

Highlights of Polio Fax Bulletin No. 1045 for Week 41 2018

IMPORTANT UPDATE: *The second Outbreak Response Assessment (OBRA) mission to Syria concluded that the cVDPV2 transmission has been interrupted, and recommended that the outbreak now be considered closed. POL EMRO will shortly take action on this recommendation.*

I. Poliovirus Transmission

1. Endemic countries (PAKISTAN & AFGHANISTAN):

- a. Human samples: One new wild poliovirus type-1 (WPV1) case was reported this week from Afghanistan. Total WPV1 cases for 2018 to date are 20 cases (16 from Afghanistan and 4 from Pakistan).
 - i. Afghanistan: The new WPV1 case reported this week is from newly infected Nawzad district, Hilmand province with date of onset 1 September 2018. The 48-month old male child received two doses of OPV during supplementary immunization activities. The case is from area inaccessible for vaccination since May 2018. The total number of WPV1 cases in Afghanistan in 2018 to date is 16 from 12 districts in five provinces (Hilmand-2 cases, Kandhar-8 cases, Kunar- 3 cases, Nangarhar-2 cases and Uruzgan-1 case). The most recent reported case has date of onset of paralysis on 1 September 2018.
 - ii. Pakistan: The total number of WPV1 cases in Pakistan in 2018 remains so far four from two infected districts in two provinces (Balochistan-3 cases and Khyber Pakhtunkhwa - 1 case). Date of onset of paralysis of the most recent case is 1 August 2018.
- b. Environmental samples: Seven new positive environmental samples for WPV1 reported this week - five from Afghanistan and two from Pakistan.
 - i. Afghanistan: Five new positive environmental samples reported this week. These include one each from newly infected Matun district, Khost province; Asadabad district, Kunar province; and three from Kandahar district, Kandahar province. This brings the total positive environmental samples from Afghanistan in 2018 to date to 45 with most recent positive sample collected on 25 September 2018.
 - ii. Pakistan: Two new positive environmental samples reported this week. These include one each from Quetta district, Balochistan province; and new infected Saddar town of Karachi in Sindh province. This brings the total positive environmental samples from Pakistan in 2018 to date to 85 with most recent positive sample collected on 24 September 2018.

II. Outbreak response countries

1. SOMALIA:

o cVDPV2:

- a. No new cVDPV2 cases reported this week. The date of onset of the most recent cVDPV2 is 2 September 2018.
- b. No new cVDPV2 positive environmental sample was reported this week. In 2018 so far, cVDPV2 isolated from 13 sewage

samples in Mogadishu and date of specimen collection of recent most positive sample is 6 September 2018. One of the above 13 samples has co-infection of cVDPV2 and cVDPV3.

- cVDPV3:
 - a. One new cVDPV3 case was reported this week from newly infected district Runingod district, Middle Shabelle province with onset 7 September 2018. The case is a 5-month old male child who has not received any doses of oral polio vaccine. The date of onset of the most recent cVDPV3 is 7 September.
 - b. No new cVDPV3 positive environmental sample was reported this week. In 2018 so far, cVDPV3 isolated from 10 sewage samples in Mogadishu and date of specimen collection of recent most positive sample is 23 August 2018. One of the above 10 samples has co-infection of cVDPV2 and cVDPV3.

In 2018, Somalia has reported 12 cVDPV cases so far. They include five cases of cVDPV2 and six cases of cVDPV3, and one case having co-infection with cVDPV2 and cVDPV3.

2. SYRIA:

- Total cases of cVDPV2 in 2017 were 74. Date of onset of the recent most case is 21 September 2017. No isolation of cVDPV2 from environmental samples. More than a year has elapsed without any new case.
- The second Outbreak Response Assessment (OBRA) has concluded that transmission of cVDPV2 has been interrupted and recommended that Pol EMRO close the outbreak response.

III. **Surveillance performance indicators**

1. Nineteen 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 is missing both indicators. Djibouti, did not report any AFP case since April 2017. A POL/EMR mission is currently visiting Djibouti to revitalize surveillance activities therein.
 - Morocco has a percentage of AFP cases with adequate stool specimens of 70.3%
 - Oman has a percentage of AFP cases with adequate stool specimens of 77.3%
2. Yemen has the highest number of 2017 AFP cases, which are not yet finally classified (73). Also Somalia has one pending case from 2017.



World Health Organization – Regional Office for Eastern Mediterranean

AFP SURVEILLANCE

15-Oct-18

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

Country	Reported AFP cases by week of onset - Week (41/18) / Ending on : 14/10/2018														
	Total AFP 2016	Total AFP 2017	Total AFP to date, 2018	W30 29 Jul 18	W31 05 Aug 18	W32 12 Aug 18	W33 19 Aug 18	W34 26 Aug 18	W35 02 Sep 18	W36 09 Sep 18	W37 16 Sep 18	W38 23 Sep 18	W39 30 Sep 18	W40 07 Oct 18	W41 14 Oct 18
Afghanistan	2905	3094	2612	62	73	52	32	49	64	53	77	71	69	62	5
Bahrain	14	18	24	0	0	1	1	0	1	1	0	0	1	0	
Djibouti	3	4	0	0	0	0	0	0	0	0	0				
Egypt	1092	1242	969	18	21	22	11	21	21	20	28	31	18	11	
Iran	776	820	653	20	21	23	11	13	13	24	14	8	13	1	0
Iraq	605	699	735	20	13	13	6	14	12	20	25	20	9	8	1
Jordan ****	107	116	103	1	2	1	0	0	1	4	3	1	2	1	1
Kuwait	50	69	47	0	1	1	0	1	0	0	1	0	0	0	
Lebanon ****	111	75	69	1	2	2	2	2	1	0	2	2	1	0	
Libya	70	88	101	3	6	2	1	5	5	4	3	2	3	0	
Morocco	84	143	145	2	1	2	3	2	1	6	2	6	6	2	
Oman	39	40	22	0	1	0	0	0	1	1	1	1	2	1	0
Pakistan	7848	10319	8788	226	254	245	176	212	235	239	197	250	208	81	4
Palestine ****	46	43	37	0	1	0	3	0	1	1	1	1	0	0	0
Qatar	9	18	9	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	273	276	152	8	4	3	1	2	6	5	3	2	3	0	0
Somalia	316	345	283	12	7	6	3	7	14	10	6	10	6	7	0
Sudan	509	570	462	11	13	6	5	7	15	11	11	18	13	9	
Syria ****	303	362	264	6	11	3	1	5	4	4	7	4	4	4	1
Tunisia	90	67	54	1	1	0	2	2	1	0	0	0	1	0	
U.A.E	42	58	34	1	0	0	1	1	1	0	1	0	0	1	
Yemen	715	713	513	5	19	11	8	9	14	11	7	6	7	4	
Total EMR	16007	19179	16076	397	451	393	267	352	411	414	389	433	366	192	12

