



AFP SURVEILLANCE

24-Apr-17

Week 16, ending 23 April 2017

Number 968

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

Country	Reported AFP cases by week of onset - Week (16/17) / Ending on : 23/04/2017														
	Total AFP 2015	Total AFP 2016	Total AFP to date, 2017	W05 05 Feb 17	W06 12 Feb 17	W07 19 Feb 17	W08 26 Feb 17	W09 05 Mar 17	W10 12 Mar 17	W11 19 Mar 17	W12 26 Mar 17	W13 02 Apr 17	W14 09 Apr 17	W15 16 Apr 17	W16 23 Apr 17
Afghanistan	2738	2905	883	51	67	68	58	77	41	50	66	67	59	49	8
Bahrain	19	14	8	0	2	0	1	2	0	0	0	1	2	0	0
Djibouti	3	3	4	0	0	1	0	1	0	1	0	0	0		
Egypt	1046	1092	372	28	22	36	25	26	20	28	26	26	27	11	
Iran	780	776	187	16	20	14	8	15	10	6	12	16	7	4	1
Iraq	520	605	197	9	14	13	11	13	12	14	13	9	11	13	
Jordan ****	90	107	30	1	2	1	3	2	2	2	2	1	3	1	
Kuwait	32	50	23	1	0	1	0	0	0	7	2	2	2	2	0
Lebanon ****	113	111	28	0	3	4	4	2	2	1	1	1	0	0	
Libya	54	70	32	0	2	3	1	2	2	0	3	4	0	3	
Morocco	79	83	30	2	3	2	3	4	5	1	2	0	1	1	
Oman	39	39	7	0	1	2	1	1	0	0	0	2	0	0	
Pakistan	5814	7844	2447	178	186	207	186	192	177	177	145	148	101	33	0
Palestine ****	38	46	11	0	1	2	0	0	1	1	0	0	0	1	0
Qatar	11	9	5	1	3	0	1	0	0	0	0	0	0		
Saudi Arabia	254	273	68	10	7	3	4	2	6	7	3	1	1	0	0
Somalia	281	316	117	2	8	9	11	7	12	8	9	8	6	5	1
Sudan	436	509	139	9	7	11	8	5	16	7	14	6	5	3	0
Syria ****	235	303	78	5	8	3	9	5	5	6	5	8	3	2	
Tunisia	64	90	13	0	2	3	0	3	1	0	1	0	0	0	
U.A.E	31	42	18	2	1	0	3	2	3	0	1	1	0	1	0
Yemen	537	715	227	7	17	12	17	25	19	16	16	12	16	4	
Total EMR	13214	16002	4924	322	376	395	354	386	334	332	321	313	244	133	10

☐ No data = No report received

Table 2: Confirmed polio cases by month of onset

Country	Total year 2015	Total year 2016	23/04		Confirmed polio cases by month of onset											
			2016	2017	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016	January 2017	February 2017	March 2017	April 2017
Afghanistan	20	13	5	3	1	0	0	2	2	2	0	1	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				
Egypt	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			
Iraq	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			
Kuwait	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	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			
Pakistan	54	20	10	2	0	2	1	0	2	2	1	1	1	1		
Palestine ****	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	
Saudi Arabia	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			
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			
Tunisia	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			
Yemen	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total EMR	74	33	15	5	1	2	1	2	4	4	1	2	3	2	0	0

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



Table 3: Investigation of AFP cases with paralysis onset in 2016 & 2017 up to Week (16/17) / Ending on : 23/04/2017

