

Highlights of Polio Fax Bulletin No. 1048 for Week 44 2018

I. Poliovirus Transmission

1. Endemic countries (PAKISTAN & AFGHANISTAN):
 - a. Human samples: Two new wild poliovirus type-1 (WPV1) cases were reported this week from Pakistan. Total WPV1 cases for 2018 to date are 27 cases (19 from Afghanistan and 8 from Pakistan).
 - i. Afghanistan: The total number of WPV1 cases in Afghanistan in 2018 to date is 19 from six provinces (Hilmand-3 cases, Kandhar-9 cases, Kunar-3 cases, Nangarhar-2 cases, Uruzgan-1 case and Nuristan-1 case). The most recent reported case has date of onset of paralysis on 2 October 2018.
 - ii. Pakistan: Two new WPV1 cases reported from Pakistan this week, both from Bajour district, Khyber Pakhtunkhwa Tribal District (FATA) province. New cases include an 84-month old male child with date of onset of paralysis 1 September 2018. The child reportedly received 10 doses of OPV 3 doses from routine and 7 during supplementary immunization activities (SIAs) noting that this case was identified as wild by 2 positive contacts. The second WPV1 case is with date of onset of paralysis 7 October 2018. The 66-month old female child received reportedly 10 doses of OPV including 3 doses from routine and 4 during SIAs. The total number of WPV1 cases in Pakistan in 2018 to date is currently eight. Cases are from five infected districts in four provinces (Balochistan-3 cases, Khyber Pakhtunkhwa-1 case, Khyber Pakhtunkhwa Tribal District-3 case and Sindh-1 case). Date of onset of paralysis of the most recent case is 7 October 2018.
 - b. Environmental samples: No new positive environmental samples for WPV1 reported this week.
 - i. Afghanistan: The total positive environmental samples from Afghanistan in 2018 remains to date 50 with most recent positive sample collected on 3 October 2018.
 - ii. Pakistan: The total positive environmental samples from Pakistan in 2018 remains to date 96 with most recent positive sample collected on 11 October 2018.

II. Outbreak response countries

1. SOMALIA

○ 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, VDPV2 has been isolated from 17 sewage samples in Mogadishu and date of specimen collection of recent most positive sample is 20 September 2018. One of the above 17 samples has co-infection of cVDPV2 and cVDPV3.

- cVDPV3:
 - a. No new cVDPV3 case was reported this week. 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, six cases of cVDPV3, and one case having co-infection with cVDPV2 and cVDPV3.

III. Other countries

1. EGYPT

- i. An advance notification of a newly reported VDPV1 from Dakahlia province, Talkha district, onset 7 October 2018.

IV. 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.
 - Morocco has a percentage of AFP cases with adequate stool specimens of 68.5%
 - Oman has a percentage of AFP cases with adequate stool specimens of 76.0%
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

5-Nov-18

Week 44, ending 4 November 2018

Number 1048

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

Country	Reported AFP cases by week of onset - Week (44/18) / Ending on : 04/11/2018														
	Total AFP 2016	Total AFP 2017	Total AFP to date, 2018	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	W42 21 Oct 18	W43 28 Oct 18	W44 04 Nov 18
Afghanistan	2905	3094	2786	32	50	65	53	80	72	73	81	47	57	45	2
Bahrain	14	18	26	1	0	1	1	0	0	1	0	0	2	0	
Djibouti	3	4	0	0	0	0	0	0	0						
Egypt	1092	1242	1056	11	21	21	20	28	31	19	28	32	17	20	
Iran	776	820	684	11	13	13	25	14	13	20	14	5	0		
Iraq	605	699	768	6	14	13	20	25	20	9	17	16	8		
Jordan ****	107	116	106	0	0	1	4	3	1	2	1	3	1	0	
Kuwait	50	69	54	0	1	0	0	1	0	0	2	1	1	3	0
Lebanon ****	111	75	74	2	2	1	0	2	3	1	0	2	1	1	
Libya	70	88	108	1	5	5	4	3	2	4	1	1	2	2	
Morocco	84	143	162	4	2	2	7	2	6	7	4	4	6	1	
Oman	39	40	25	0	0	1	1	1	1	3	1	1	1	0	0
Pakistan	7848	10319	9452	179	220	248	248	204	265	229	189	244	186	37	0
Palestine ****	46	43	40	3	0	1	1	1	1	0	1	1	1	0	0
Qatar	9	18	9	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	273	276	165	1	2	6	5	3	2	5	2	3	4	2	0
Somalia	316	345	295	3	7	14	10	6	10	7	10	3	4	1	0
Sudan	509	570	486	5	7	15	11	11	20	15	12	7	7	3	0
Syria ****	303	362	291	1	5	4	4	9	4	4	7	12	6	4	1
Tunisia	90	67	58	2	2	1	0	0	0	1	2	0	0	0	
U.A.E	42	58	35	1	1	1	0	1	0	0	1	1	0	0	0
Yemen	715	713	553	8	9	14	12	8	7	10	11	12	12	3	
Total EMR	16007	19179	17233	271	361	427	426	402	458	410	384	395	316	122	3