□ No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2016	Total year 2017	14/10		Confirmed polio cases by month of onset											
			2017	2018	November 2017	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018
Afghanistan	13	14	9	16	2	2	3	3	1	1	0	2	3	2	1	
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	0	
Lebanon ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Libya	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Morocco	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	20	8	5	4	3	0	0	0	1	1	1	0	0	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		
Somalia	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sudan	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Syria ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
U.A.E	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Yemen	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total EMR	33	22	14	20	5	2	3	3	2	2	1	2	3	3	1	0

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



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Table 3: Investigation of AFP cases with paralysis onset in 2017 & 2018 up to Week (41/18) / Ending on : 14/10/2018

COUNTRY	2017											2018											Latest line List Date		
	AFP									Specimen	Wild cases ****		AFP									Specimen		Wild cases ****	
	Total AFP cases onset 2017	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 2018	Case classification					Annualized Non polio AFP rate **	AFP cases pending classification > 90 days from onset of paralysis			AFP cases pending classification and lab > 90 days from onset of paralysis	% with *** adequate specimens
		Total Confirmed Polio Cases *	Polio Compatible	Pending Classification	Discarded (non polio AFP)	VDPV				Total Confirmed Polio Cases *					Polio Compatible	Pending Classification	Discarded (non polio AFP)	VDPV							
Afghanistan	3094	14	0	0	3080	1	15.2	0	0	93.5	14	0	2612	16	0	221	2375	0	16.3	14	2	94.5	16	0	14-10-2018
Bahrain	18	0	0	0	18	0	6.2	0	0	100.0	0	0	24	0	0	6	18	0	10.5	1	0	95.8	0	0	07-10-2018
Djibouti	4	0	0	0	4	0	1.3	0	0	100.0	0	0	0	0	0	0	0	0.0	0	0				16-09-2018	
Egypt	1242	0	0	0	1240	2	3.3	0	0	94.4	0	0	969	0	0	82	887	0	3.2	7	0	92.1	0	0	11-10-2018
Iran	820	0	0	0	820	0	4.3	0	0	96.7	0	0	653	0	0	26	626	1	4.3	0	0	97.1	0	0	14-10-2018
Iraq	699	0	0	0	699	0	4.7	0	0	86.7	0	0	735	0	0	77	658	0	6.1	10	1	89.3	0	0	13-10-2018
Jordan	116	0	0	0	116	0	4.2	0	0	100.0	0	0	103	0	0	2	101	0	4.6	0	0	99.0	0	0	11-10-2018
Kuwait	69	0	0	0	69	0	7.5	0	0	92.8	0	0	47	0	0	0	47	0	6.7	0	0	89.4	0	0	07-10-2018
Lebanon	75	0	0	0	75	0	4.0	0	0	80.0	0	0	69	0	0	2	67	0	4.7	0	0	98.6	0	0	08-10-2018
Libya	88	0	0	0	88	0	4.3	0	0	96.6	0	0	101	0	0	8	93	0	5.1	1	1	96.0	0	0	13-10-2018
Morocco	143	0	0	0	143	0	1.3	0	0	67.1	0	0	145	0	0	49	96	0	2.0	20	0	70.3	0	0	12-10-2018
Oman	40	0	0	0	40	0	4.5	0	0	90.0	0	0	22	0	0	3	19	0	3.2	0	0	77.3	0	0	14-10-2018
Pakistan	10319	8	2	0	10309	0	13.2	0	0	85.6	8	0	8788	4	1	703	8080	0	14.3	81	0	88.3	4	0	14-10-2018
Palestine	43	0	0	0	43	0	2.3	0	0	97.7	0	0	37	0	0	8	29	0	2.5	0	0	91.9	0	0	14-10-2018
Qatar	18	0	0	0	18	0	6.1	0	0	100.0	0	0	9	0	0	3	6	0	3.2	3	0	100.0	0	0	14-10-2017
Saudi Arabia	276	0	0	0	276	0	3.5	0	0	98.9	0	0	152	0	0	41	111	0	2.4	8	0	95.4	0	0	14-10-2018
Somalia	345	0	0	1	344	0	6.0	1	1	99.1	0	0	283	0	0	22	249	12	5.7	2	2	97.9	0	0	14-10-2018
Sudan	570	0	0	0	570	0	3.2	0	0	96.3	0	0	462	0	0	30	432	0	3.3	2	0	97.6	0	0	13-10-2018
Syria	362	0	1	0	287	44	4.7	0	0	80.9	0	0	264	0	0	15	249	0	4.3	1	0	87.1	0	0	13-10-2018
Tunisia	67	0	0	0	67	0	2.5	0	0	74.6	0	0	54	0	0	8	46	0	2.6	1	1	79.6	0	0	12-10-2018
U.A.E	58	0	0	0	58	0	5.7	0	0	98.3	0	0	34	0	0	5	29	0	3.5	0	0	97.1	0	0	13-10-2018
Yemen	713	0	0	73	640	0	5.2	73	58	90.2	0	0	513	0	0	445	68	0	4.6	339	318	93.6	0	0	13-10-2018
EMR	19179	22	3	74	19004	47	7.7	74	59	88.9	22	0	16076	20	1	1756	14286	13	8.2	490	325	90.6	20	0	
2016	16008	33	5	1	15961	8	6.4	0	0	89.6	33	0													

