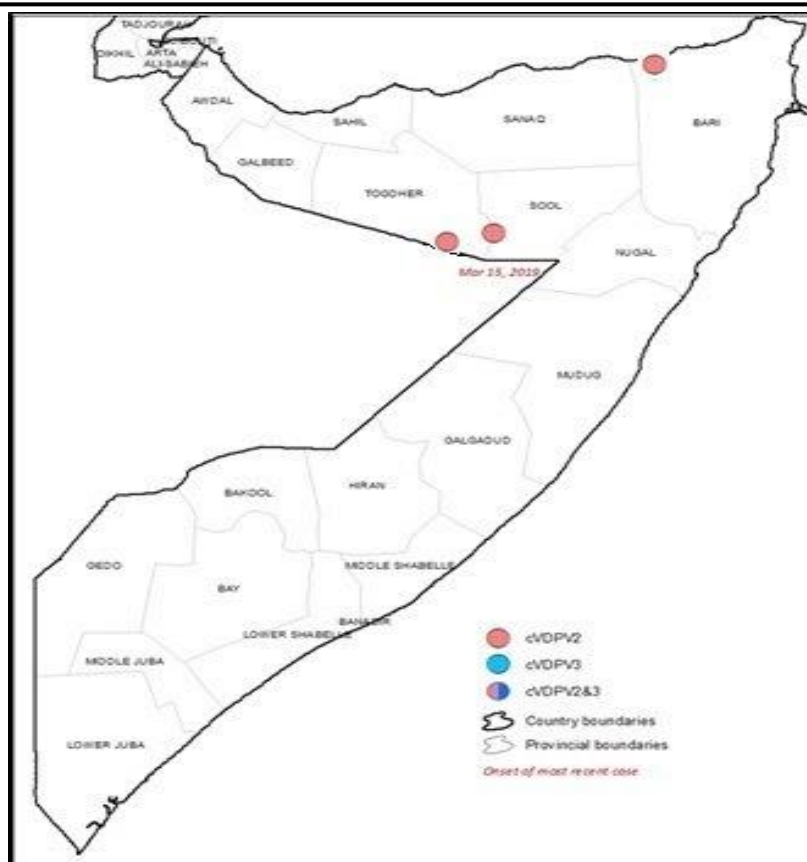
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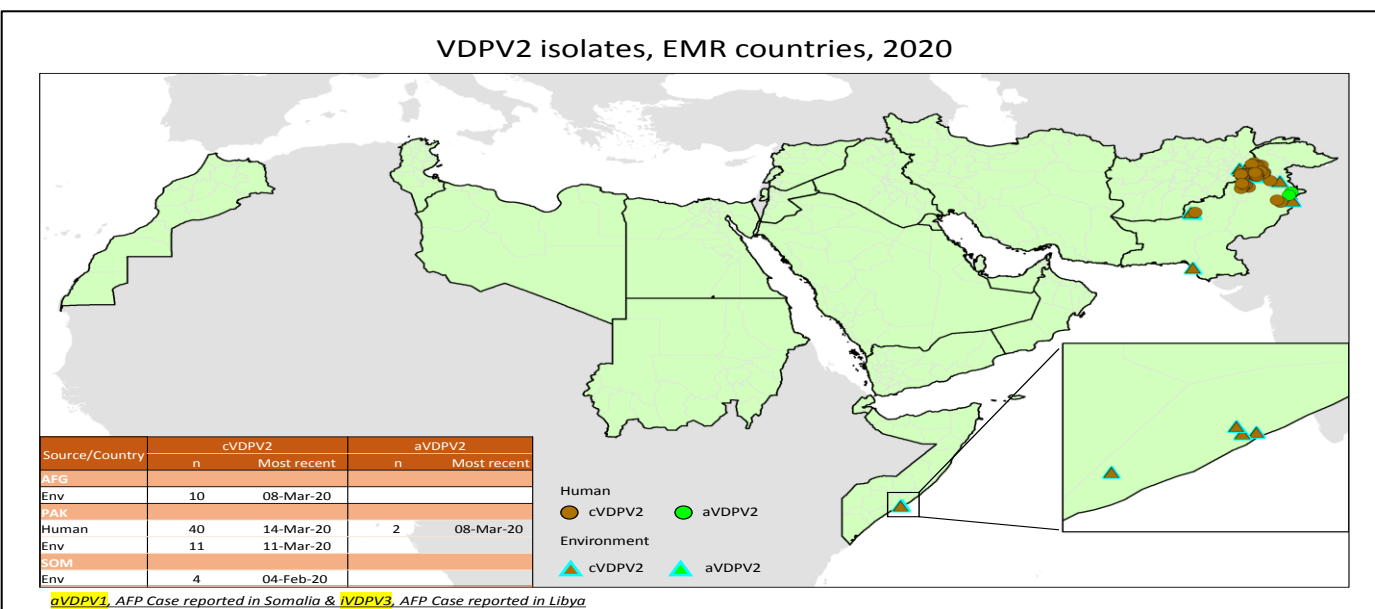
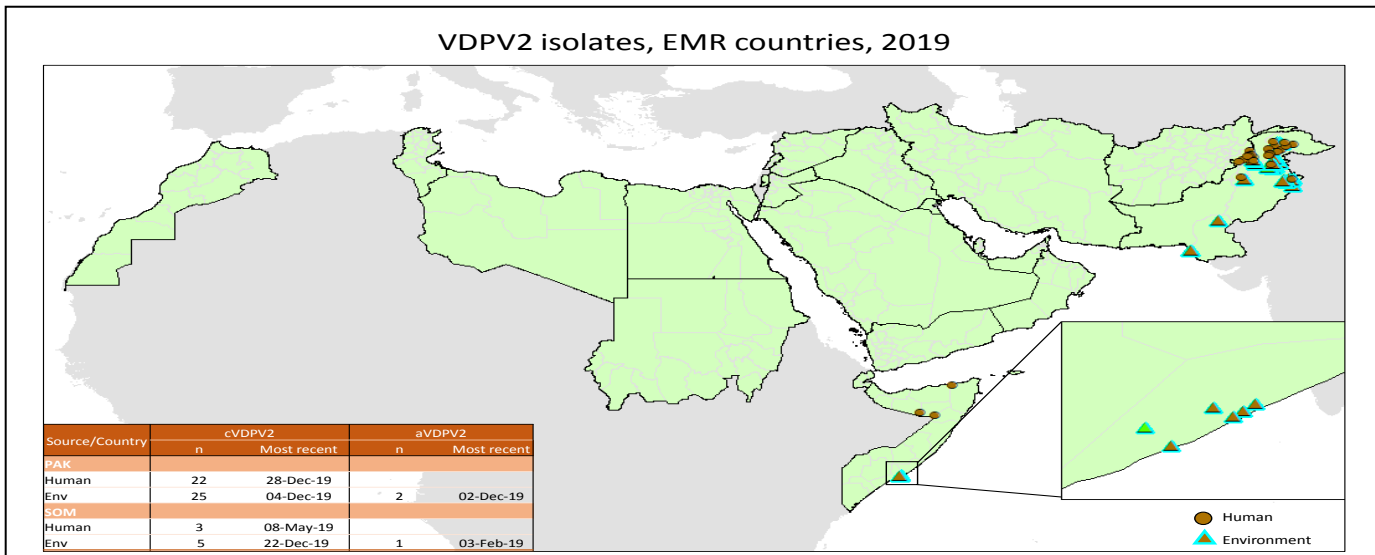
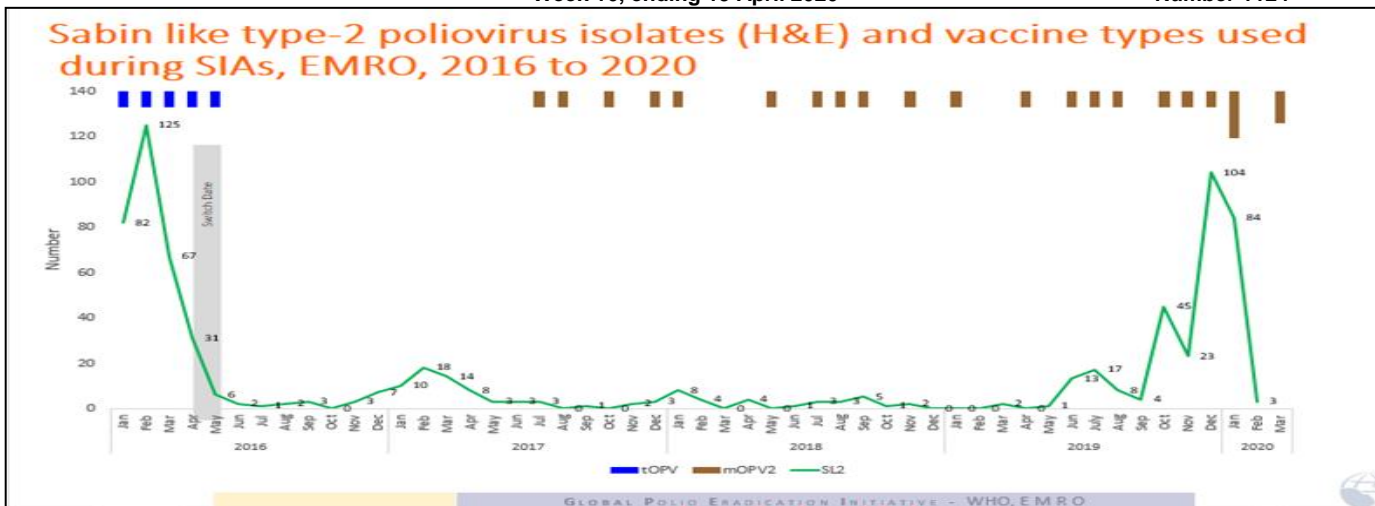
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**Table 11: Circulating VDPV cases and date of onset of paralysis in EMR countries by districts 2019-2020**