 No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2016	Total year 2017	04/11		Confirmed polio cases by month of onset											
			2017	2018	December 2017	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018
Afghanistan	13	14	10	19	2	3	3	1	1	0	2	3	2	3	1	
Bahrain	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			
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0			
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Jordan ****	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Lebanon ****	0	0	0	0	0	0	0	0	0	0	0	0	0			
Libya	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			
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	20	8	5	8	0	0	0	1	1	1	0	0	1	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		
Somalia	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			
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					
U.A.E	0	0	0	0	0	0	0	0	0	0	0	0				
Yemen	0	0	0	0												
Total EMR	33	22	15	27	2	3	3	2	2	1	2	3	3	6	2	0

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



Table 3: Investigation of AFP cases with paralysis onset in 2017 & 2018 up to Week (44/18) / Ending on : 04/11/2018

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	0	15.2	0	0	93.5	14	0	2786	19	0	193	2574	0	16.2	20	2	94.4	19	0	28-10-2018
Bahrain	18	0	0	0	18	0	6.2	0	0	100.0	0	0	26	0	0	8	18	0	10.6	1	0	96.2	0	0	28-10-2018
Djibouti	4	0	0	0	4	0	1.3	0	0	100.0	0	0	0	0	0	0	0	0	0.0	0	0		0	0	16-09-2018
Egypt	1242	0	0	0	1240	2	3.3	0	0	94.4	0	0	1056	0	0	99	957	0	3.3	1	0	91.7	0	0	01-11-2018
Iran	820	0	0	0	820	0	4.3	0	0	96.7	0	0	684	0	0	14	669	1	4.2	0	0	96.9	0	0	27-10-2018
Iraq	699	0	0	0	699	0	4.7	0	0	86.7	0	0	768	0	0	64	704	0	6.0	13	1	89.7	0	0	25-10-2018
Jordan	116	0	0	0	116	0	4.2	0	0	100.0	0	0	106	0	0	5	101	0	4.5	0	0	100.0	0	0	01-11-2018
Kuwait	69	0	0	0	69	0	7.5	0	0	92.8	0	0	54	0	0	4	50	0	7.2	0	0	90.7	0	0	28-10-2018
Lebanon	75	0	0	0	75	0	4.0	0	0	80.0	0	0	74	0	0	6	68	0	4.7	0	0	97.3	0	0	02-11-2018
Libya	88	0	0	0	88	0	4.3	0	0	96.6	0	0	108	0	0	11	97	0	5.1	2	1	96.3	0	0	03-11-2018
Morocco	143	0	0	0	143	0	1.3	0	0	67.1	0	0	162	0	0	61	101	0	2.1	19	0	68.5	0	0	30-10-2018
Oman	40	0	0	0	40	0	4.5	0	0	90.0	0	0	25	0	0	1	24	0	3.4	0	0	76.0	0	0	28-10-2018
Pakistan	10319	8	2	0	10309	0	13.2	0	0	85.6	8	0	9452	8	1	622	8821	0	14.4	96	0	88.1	8	0	04-11-2018
Palestine	43	0	0	0	43	0	2.3	0	0	97.7	0	0	40	0	0	9	31	0	2.5	0	0	92.5	0	0	04-11-2018
Qatar	18	0	0	0	18	0	6.1	0	0	100.0	0	0	9	0	0	0	9	0	3.0	0	0	100.0	0	0	04-11-2017
Saudi Arabia	276	0	0	0	276	0	3.5	0	0	98.9	0	0	165	0	0	45	120	0	2.4	13	0	95.2	0	0	04-11-2018
Somalia	345	0	0	1	344	0	6.0	1	1	99.1	0	0	295	0	0	16	267	12	5.5	2	2	98.0	0	0	05-11-2018
Sudan	570	0	0	0	570	0	3.2	0	0	96.3	0	0	486	0	0	20	466	0	3.2	3	0	97.7	0	0	04-11-2018
Syria	362	0	1	0	287	74	4.7	0	0	80.9	0	0	291	0	0	20	271	0	4.5	0	0	86.9	0	0	03-11-2018
Tunisia	67	0	0	0	67	0	2.5	0	0	74.6	0	0	58	0	0	9	49	0	2.6	2	2	81.0	0	0	02-11-2018
U.A.E	58	0	0	0	58	0	5.7	0	0	98.3	0	0	35	0	0	4	31	0	3.3	0	0	97.1	0	0	28-10-2018
Yemen	713	0	0	73	640	0	5.2	73	58	90.2	0	0	553	0	0	485	68	0	4.7	368	346	93.5	0	0	03-11-2018
EMR	19179	22	3	74	19004	76	7.7	74	59	88.9	22	0	17233	27	1	1696	15496	13	8.2	540	354	90.4	27	0	
2016	16008	33	5	1	15961	8	6.4	0	0	89.6	33	0													