* Confirmed polio cases refer to wild isolation from AFP cases or from contacts of negative index AFP cases

** Non-polio AFP per 100,000 children <15 years

*** Adequate here refers to two stool specimens collected at least 24 hours apart, within 14 days of paralysis onset and specimens received in the lab in Good Condition

**** AFP cases co infected with P1 and P3 are counted separately as wild isolates



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Table 4 (a): Lab results of contacts' samples in EMR, 2017 - 2018

COUNTRY	2017						2018					
	# OF CONTACTS	LAB RESULTS					# OF CONTACTS	LAB RESULTS				
		WILD	VDPV	SL	NPEV	PENDING		WILD	VDPV	SL	NPEV	PENDING
AFG	1424	1	0	88	347	0	729	4	0	39	150	30
BAH	2	0	0	0	0	0	2	0	0	0	0	0
DJI	0	0	0	0	0	0	0	0	0	0	0	0
EGY	450	0	0	9	63	18	370	0	0	10	45	24
IRN	143	0	0	5	1	0	112	0	0	2	4	0
IRQ	698	0	0	18	101	16	604	0	0	17	72	57
JOR	2	0	0	0	0	0	0	0	0	0	0	0
KUW	8	0	0	0	0	2	0	0	0	0	0	0
LEB	92	0	0	2	3	21	203	0	0	3	15	23
LIB	4	0	0	0	0	1	0	0	0	0	0	0
MOR	87	0	0	0	7	0	75	0	0	0	8	9
OMA	115	0	0	1	24	1	51	0	0	1	10	0
PAK	3758	2	0	234	897	0	3183	1	0	135	686	173
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	0	0	0	0	0	0	5	0	0	0	0	5
SOM	1035	0	0	37	113	4	839	0	10	32	87	104
SUD	385	0	0	6	32	46	291	0	0	2	22	90
SYR	570	0	63	3	11	0	506	0		3	9	21
TUN	26	0	0	0	0	0	13	0	0	0	0	1
UAE	2	0	0	0	0	0	0	0	0	0	0	0
YEM	1737	0	0	43	114	667	1082	0	0	0	0	1082
EMR	10538	3	63	446	1713	776	8065	5	10	244	1108	1619

Table 4 (B): Most recent wild contacts in EMRO, 2017 - 2018

Year	Country	Data	
		Count of wild contacts	Date of Most Recent stool collection
2018	Afghanistan	4	07-08-18
	Pakistan	1	08-05-18
2018 Total		5	07-08-18
2017	Pakistan	2	04-12-17
	Afghanistan	1	21-05-17
2017 Total		3	04-12-17

Table 4 (C): Number and distribution by district of -ve index AFP cases identified as wild positive by contact in EMR, 2017-2018

YEAR	COUNTRY	PROVINCE	DISTRICT	COUNT	First case	Last case
2018	AFG	NANGARHAR	PACHIERAGAM	1	17-07-18	17-07-18
		URUZGAN	SHAHID-E-HASSA	1	08-07-18	08-07-18
	PAK	BALUCHISTAN	DUKKI	1	15-04-18	15-04-18
2018 Total				3	15-04-18	17-07-18
2017	AFG	HILMAND	NAWZAD	1	16-04-17	16-04-17
	2017 Total				1	16-04-17



Table 5: Laboratory investigation of AFP cases with paralysis onset in 2018 up to Week (41/18) / Ending on : (14/10/2018)

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	2536	181	20	464	1762	110		14	139						124						17%	89%	100%	98%	14/10/2018
Bahrain	NPL Oman / CDC	23			1	22																4%	100%		48%	15/10/2018
Djibouti	NPL Kenya / CDC																									16/09/2018
Egypt***	RRL Egypt	952	26	6	128	745	37	10		14					16			6				12%	94%	100%	99%	11/10/2018
Iran	NPL Iran / CDC	669	13		17	612	24	3		7	1				5		1					2%	100%	100%	99%	13/10/2018
Iraq	RRL Egypt	736	17		86	589	32	12		11					12							13%	100%	100%	76%	11/10/2018
Jordan	NPL Jordan / RRL EGYPT	101	4		5	91	1			3					4							8%	100%	100%	100%	11/10/2018
Kuwait	RRL Kuwait / RIVM	48	1		4	41	1	1											1			6%	96%		98%	11/10/2018
Lebanon	NPL Jordan / RRL EGYPT	75	2		4	66	2	1		2					2							8%	100%	100%	50%	11/10/2018
Libya	RRL Tunisia / RIVM	99	1		10	81	4	3							1							10%	100%	100%	98%	06/10/2018
Morocco	NPL Morocco / RRL Tunisia	119			2	109		8														3%	92%		94%	05/10/2018
Oman	NPL Oman / CDC	21			2	18	1															17%	90%		100%	15/10/2018
Pakistan	RRL Pakistan	8585	333	32	1802	5954	457	7	3	218					255		9		1			19%	90%	99%	97%	14/10/2018
Palestine & UNRWA		37			6	29	1	1														17%	60%		100%	14/10/2018
Qatar	NPL Oman / CDC	9			1	8																11%	88%		100%	15/10/2018
Saudi Arabia	NPL Saudi Arabia / CDC	152	2		2	143	1	4							2							1%	99%	50%	100%	07/10/2018
Somalia	NPL Kenya / CDC	283	27	1	24	210	11	10		9			4	6 #	9	7 #			1			10%	14%		100%	07/10/2018
Sudan	NPL Sudan / RRL Egypt	465	5		42	394	24			4					1			1				11%	95%	100%	83%	14/09/2018
Syria	NPL Syria / RRL Egypt	262	3		8	243	8			1					2							3%	100%	100%	50%	11/10/2018
Tunisia	RRL Tunisia	60			2	57	1															2%	98%		97%	06/10/2018
U.A.E	NPL Oman / CDC	31			4	25	2															12%	86%		90%	15/10/2018
Yemen	NPL Kenya / CDC																									13/10/2018
Total EMR 2018		15263	615	59	2614	11199	717	60	17	408	1		4	6	433	7	1	16		3		15%	90%	99%	97%	
Total EMR 2017		13527	558	50	2219	10038	608	55	15	369	1		4	4	394	3	1	12		1		15%	89%	99%	97%	