COUNTRY	2016												2017												Latest line List Date
	AFP									Specimen	Wild cases ****		AFP									Specimen	Wild cases ****		
	Total AFP cases onset 2016	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 2017	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	2905	13	0	0	2891	1	14.4	0	0	92.2	13	0	883	3	0	249	631	0	13.8	11	1	93.2	3	0	23/04/2017
Bahrain	14	0	0	0	14	0	4.9	0	0	100.0	0	0	8	0	0	8	0	0	8.9	0	0	100.0	0	0	23/04/2017
Djibouti	3	0	0	0	3	0	1.0	0	0	33.3	0	0	4	0	0	4	0	0	4.4	0	0	100.0	0	0	10/04/2017
Egypt	1092	0	0	1	1091	0	2.9	1	0	94.1	0	0	372	0	0	116	255	0	3.1	0	0	89.2	0	0	13/04/2017
Iran	776	0	0	0	775	1	4.2	0	0	95.5	0	0	187	0	0	11	176	0	3.2	0	0	97.3	0	0	23/04/2017
Iraq	605	0	0	6	598	1	4.2	6	1	80.7	0	0	197	0	0	45	152	0	4.3	8	0	88.3	0	0	22/04/2017
Jordan	107	0	0	3	104	0	3.8	3	0	100.0	0	0	30	0	0	22	8	0	3.5	3	0	96.7	0	0	13/04/2017
Kuwait	50	0	0	0	50	0	5.7	0	0	90.0	0	0	23	0	0	9	14	0	8.5	1	0	73.9	0	0	24/04/2017
Lebanon	111	0	0	8	103	0	5.8	8	0	82.9	0	0	28	0	0	2	26	0	4.8	0	0	89.3	0	0	22/04/2017
Libya	70	0	0	0	70	0	3.4	0	0	97.1	0	0	32	0	0	13	19	0	4.9	2	0	93.8	0	0	22/04/2017
Morocco	83	0	0	0	83	0	0.8	0	0	61.4	0	0	30	0	0	8	22	0	0.9	0	0	80.0	0	0	21/04/2017
Oman	39	0	0	0	39	0	4.5	0	0	89.7	0	0	7	0	0	4	3	0	2.2	0	0	85.7	0	0	16/04/2017
Pakistan	7844	20	5	23	7794	2	10.0	23	11	87.4	20	0	2447	2	0	403	2042	0	10.1	46	1	90.4	2	0	23/04/2017
Palestine	46	0	0	0	46	0	2.4	0	0	97.8	0	0	11	0	0	7	4	0	1.9	0	0	100.0	0	0	23/04/2017
Qatar	9	0	0	0	9	0	3.0	0	0	100.0	0	0	5	0	0	5	0	0	5.4	0	0	80.0	0	0	09/04/2017
Saudi Arabia	273	0	0	0	273	0	2.8	0	0	97.8	0	0	68	0	0	62	6	0	2.3	13	12	98.5	0	0	23/04/2017
Somalia	316	0	0	0	315	1	5.5	0	0	99.1	0	0	117	0	0	23	94	0	6.5	0	0	97.4	0	0	23/04/2017
Sudan	509	0	0	0	509	0	2.8	0	0	97.6	0	0	139	0	0	13	126	0	2.5	0	0	98.6	0	0	23/04/2017
Syria	303	0	0	0	303	0	3.9	0	0	87.8	0	0	78	0	0	18	60	0	3.2	0	0	88.5	0	0	22/04/2017
Tunisia	90	0	0	0	89	1	3.4	0	0	77.8	0	0	13	0	0	1	12	0	1.6	1	1	76.9	0	0	19/04/2017
U.A.E	42	0	0	0	42	0	4.2	0	0	100.0	0	0	18	0	0	6	12	0	5.8	0	0	94.4	0	0	23/04/2017
Yemen	715	0	0	0	714	1	5.4	0	0	90.9	0	0	227	0	0	136	91	0	5.3	2	0	93.0	0	0	22/04/2017
EMR	16002	33	5	41	15915	8	6.4	41	12	89.8	33	0	4924	5	0	1165	3753	0	6.3	87	15	91.5	5	0	
2015	13214	74	15	1	13116	8	5.2	1	0	90.2	74	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

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



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Table 4 (a): Most recent wild contacts in EMRO, 01/01/2016 - 23/04/2017

Year	Country	Data	
		Count of wild contacts	Date of Most Recent stool collection
2016	Pakistan	5	25-11-16
	Afghanistan	4	07-10-16
2016 Total		9	25-11-16

Table 4 (b): Number and distribution by district of -ve index AFP cases identified as wild positive by contact in EMR, 2016-2017