Advance notification of a newly reported VDPV1 case from Egypt, from Dakahlia province, Talkha district, with date of onset 07/10/2018

* 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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AFP SURVEILLANCE
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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	789	4	0	42	164	20
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	400	0	0	11	48	39
IRN	143	0	0	5	1	0	121	0	0	2	5	0
IRQ	698	0	0	18	101	16	640	0	0	17	77	36
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	205	0	0	3	15	20
LIB	4	0	0	0	0	1	0	0	0	0	0	0
MOR	87	0	0	0	7	0	90	0	0	0	9	19
OMA	115	0	0	1	24	1	59	0	0	2	14	0
PAK	3758	2	0	234	897	0	3371	3	0	144	755	101
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	3	878	0	10	40	96	42
SUD	385	0	0	6	32	46	299	0	0	2	22	98
SYR	570	0	63	3	11	0	546	0		4	10	25
TUN	26	0	0	0	0	0	14	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	1156	0	0	0	0	1156
EMR	10538	3	63	446	1713	775	8575	7	10	267	1215	1562

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	3	12-10-18
2018 Total		7	12-10-18
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	FATA	BAJOUR	1	01-09-18	01-09-18
		BALUCHISTAN	DUKKI	1	15-04-18	15-04-18
	2018 Total			4	15-04-18	01-09-18
2017	AFG	HILMAND	NAWZAD	1	16-04-17	16-04-17
	2017 Total			1	16-04-17	16-04-17



Table 5: Laboratory investigation of AFP cases with paralysis onset in 2018 up to Week (44/18) / Ending on : (04/11/2018)

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	2717	199	20	519	1881	93	6	17	152						135						17%	89%	100%	98%	03/11/2018	
Bahrain	NPL Oman / CDC	24			1	23																4%	100%		50%	05/11/2018	
Djibouti	NPL Kenya / CDC																									16/09/2018	
Egypt***	RRL Egypt	1026	29	6	136	819	33	3		15	1					18				6		12%	95%	100%	99%	01/11/2018	
Iran	NPL Iran / CDC	713	16		19	667	10	1		11	1					8						2%	100%	100%	99%	03/11/2018	
Iraq	RRL Egypt	783	17		90	641	23	12		11						12						12%	100%	100%	76%	01/11/2018	
Jordan	NPL Jordan / RRL EGYPT	105	4		5	95	1			3						4						7%	100%	100%	100%	04/11/2018	
Kuwait	RRL Kuwait / RIVM	54	1		4	45	3	1											1			6%	96%		98%	04/11/2018	
Lebanon	NPL Jordan / RRL EGYPT	77	2		4	68	2	1		2						2						8%	100%	100%	50%	04/11/2018	
Libya	RRL Tunisia / RIVM	102	1		11	87		3								1						10%	100%	100%	98%	19/10/2018	
Morocco	NPL Morocco / RRL Tunisia	145	1		3	127	13	1								1						3%	91%	0%	95%	02/11/2018	
Oman	NPL Oman / CDC	25			5	19	1															23%	92%		100%	05/11/2018	
Pakistan	RRL Pakistan	9210	378	43	2021	6431	328	9	6	249						291				11	1	19%	91%	99%	97%	03/11/2018	
Palestine & UNRWA		40			6	31	1	2														16%	59%		100%	04/11/2018	
Qatar	NPL Oman / CDC	9			1	8																11%	88%		100%	05/11/2018	
Saudi Arabia	NPL Saudi Arabia / CDC	161	2		2	153	1	3								2						1%	97%	50%	100%	28/10/2018	
Somalia	NPL Kenya / CDC	295	32	1	25	222	3	12		13			4	6 #		11	7 #			3		9%	14%		100%	05/11/2018	
Sudan	NPL Sudan / RRL Egypt	491	5		45	424	16	1		4						1				1		11%	96%	100%	83%	04/11/2018	
Syria	NPL Syria / RRL Egypt	290	6		9	260	8	7		2						2						3%	100%	100%	60%	01/11/2018	
Tunisia	RRL Tunisia	64			2	58		4														2%	98%		97%	19/10/2018	
U.A.E	NPL Oman / CDC	36			4	31	1															10%	89%		83%	05/11/2018	
Yemen	NPL Kenya / CDC																									03/11/2018	
Total EMR 2018		16367	693	70	2912	12090	537	66	23	462	2		4	6		488	7			18	5	15%	91%	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	206
	PENDING				24
	WILD	20	2	42	50
AFG Total		149	185	316	280
EGY	NEGATIVE	495	528	522	431
	PENDING				16
	VDPV2	3	1		
EGY Total		498	529	522	447
IRN	NEGATIVE			6	40
	PENDING				2
IRN Total				6	42
JOR	NEGATIVE	2	32	15	
	PENDING				15
JOR Total		2	32	30	
LEB	NEGATIVE		4	27	10
	PENDING				27
LEB Total			4	27	37
PAK	NEGATIVE	347	462	523	421
	PENDING				39
	WILD	79	59	105	96
	WILD & VDPV2	5	3	1	
	VDPV2	8	5	4	
PAK Total		439	529	633	556
SOM	NEGATIVE			34	139
	PENDING				18
	VDPV2			2	17
	VDPV3				10
SOM Total				36	184
SYR	NEGATIVE			4	69
	PENDING				10
SYR Total				4	79
Grand Total		1086	1249	1576	1655