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

* In 2017, 41 cVDPV2 were isolated from Syria by other Global Polio Laboratories Network (GPLN) Syria reported a total of 74 cVDPV2 cases in 2017 out of which 8 were identified by positive contacts

Somalia in 2018 so far has a total of 12 cVDPV cases (5 cVDPV2, 6 cVDPV3 & 1 coinfection cVDPV2/cVDPV3)

** This indicator reflects surveillance and laboratory activities



Table 6: Environmental isolate by year and type

Country	Status	2015	2016	2017	2018
AFG	NEGATIVE	129	183	274	192
	PENDING				23
	WILD	20	2	42	45
AFG Total		149	185	316	260
EGY	NEGATIVE	495	528	522	392
	PENDING				29
	VDPV2	3	1		
EGY Total		498	529	522	421
IRN	NEGATIVE			6	38
IRN Total				6	38
JOR	NEGATIVE		2	32	15
	PENDING				13
JOR Total			2	32	28
LEB	NEGATIVE		4	27	10
	PENDING				23
LEB Total			4	27	33
PAK	NEGATIVE	347	462	523	404
	PENDING				36
	WILD	79	59	105	85
	WILD & VDPV2	5	3	1	
	VDPV2	8	5	4	
PAK Total		439	529	633	525
SOM	NEGATIVE			34	126
	PENDING				20
	VDPV2			2	13
	VDPV3				10
SOM Total			36	169	
SYR	NEGATIVE			4	64
	PENDING				6
SYR Total			4	70	
Grand Total		1086	1249	1576	1544

Table 7: Environmental Wild/VDPV isolate by site

Country	COUNTRY	Status	PROVINCE	DISTRICT	Count	First date	Last date			
2017	AFG	WILD	HILMAND	LASHKARGAH	8	26-Apr	26-Dec			
				NAHR-E-SARAJ	1	25-Sep	25-Sep			
				KABUL	1	25-Oct	25-Oct			
				KANDAHAR	18	26-Jan	27-Dec			
				ASADABAD	1	25-Dec	25-Dec			
			NANGARHAR	BEHSUD	3	24-Sep	26-Dec			
				JALALABAD	10	24-Jan	26-Dec			
			AFG Total				42	24-Jan	27-Dec	
			PAK	WILD	BALOCHISTAN	KABDULLAH	12	1-Jan	15-Oct	
						LORALAI	3	17-Sep	17-Nov	
	PISHIN	5				2-Jan	2-Oct			
	QUETTA	12				1-Jan	20-Dec			
	ZHOB	1				18-Dec	18-Dec			
	ISLAMABAD	CDA				5	10-Feb	10-Jul		
		KHYBER PAKHTUNKHWA				PESHAWAR	8	10-Jan	11-Dec	
	PUNJAB	LAHORE				1	18-Dec	18-Dec		
		MULTAN				1	9-Jan	9-Jan		
	SINDH	RAWALPINDI				8	10-Jan	10-Oct		
		JACOBABAD				4	11-Aug	13-Dec		
		KAMBAR				1	15-Aug	15-Aug		
		KHIBALDIA				2	8-Aug	3-Nov		
		KHIGADAP	21	9-Jan	12-Dec					
		KHIGIQBAL	6	3-Feb	10-Oct					
KHIKORANGI		1	16-Oct	16-Oct						
WILD & VDPV2	BALOCHISTAN	BALOCHISTAN	KHILANDHI	7	16-Mar	14-Dec				
			KHISITE	5	7-Aug	4-Dec				
			SUKKUR	2	11-Apr	19-Sep				
			KABDULLAH	1	15-Jul	15-Jul				
VDPV2	BALOCHISTAN	BALOCHISTAN	PISHIN	1	2-May	2-May				
			QUETTA	3	3-Apr	29-May				
PAK Total					110	1-Jan	20-Dec			
SOM	VDPV2	BANADIR	WABERI	2	22-Oct	2-Nov				
SOM Total				2	22-Oct	2-Nov				
2017 Total					154	1-Jan	27-Dec			
2018	AFG	WILD	HILMAND	LASHKARGAH	1	8-Jan	8-Jan			
				HERAT	1	25-Jun	25-Jun			
				KABUL	3	26-Feb	26-Jun			
				KANDAHAR	24	8-Jan	25-Sep			
				KHOST	1	25-Sep	25-Sep			
				KUNAR	2	24-Apr	25-Sep			
				BEHSUD	2	28-Jan	25-Feb			
				JALALABAD	11	27-Jan	25-Jul			
				AFG Total				45	8-Jan	25-Sep
				PAK	WILD	BALOCHISTAN	KABDULLAH	3	1-Jan	17-Sep
							LORALAI	2	17-Mar	17-Aug
	QUETTA	7	13-Feb				20-Sep			
	ISLAMABAD	CDA	5				10-Jan	10-Sep		
		KHYBER PAKHTUNKHWA	BANNU				1	31-Mar	31-Mar	
	KOHAT	KOHAT	4				5-Jan	27-Aug		
		PESHAWAR	14				10-Jan	24-Sep		
	PUNJAB	DERA GHAZI KHAN	2				12-Feb	12-Sep		
		LAHORE	5				11-Jun	12-Sep		
		RAWALPINDI	9				10-Jan	10-Sep		
	SINDH	HYDERABAD	1				9-Feb	9-Feb		
		JACOBABAD	3				12-Feb	12-Sep		
		KAMBAR	3				7-Apr	9-Jul		
		KHIBALDIA	2				1-Aug	4-Sep		
		KHIGADAP	11				15-Feb	11-Sep		
		KHIGIQBAL	1				13-Sep	13-Sep		
		KHILANDHI	3				10-Jan	30-Jul		
		KHISITE	2				1-Jan	3-Sep		
		SUKKUR	1				8-Feb	8-Feb		
		KHILIAQAT	1				7-Mar	7-Mar		
	KHISADDAR	KHISADDAR	1				10-Sep	10-Sep		
		BAJOUR	4				19-May	24-Sep		
	PAK Total				85	1-Jan	24-Sep			
	SOM	VDPV2	BANADIR	HAMAR WEYN	8	4-Jan	6-Sep			
HODAN				1	22-Feb	22-Feb				
WABERI				4	1-Mar	2-Aug				
HAMAR WEYN				5	8-Mar	5-Apr				
WABERI				5	8-Mar	23-Aug				
SOM Total				23	4-Jan	6-Sep				
2018 Total					153	1-Jan	25-Sep			



Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2018 - 14/10/2018

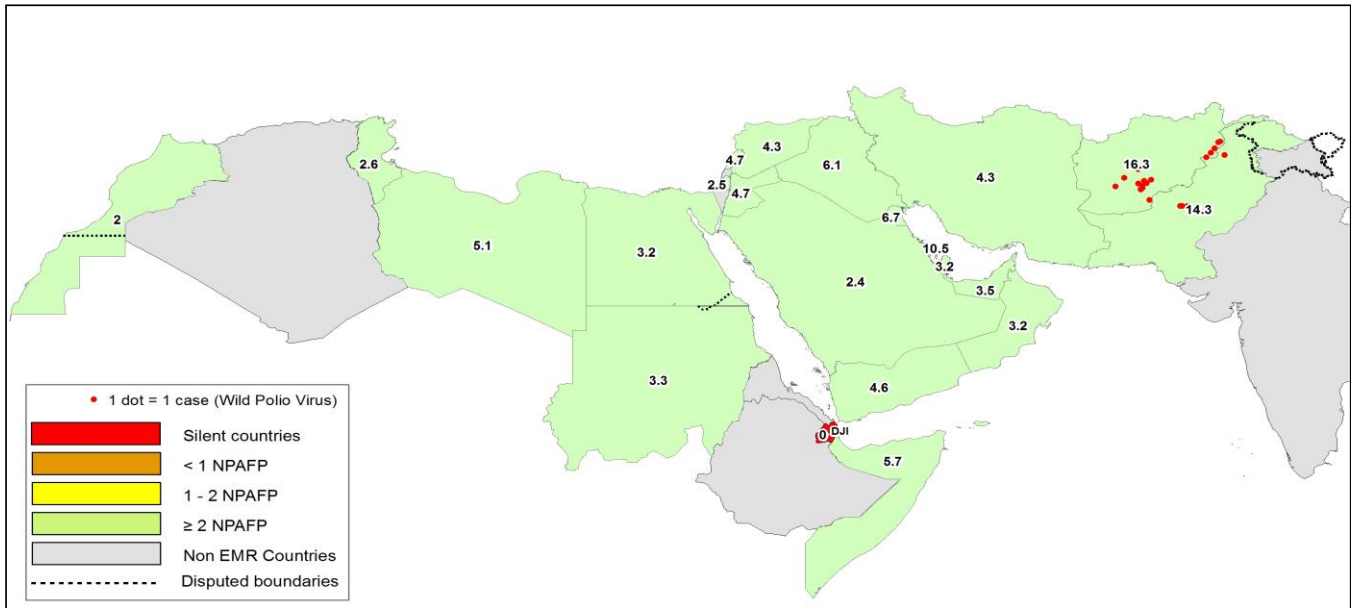


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2018 - 14/10/2018

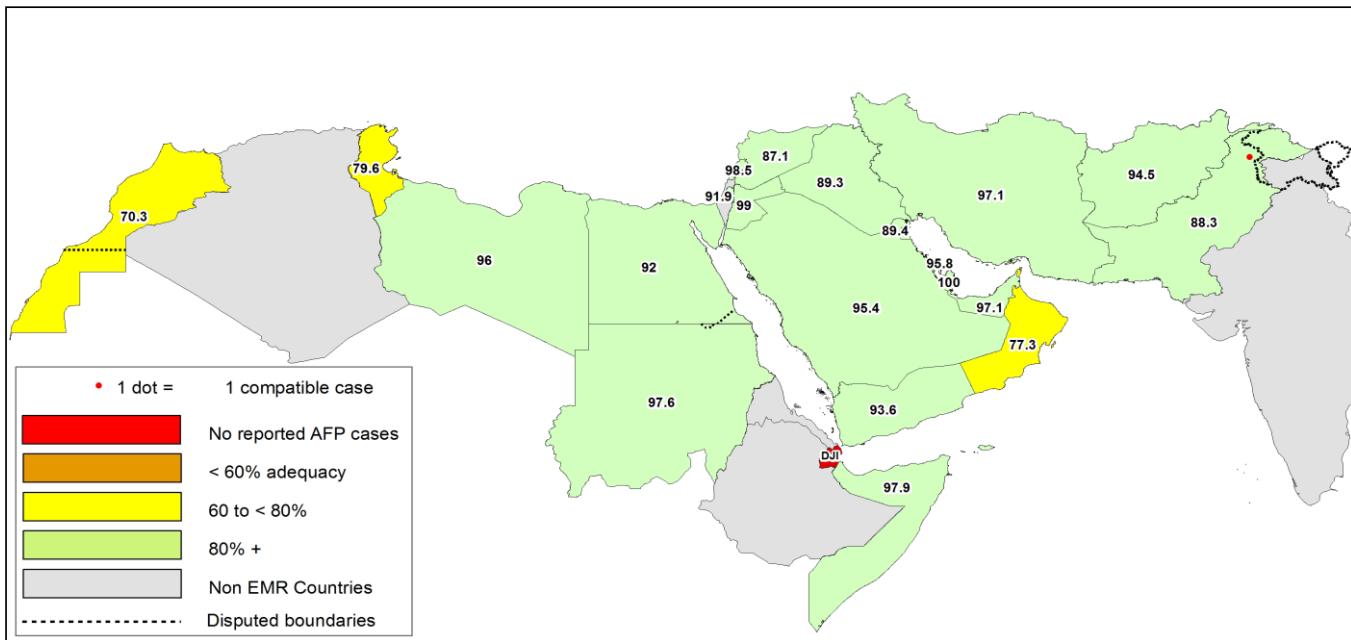


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2017 - 2018

Year	COUNTRY	Count	First Case	Last Case
2018	AFG	16	01-01-18	01-09-18
	PAK	4	08-03-18	01-08-18
2018 Total		20	01-01-18	01-09-18
2017	AFG	14	13-01-17	28-12-17
	PAK	8	28-01-17	15-11-17
2017 Total		22	13-01-17	28-12-17

Last reported wild Polio P3 from Pakistan with date of onset 18/04/2012