YEAR	COUNTRY	PROVINCE	DISTRICT	COUNT	First case	Last case
2016	AFG	KUNAR	SHIGAL WA SHELTAN	1	26-02-16	26-02-16
		HILMAND	NAWZAD	1	23-01-16	23-01-16
		PAKTIKA	BERMEL	1	01-09-16	01-09-16
	AFG Total			3	23-01-16	01-09-16
	PAK	KHYBER PAKHTOON	KOHISTAN	1	03-09-16	03-09-16
		SINDH	BADIN	1	10-10-16	10-10-16
PAK Total			2	03-09-16	10-10-16	



Table 5: Laboratory investigation of AFP cases with paralysis onset in 2017 up to Week (16/17) / Ending on : (23/04/2017)

Country	Polio laboratories Sequencing performed by 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	VPV	Wild	Sabin	VPV	Wild	Sabin	VPV									
Afghanistan	RRL Pakistan	843	73	8	89	542	131		3	59								1			12%	100%	99%	98%	22/04/2017	
Bahrain	PNL Oman	8				5	3														0%	100%		100%	24/04/2017	
Djibouti	NPL Kenya	4						4																	10/04/2017	
Egypt***	RRL Egypt	366	4	1	38	275	35	13		2			1		1				2		9%	100%	100%	100%	23/04/2017	
Iran	NPL Iran	174	3		2	148	8	13		2					2						1%	98%	100%	100%	15/04/2017	
Iraq	RRL Egypt	198	16		18	131	30	3		10					12						11%	100%	100%	100%	20/04/2017	
Jordan	RRL Tunisia	31	1		2	26	2								1						8%	100%	100%	100%	23/04/2017	
Kuwait	RRL Kuwait	25			1	18	5	1													3%	89%		100%	19/04/2017	
Lebanon	NPL Jordan	27	1		3	22	1														13%	100%			23/04/2017	
Libya	RRL Tunisia	11				9		2													0%	100%		100%	24/02/2017	
Morocco	RRL Tunisia	25			1	23	1														3%	100%		100%	21/04/2017	
Oman	NPL Oman	7			3	4															23%	100%		100%	24/04/2017	
Pakistan	RRL Pakistan	2592	148	6	332	1872	231	1	2	85			5		102			1	1		12%	100%	100%	98%	22/04/2017	
Palestine & UNRWA		11			4	5	1	1													44%	13%		100%	23/04/2017	
Qatar	NPL Oman	5				5															0%	100%		100%	24/04/2017	
Saudi Arabia	NPL Oman	76			12	52	12														12%	97%		100%	23/04/2017	
Somalia	NPL Kenya	117	10	2	12	70	10	13		8					10						15%	31%		100%	23/04/2017	
Sudan	RRL Egypt	140	2		15	111	10	2		1											11%	100%	100%	100%	23/04/2017	
Syria	RRL Egypt	72	2			56	2	12		1					2						0%	100%	100%	100%	20/04/2017	
Tunisia	RRL Tunisia	8				4		4													3%	100%		100%	24/02/2017	
U.A.E	NPL Oman	14	1		2	9	2			1					1						17%	100%	100%	58%	24/04/2017	
Yemen	RRL Egypt	204	2	2	10	75	115			2					3			2			13%	99%	100%	30%	23/04/2017	
Total EMR 2017		4958	263	19	544	3462	599	69	5	171			5	1	193		1	6			11%	98%	100%	97%		
Total EMR 2016		15751	823	93	2781	12039		12	28	483			86	6	566	1	2	23	3	4	15%	95%	98%	94%		

* 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	Status	2010	2011	2012	2013	2014	2015	2016	2017
AFG	NEGATIVE				9	78	129	183	69
	PENDING								9
	WILD					17	20	2	4
AFG Total					9	95	149	185	82
EGY	NEGATIVE	183	178	196	304	410	412	528	142
	PENDING								21
	WILD			2					
	VDPV1			1		1			
	VDPV2			7	3	2	3	1	
EGY Total		183	178	206	307	413	415	529	163
JOR	NEGATIVE							2	9
	PENDING								3
JOR Total								2	12
LEB	NEGATIVE							4	6
	PENDING								
LEB Total								3	6
PAK	NEGATIVE	77	68	151	257	237	347	462	132
	PENDING								39
	WILD	79	136	88	63	125	79	59	27
	WILD & VDPV2				2	6	5	3	
	VDPV2					4	8	5	
PAK Total		156	204	239	322	372	439	529	198
EMR	NEGATIVE	260	246	347	570	725	888	1179	358
	PENDING								72
	WILD	79	136	90	63	142	99	61	31
	WILD & VDPV2				2	6	5	3	
	VDPV1			1		1			
VDPV2			7	3	6	11	6		
EMR Total		339	382	445	638	880	1003	1248	461