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			
				KUNAR	1	25-Dec	25-Dec			
				BEHSUD	3	24-Sep	26-Dec			
				JALALABAD	10	24-Jan	26-Dec			
				AFG Total	42	24-Jan	27-Dec			
				PAK	WILD	BALOCHISTAN	LORALAI	3	17-Sep	17-Nov
							PISHIN	5	2-Jan	2-Oct
	QUETTA	12	1-Jan				20-Dec			
	ZHOB	1	18-Dec				18-Dec			
	KABDULAH	12	1-Jan				15-Oct			
	ISLAMABAD	5	10-Feb				10-Jul			
	PUNJAB	1	18-Dec				18-Dec			
	MULTAN	1	9-Jan				9-Jan			
	RAWALPINDI	8	10-Jan				10-Oct			
	SINDH	4	11-Aug				13-Dec			
	KAMBAR	1	15-Aug	15-Aug						
	KHIBALDIA	2	8-Aug	3-Nov						
KHIGADAP	21	9-Jan	12-Dec							
KHIKORANGI	1	16-Oct	16-Oct							
KHILANDHI	7	16-Mar	14-Dec							
KHISITE	5	7-Aug	4-Dec							
SUKKUR	2	11-Apr	19-Sep							
KHIMALIR	6	3-Feb	10-Oct							
KHYBER PAKHTUNKHWA	8	10-Jan	11-Dec							
WILD & VDPV2	1	15-Jul	15-Jul							
VDPV2	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	2	8-Jan	25-Sep			
				HIRAT	1	25-Jun	25-Jun			
				KABUL	3	26-Feb	26-Jun			
				KANDAHAR	28	8-Jan	3-Oct			
				KHOST	1	25-Sep	25-Sep			
				KUNAR	2	24-Apr	25-Sep			
				NANGARHAR	2	28-Jan	25-Feb			
				JALALABAD	11	27-Jan	25-Jul			
				AFG Total	50	8-Jan	3-Oct			
				PAK	WILD	BALOCHISTAN	LORALAI	2	17-Mar	17-Aug
							QUETTA	7	13-Feb	20-Sep
	KABDULAH	4	1-Jan				1-Oct			
	ISLAMABAD	6	10-Jan				10-Oct			
	PUNJAB	7	11-Jun				11-Oct			
	RAWALPINDI	11	10-Jan				10-Oct			
	DGKHAN	2	12-Feb				12-Sep			
	SINDH	1	9-Feb				9-Feb			
	JACOBABAD	3	12-Feb				12-Sep			
	KAMBAR	3	7-Apr				9-Jul			
	KHIBALDIA	2	1-Aug				4-Sep			
	KHIGADAP	12	15-Feb				10-Oct			
	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	1	10-Sep	10-Sep						
	KHIMALIR	1	13-Sep	13-Sep						
FATA	4	19-May	24-Sep							
KHYBER PAKHTUNKHWA	1	31-Mar	31-Mar							
KOHAT	5	5-Jan	27-Sep							
NOWSHERA	1	18-Sep	18-Sep							
PESHAWAR	16	10-Jan	10-Oct							
PAK Total	96	1-Jan	11-Oct							
SOM	VDPV2	BANADIR	HAMAR WEYN	10	4-Jan	13-Sep				
			HODAN	1	22-Feb	22-Feb				
			WABERI	6	1-Mar	20-Sep				
			HAMAR WEYN	5	8-Mar	5-Apr				
			WABERI	5	8-Mar	23-Aug				
SOM Total	27	4-Jan	20-Sep							
2018 Total				173	1-Jan	11-Oct				



Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2018 - 04/11/2018

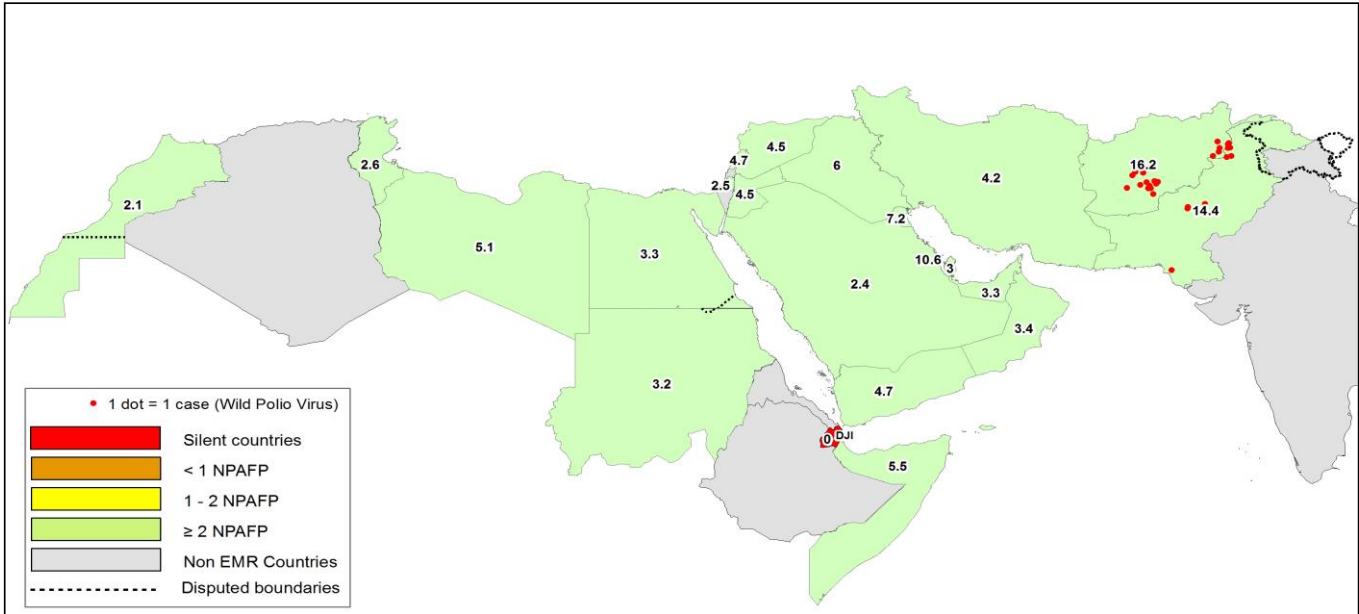


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2018 - 04/11/2018

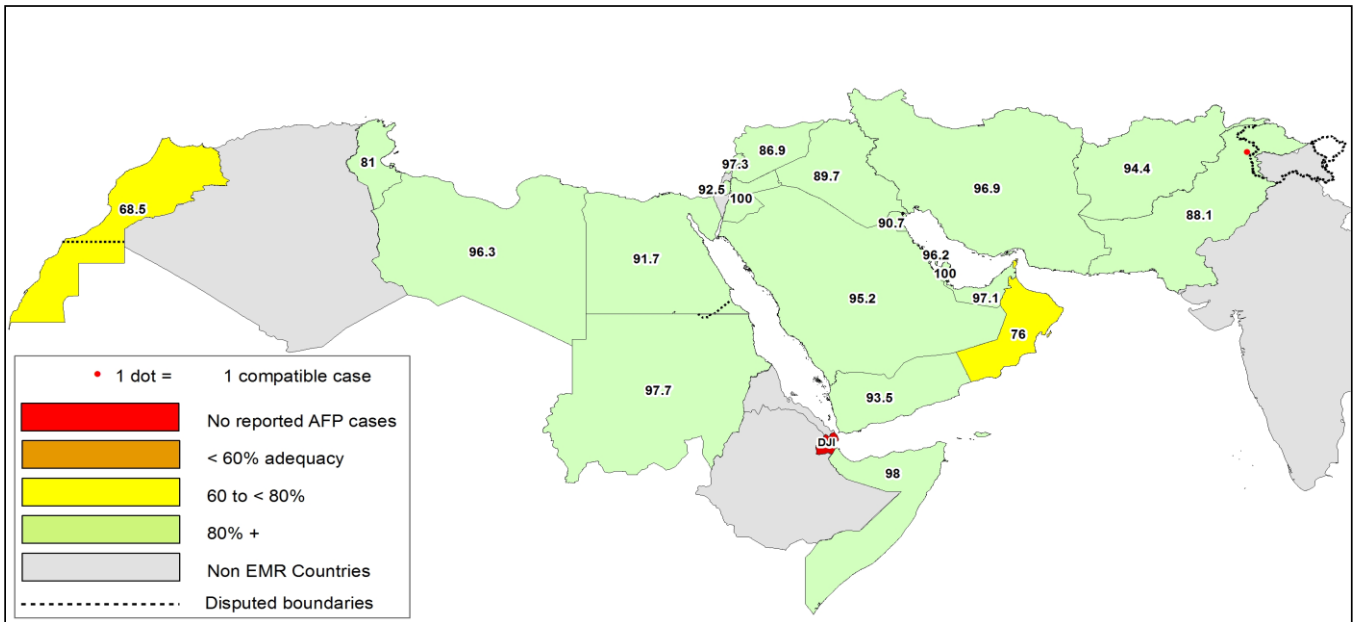


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2017 - 2018

Year	COUNTRY	Count	First Case	Last Case
2018	AFG	19	01-01-18	02-10-18
	PAK	8	08-03-18	07-10-18