Figure 3: Non Polio AFP rate by Province in Afghanistan & by District in Pakistan 01/01/2018 - 14/10/2018

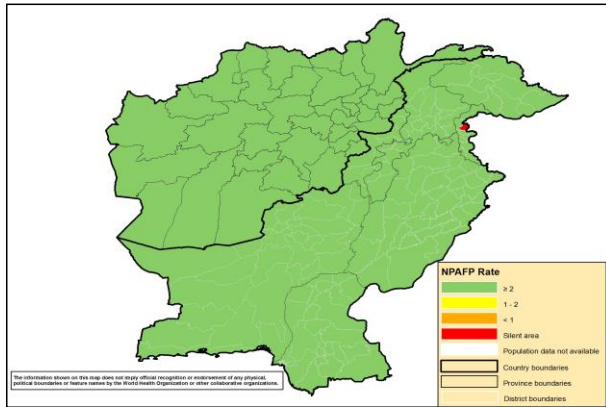


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2018 - 14/10/2018

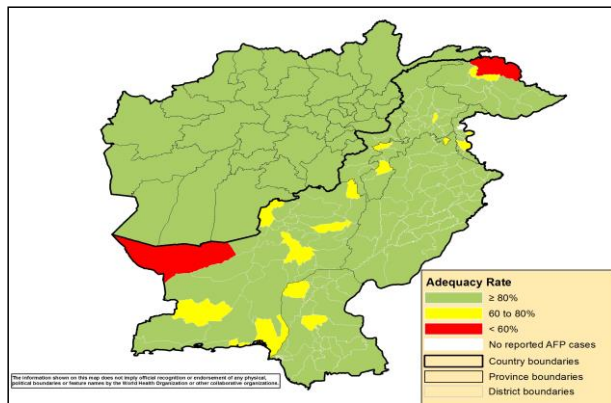
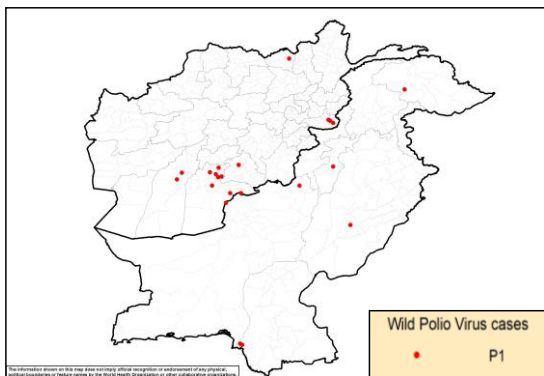
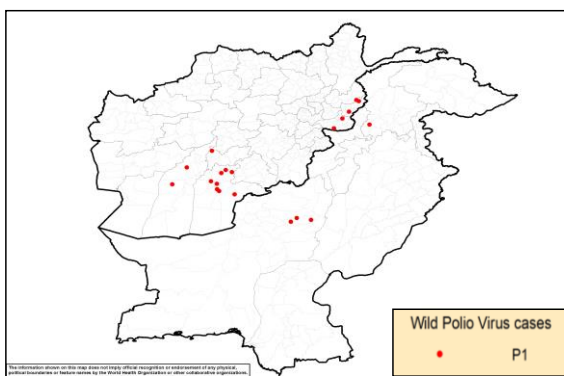


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

5a: 01/01/2017 - 31/12/2017



5b: 01/01/2018 - 14/10/2018





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Table 9: Wild Polio cases by district and date of onset of paralysis, Afghanistan 2017-2018

ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2018	HILMAND	NAWZAD	1	01-09-18	01-09-18
		NAD-E-ALI	1	01-06-18	01-06-18
	KANDAHAR	KANDAHAR	2	11-08-18	27-08-18
		ARGHANDAB (K)	1	17-07-18	17-07-18
		SHAHWALIKOT	3	05-01-18	27-04-18
		KHAKREZ	1	25-02-18	25-02-18
		SPINBOLDAK	1	06-01-18	06-01-18
	NANGARHAR	PACHIERAGAM	1	17-07-18	17-07-18
		KAMA	1	01-01-18	01-01-18
	URUZGAN	SHAHID-E-HASSAS	1	08-07-18	08-07-18
	KUNAR	CHAWKAY	1	22-06-18	22-06-18
		GHAZIABAD	2	14-02-18	03-03-18
	2018 Total			16	01-01-18
2017	KANDAHAR	SPINBOLDAK	1	28-12-17	28-12-17
		SHAHWALIKOT	5	19-06-17	03-12-17
		KANDAHAR	1	13-01-17	13-01-17
	NANGARHAR	MUHMAND DARA	1	05-11-17	05-11-17
		BATIKOT	2	15-09-17	11-10-17
	ZABUL	ARGHANDAB (Z)	1	10-07-17	10-07-17
	HILMAND	NAWZAD	1	16-04-17	16-04-17
		NAHR-E-SARAJ	1	21-01-17	21-01-17
	KUNDUZ	DASHT-E-ARCHI	1	21-02-17	21-02-17
2017 Total			14	13-01-17	28-12-17

Table 10: Wild Polio cases by district and date of onset of paralysis, Pakistan 2017-2018

ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2018	KHYBER PAKHTOON	CHARSADA	1	01-08-18	01-08-18
	BALUCHISTAN	DUKKI	3	08-03-18	18-05-18
2018 Total			4	08-03-18	01-08-18
2017	BALUCHISTAN	ZHOB	1	15-11-17	15-11-17
		KABDULAH	2	11-06-17	13-11-17
	SINDH	KHIGADAP	1	09-11-17	09-11-17
		KHIGIQBAL	1	11-08-17	11-08-17
	KHYBER PAKHTOON	LAKKIMRWT	1	21-08-17	21-08-17
	GILGIT BALTISTAN	DIAMER	1	13-02-17	13-02-17
PUNJAB	LODHRAN	1	28-01-17	28-01-17	
2017 Total			8	28-01-17	15-11-17

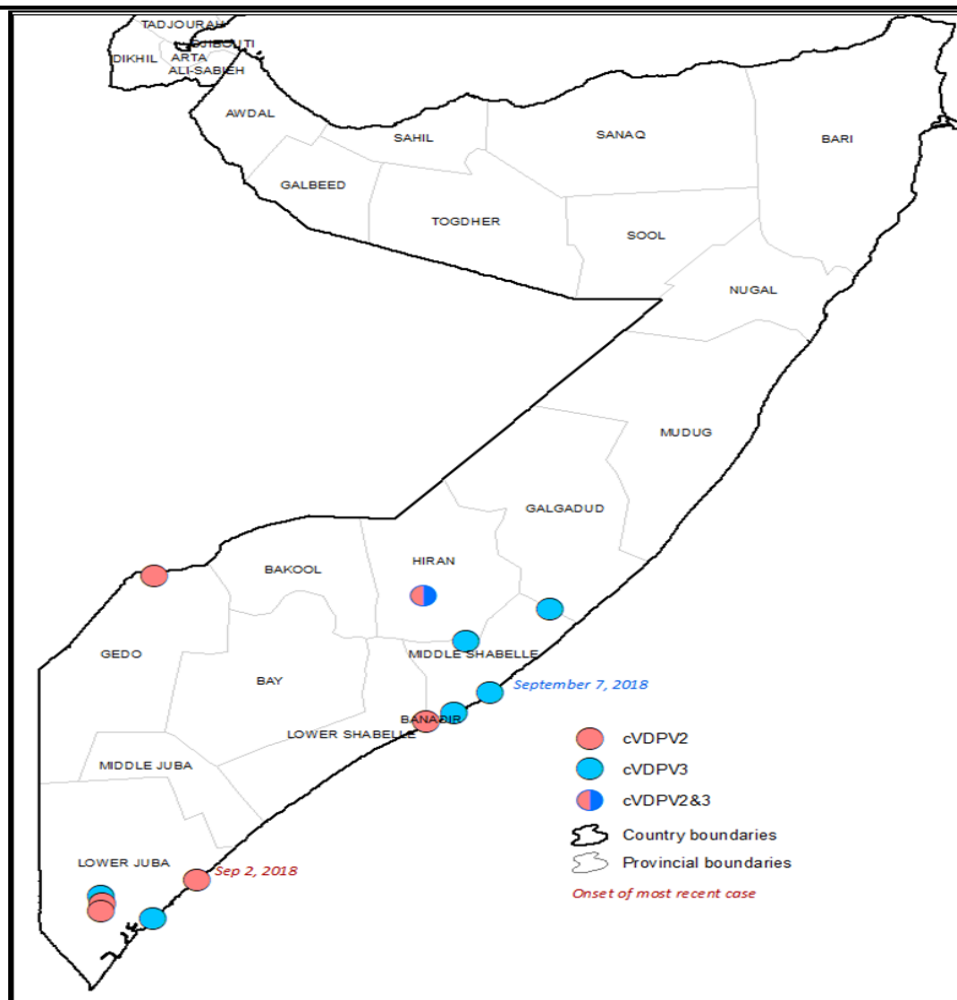


Table 11: Circulating VDPV cases and date of onset of paralysis in EMR countries by districts 2017-2018