COUNTRY	YEAR	PROVINCE	DISTRICT	Count	First Case	Last Case
PAK	2020	BALOCHISTAN	QUETTA	1	29-Feb-20	29-Feb-20
			RAWALPINDI	1	18-Jan-20	18-Jan-20
		PUNJAB	FAISALABAD	2	05-Feb-20	13-Feb-20
			PESHAWAR	4	02-Jan-20	23-Feb-20
		KHYBER PAKHTUNKHWA	BAJOUR	3	03-Jan-20	30-Jan-20
			KHYBER	15	12-Jan-20	01-Mar-20
			NOWSHERA	4	18-Jan-20	01-Mar-20
			LAKKI MARWAT	5	27-Jan-20	26-Feb-20
			MARDAN	1	02-Jan-20	02-Jan-20
			DIR LOWER	2	02-Feb-20	12-Mar-20
			BANNU	2	03-Jan-20	13-Feb-20
<b>Total 2020</b>				<b>40</b>	<b>2-Jan-20</b>	<b>12-Mar-20</b>
PAK	2019	PUNJAB	GUJRANWALA	1	22-Nov-19	22-Nov-19
			KHYBER	3	12-Dec-19	28-Dec-19
		KHYBER PAKHTUNKHWA	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
<b>Total 2019</b>				<b>25</b>	<b>15-Mar-19</b>	<b>28-Dec-19</b>

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





aVDPV1, AFP Case reported in Somalia & iVDPV3, AFP Case reported in Libya