Table 7: Environmental Wild/VDPV isolate by site

Year	Country	Status	Province	District	Count	First date	Last date
2016	AFG	WILD1	HILMAND	NAHR-E-SARAJ	1	23-Dec	23-Dec
			NANGARHAR	JALALABAD	1	26-Dec	26-Dec
AFG Total					2	23-Dec	26-Dec
2016	EGY	VDPV2	SOUTH SINIA	EL TUR	1	15-Mar	15-Mar
EGY Total					1	15-Mar	15-Mar
2016	PAK	WILD1	BALOCHISTAN	KABDULLAH	6	15-Jan	2-Dec
				PISHIN	4	2-Aug	16-Sep
				QUETTA	11	12-Feb	20-Nov
				DIKHAN	1	16-Jul	16-Jul
			KHYBER PAKHTUNKHWA	PESHAWAR	10	11-Jan	10-Dec
				DERA GHAZI KHA	1	12-May	12-May
				FAISALABAD	2	3-Feb	2-Jul
				LAHORE	3	5-Aug	18-Oct
			PUNJAB	MULTAN	2	8-Nov	8-Dec
				RAWALPINDI	4	14-Apr	10-Dec
				HYDERABAD	1	5-Jan	5-Jan
				JACOBABAD	3	4-Feb	16-Aug
			SINDH	KHIBALDIA	1	14-Jul	14-Jul
				KHIGADAP	4	27-Jan	9-Mar
				KHIGIQBAL	2	18-Jan	15-Mar
				KHILANDHI	1	14-Dec	14-Dec
SUKKUR	3	12-Jan		19-Mar			
WILD1+VDPV2	BALOCHISTAN	QUETTA	3	20-Oct	12-Dec		
VDPV2	BALOCHISTAN	QUETTA	4	20-Jun	28-Dec		
	SINDH	HYDERABAD	1	11-Jul	11-Jul		
PAK Total					67	5-Jan	28-Dec
2016 Total					70	5-Jan	28-Dec
2017	AFG	WILD1	KANDAHAR	KANDAHAR	2	26-Jan	9-Mar
			NANGARHAR	JALALABAD	2	24-Jan	25-Mar
AFG Total					4	24-Jan	25-Mar
2017	PAK	WILD1	BALOCHISTAN	KABDULLAH	7	1-Jan	1-Apr
				PISHIN	3	2-Jan	2-Mar
				QUETTA	5	1-Jan	14-Mar
			ISLAMABAD	CDA	2	10-Feb	11-Mar
			KHYBER PAKHTUNKHWA	PESHAWAR	2	10-Jan	10-Feb
				MULTAN	1	9-Jan	9-Jan
				PUNJAB	RAWALPINDI	2	10-Jan
			SINDH	KHIGADAP	4	9-Jan	13-Mar
				KHIGIQBAL	1	3-Feb	3-Feb
PAK Total					27	1-Jan	1-Apr
2017 Total					31	1-Jan	1-Apr