Year	COUNTRY	PROVINCE	DISTRICT	cVDPV2			cVDPV3			
				Count	First Case	Last Case	Count	First Case	Last Case	
2017	SYR	HOMS	TADMOUR	1	10-Jul-17	10-Jul-17				
		DEIR_AL_ZOUR	DEIR ALZOUR	1	30-Jun-17	30-Jun-17				
		DEIR_AL_ZOUR	BOKAMAL	12	25-Jun-17	21-Sep-17				
		DEIR_AL_ZOUR	MAYADEEN	58	5-Mar-17	9-Sep-17				
		RAQUA	THAWRA	1	16-Jun-17	16-Jun-17				
		RAQUA	TALABYAD	1	25-Apr-17	25-Apr-17				
SYR Total				74	5-Mar-17	21-Sep-17				
2017 Total				74	5-Mar-17	21-Sep-17				
2018	SOM	LOWER JUBA	Jamaame West KISMAYO	1	02-Sep-18	02-Sep-18				
		MIDDLE SHABELLE	RUNINGOD		2	29-Jul-18	30-Jul-18	2	24-Jul-18	27-Jul-18
			MAHADAY					1	07-Sep-18	07-Sep-18
			WARSHEIKH					1	29-Jun-18	29-Jun-18
		BANADIR	DANYILE	1	10-Jul-18	10-Jul-18				
		HIRAN	BULO BURTI	1	11-May-18	11-May-18	1	11-May-18	11-May-18	
GEDO	DOLO	1	26-May-18	26-May-18						
SOM Total				6	11-May-18	2-Sep-18	7	11-May-18	7-Sep-18	
2018 Total				6	11-May-18	2-Sep-18	7	11-May-18	7-Sep-18	

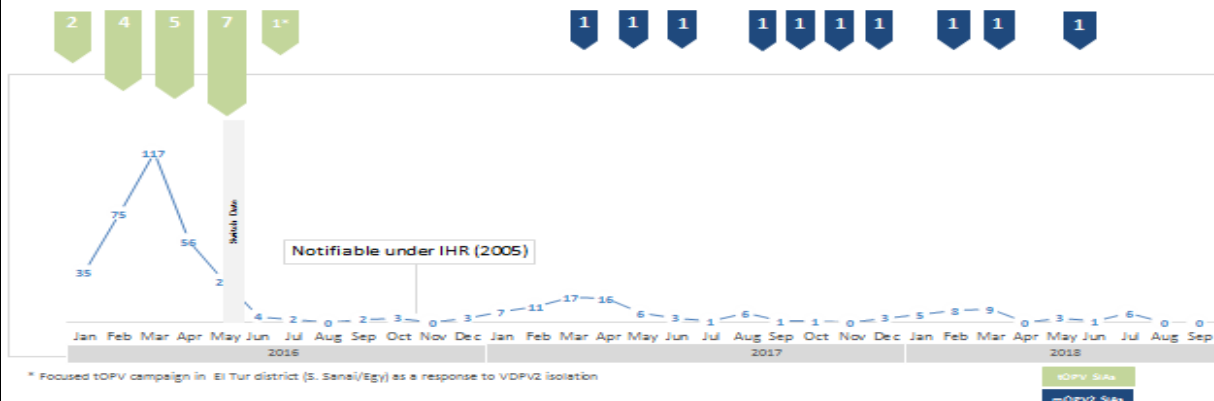
Somalia in 2018 so far has a total of 12 cVDPV cases (5 cVDPV2, 6 cVDPV3 & 1 coinfection cVDPV2/cVDPV3)

Figure 6: Somalia cVDPV cases by type and district 01/01/2018 - 14/10/2018

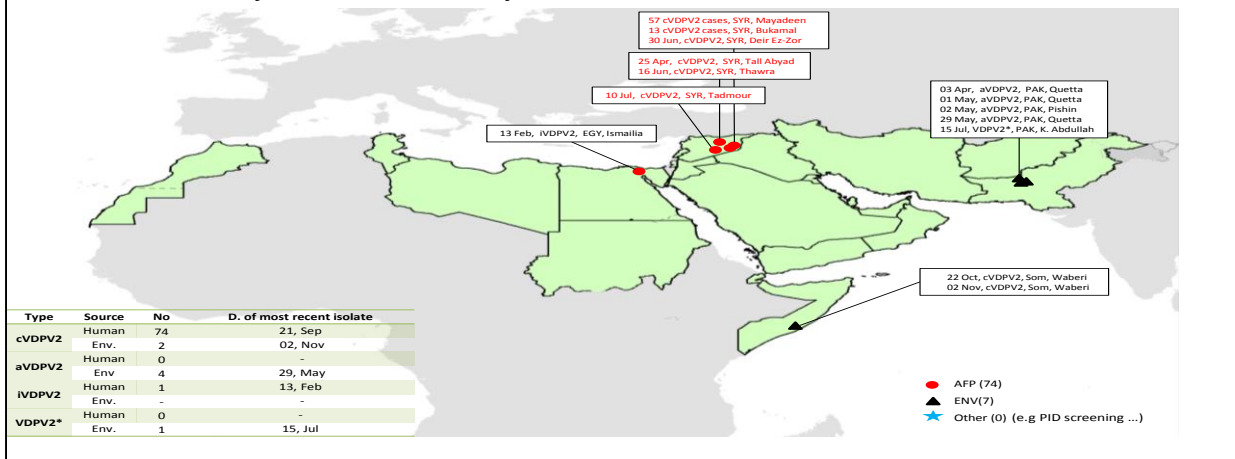




Sabin Like Type-2 Poliovirus Isolates (H & E) EMR, 2016-17-18



VDPV2 isolates, EMR countries, 2017



VDPV2 isolates, EMR countries, 2018