2018 Total		27	01-01-18	07-10-18
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 - 04/11/2018

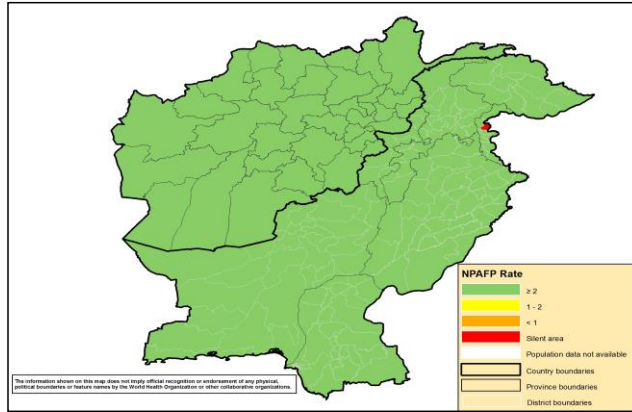


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan by Province & Pakistan by District 01/01/2018 - 04/11/2018

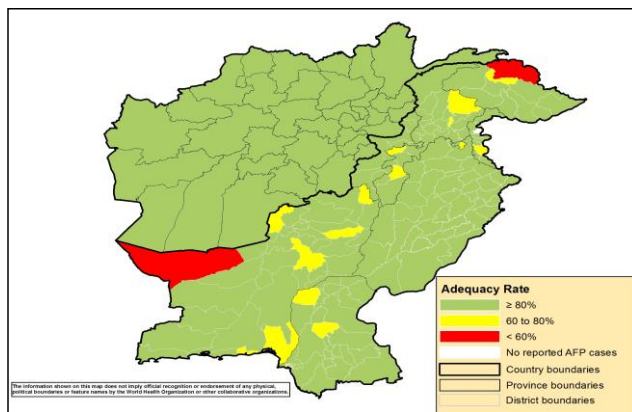
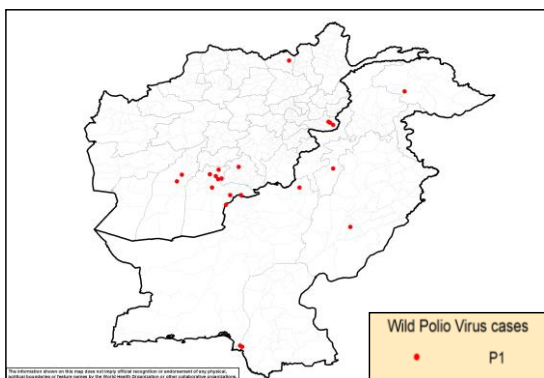
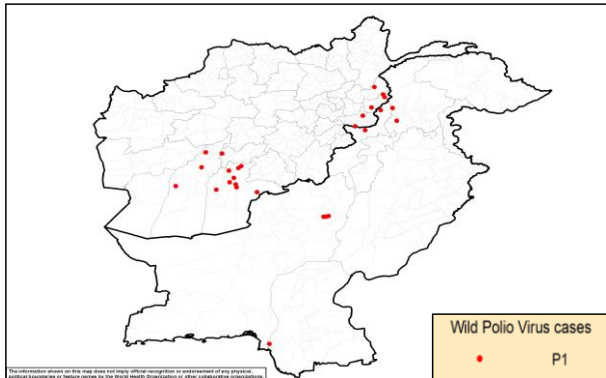