Figure 1: Non Polio AFP Rate and Wild Virus in EMR 01/01/2017 - 23/04/2017

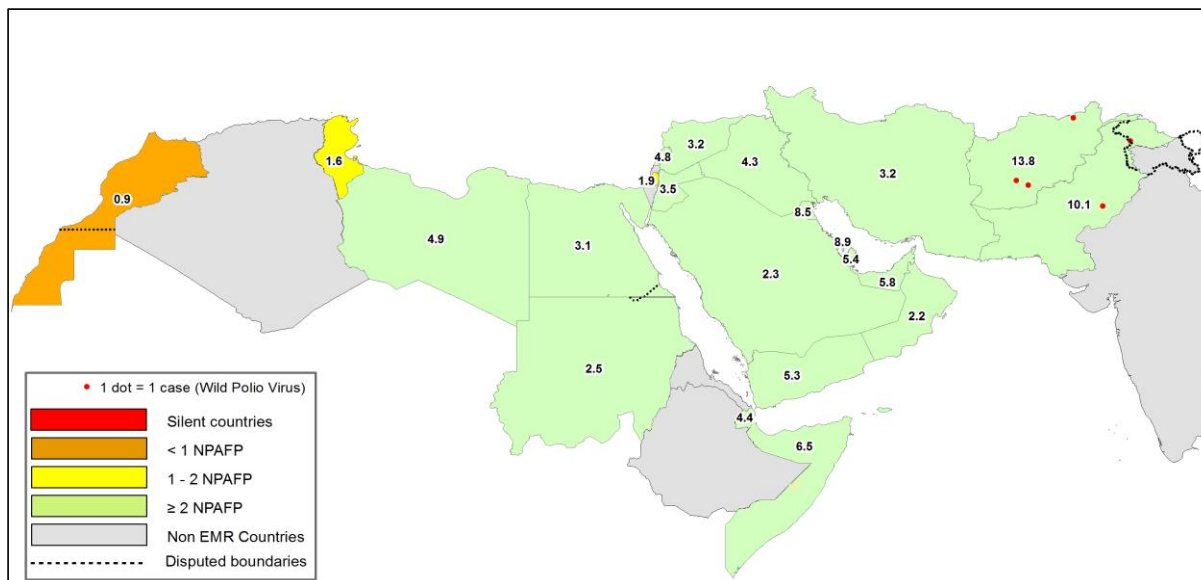


Figure 2: Percent of AFP cases with Adequate Samples & Compatible Cases in EMR 01/01/2017 - 23/04/2017

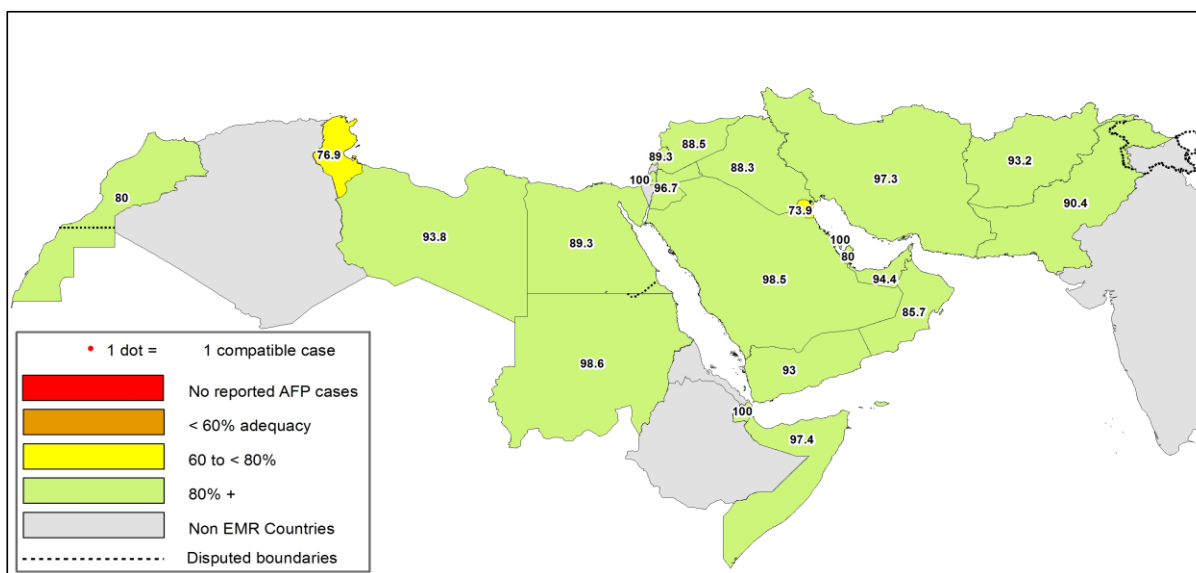


Table 8: Wild polio cases by country and date of onset of paralysis in EMR, 2016 - 2017

Year	COUNTRY	P1		
		Count	First Case	Last Case
2016	AFG	13	23-01-16	16-12-16
	PAK	20	17-01-16	22-12-16
2016 Total		33	17-01-16	22-12-16
2017	AFG	3	13-01-17	21-02-17
	PAK	2	28-01-17	13-02-17
2017 Total		5	13-01-17	21-02-17

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



Figure 3: Non Polio AFP rate by District in Afghanistan & Pakistan 01/01/2017 - 23/04/2017

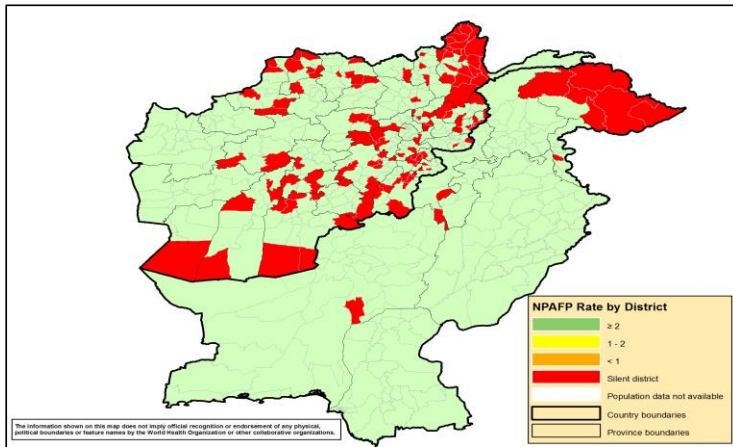


Figure 4: Percent of AFP cases with Adequate Samples in Afghanistan & Pakistan by District 01/01/2017 - 23/04/2017

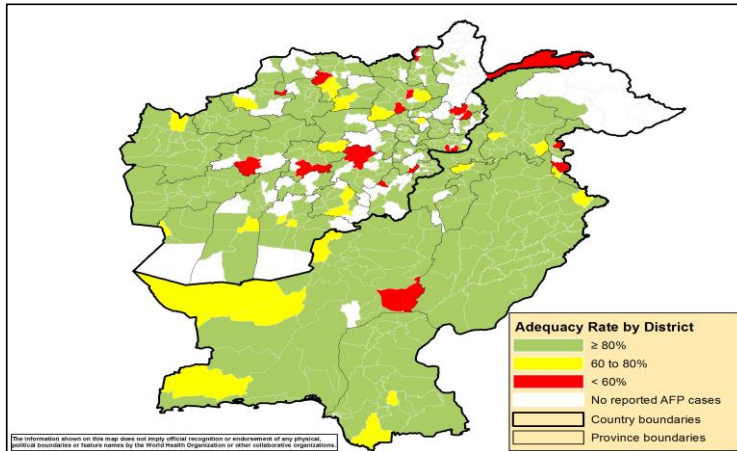
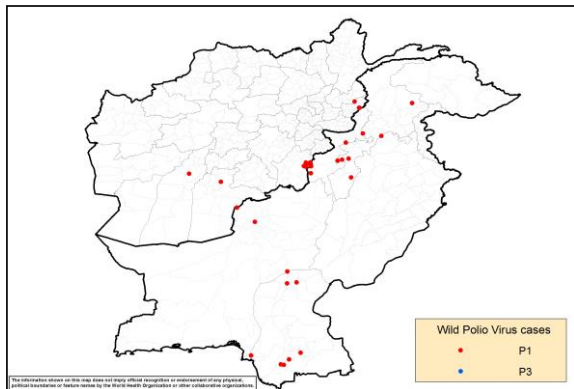