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

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



5b: 01/01/2018 - 04/11/2018



**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	2	1-Sep-18	2-Oct-18
		NAD-E-ALI	1	1-Jun-18	1-Jun-18
	NURISTAN	PORUNS	1	26-Sep-18	26-Sep-18
	KANDAHAR	MAYWAND	1	24-Sep-18	24-Sep-18
		KANDAHAR	2	11-Aug-18	27-Aug-18
		ARGHANDAB (K)	1	17-Jul-18	17-Jul-18
		SHAHWALIKOT	3	5-Jan-18	27-Apr-18
		KHAKREZ	1	25-Feb-18	25-Feb-18
	NANGARHAR	SPINBOLDAK	1	6-Jan-18	6-Jan-18
		PACHIERAGAM	1	17-Jul-18	17-Jul-18
		KAMA	1	1-Jan-18	1-Jan-18
	URUZGAN	SHAHID-E-HASSAS	1	8-Jul-18	8-Jul-18
	KUNAR	CHAWKAY	1	22-Jun-18	22-Jun-18
GHAZIABAD		2	14-Feb-18	3-Mar-18	
2018 Total			19	1-Jan-18	2-Oct-18
2017	KANDAHAR	SPINBOLDAK	1	28-Dec-17	28-Dec-17
		SHAHWALIKOT	5	19-Jun-17	3-Dec-17
		KANDAHAR	1	13-Jan-17	13-Jan-17
	NANGARHAR	MUHMAND DARA	1	5-Nov-17	5-Nov-17
		BATIKOT	2	15-Sep-17	11-Oct-17
	ZABUL	ARGHANDAB (Z)	1	10-Jul-17	10-Jul-17
	HILMAND	NAWZAD	1	16-Apr-17	16-Apr-17
		NAHR-E-SARAJ	1	21-Jan-17	21-Jan-17
KUNDUZ	DASHT-E-ARCHI	1	21-Feb-17	21-Feb-17	
2017 Total			14	13-Jan-17	28-Dec-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	FATA	BAJOUR	2	01-09-18	07-10-18
		KHYBER	1	25-09-18	25-09-18
	SINDH	KHIGADAP	1	22-09-18	22-09-18
	KHYBER PAKHTOON	CHARSADA	1	01-08-18	01-08-18
	BALUCHISTAN	DUKKI	3	08-03-18	18-05-18
2018 Total			8	08-03-18	07-10-18
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

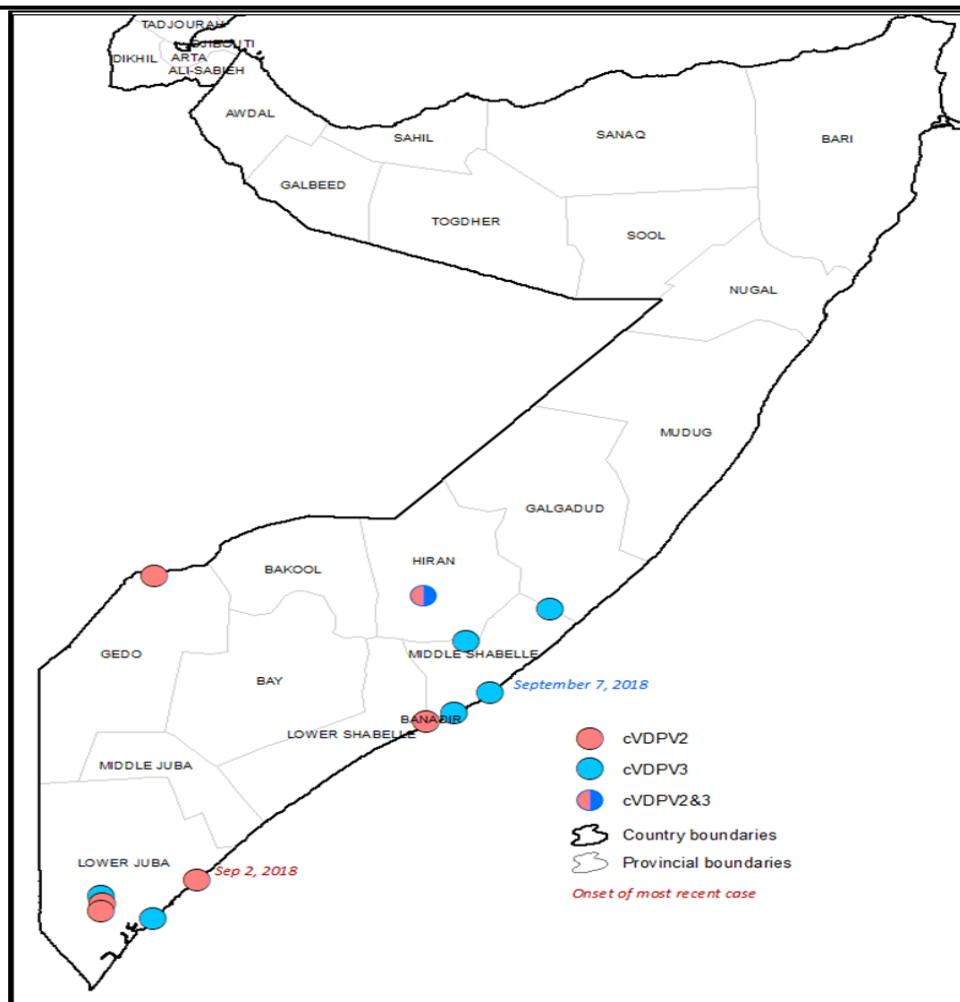


Table 11: Circulating VDPV cases and date of onset of paralysis in EMR countries by districts 2017-2018