Figure 5: Wild Virus Cases by Type & District in Afghanistan & Pakistan

5a: 01/01/2016 - 31/12/2016



5b: 01/01/2017 - 23/04/2017

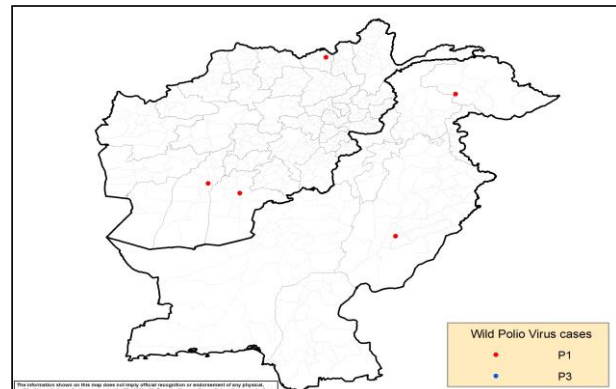




Table 9: Wild Polio cases by district and date of onset of paralysis, Afghanistan 2016-2017

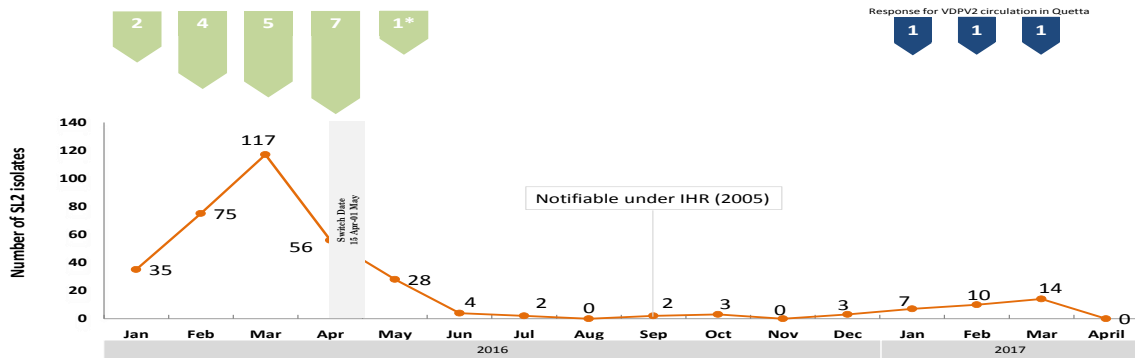
ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2016	PAKTIKA	BERMEL	7	02-08-16	16-12-16
	KUNAR	SHIGAL WA SHEL TAN	4	01-02-16	29-05-16
	KANDAHAR	SHAHWALIKOT	1	04-04-16	04-04-16
	HILMAND	NAWZAD	1	23-01-16	23-01-16
2016 Total			13	23-01-16	16-12-16
2017	KUNDUZ	DASHT-E-ARCHI	1	21-02-17	21-02-17
	HILMAND	NAHR-E-SARAJ	1	21-01-17	21-01-17
	KANDAHAR	KANDAHAR	1	13-01-17	13-01-17
2017 Total			3	13-01-17	21-02-17

Table 10: Wild Polio cases by district and date of onset of paralysis, Pakistan 2016-2017

ONSETYR	PROVINCE	DISTRICT	Count	First case	Last case
2016	BALOCHISTAN	KABDULAH	1	22-12-16	22-12-16
		QUETTA	1	01-02-16	01-02-16
	SINDH	SUJAWAL	2	03-09-16	03-11-16
		BADIN	2	10-10-16	16-10-16
		SHIKARPUR	2	05-03-16	12-04-16
		JACOBABAD	1	10-02-16	10-02-16
		KHIGADAP	1	17-01-16	17-01-16
		KHYBER PAKHTOON	KOHISTAN	1	03-09-16
	DIKHAN		1	06-06-16	06-06-16
	BANNU		3	22-03-16	26-04-16
	PESHAWAR		1	12-02-16	12-02-16
	HANGU		1	09-02-16	09-02-16
	NOWSHERA		1	22-01-16	22-01-16
FATA	WAZIR-S	2	18-06-16	27-07-16	
2016 Total			20	17-01-16	22-12-16
2017	GILGIT BALTISTAN	DIAMIR	1	13-02-17	13-02-17
	PUNJAB	LODHRAN	1	28-01-17	28-01-17
2017 Total			2	28-01-17	13-02-17