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	2	24-Jul-18	27-Jul-18
		MIDDLE SHABELLE	RUNINGOD				1	07-Sep-18	07-Sep-18
			MAHADAY				1	29-Jun-18	29-Jun-18
			WARSHEIKH				2	16-May-18	23-May-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

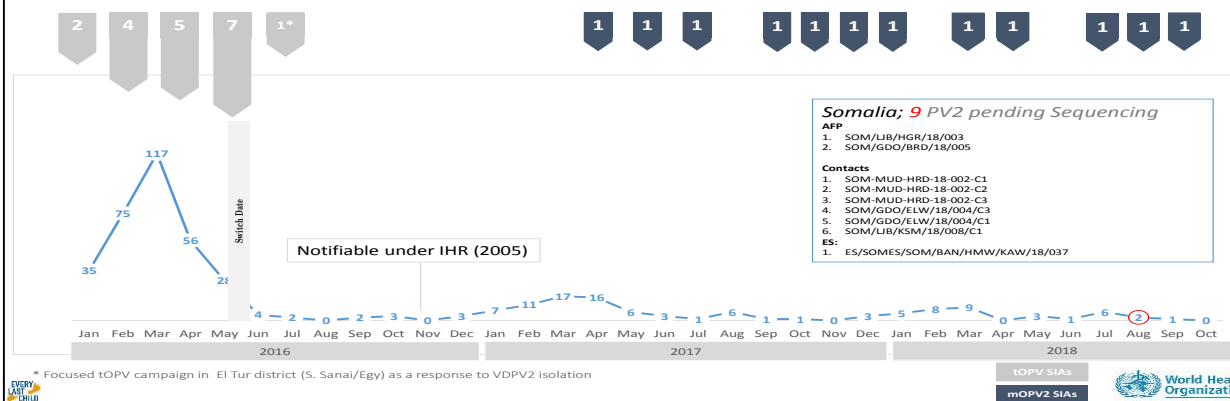
Somalia in 2018 so far has a total of 12 cVDPV cases (5 cVDPV2, 6 cVDPV3 & 1 coinfection cVDPV2/cVDPV3)

Figure 6: Somalia cVDPV cases by type and district 01/01/2018 - 04/11/2018

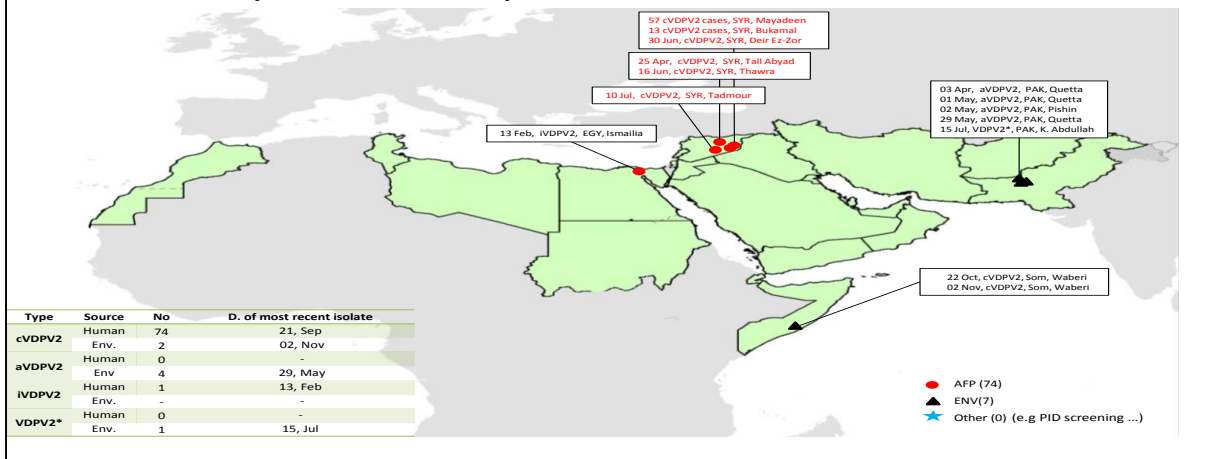




Sabin Like Type-2 Poliovirus Isolates (H & E) EMR, 2016-17-18



VDPV2 isolates, EMR countries, 2017



VDPV2 isolates, EMR countries, 2018