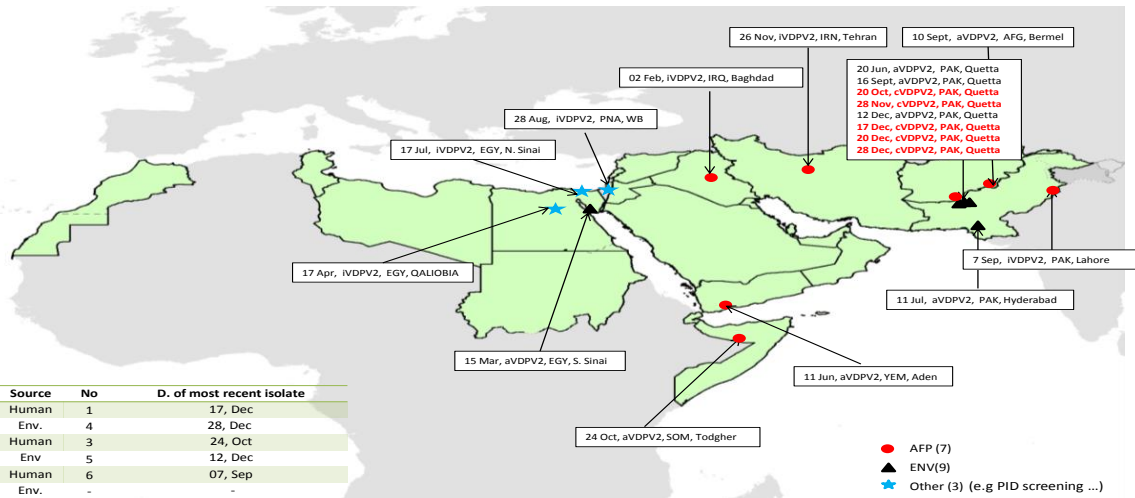
SL2 isolates, EMR countries from Human & ENV 2016/17



* Focused TOPV campaign in El Tur district (S. Sinai/Egy) as a response to VDPV2 isolation

LOPV SIA's
mOPV2 SIA's
17 April 2017

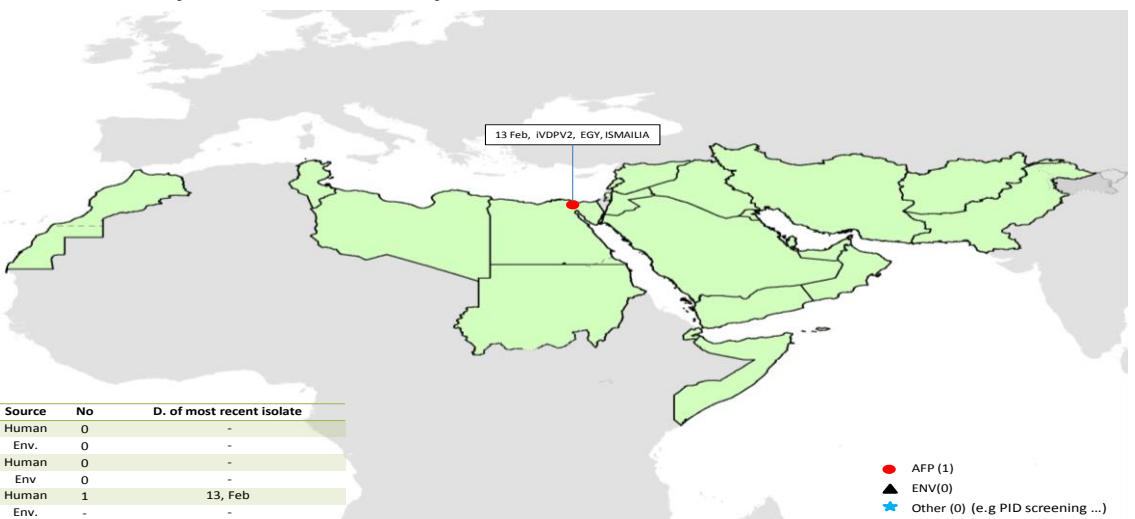
VDPV2 isolates, EMR countries, 2016



Type	Source	No	D. of most recent isolate
cVDPV	Human	1	17, Dec
	Env.	4	28, Dec
aVDPV	Human	3	24, Oct
	Env.	5	12, Dec
IVDPV	Human	6	07, Sep
	Env.	-	-

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VDPV2 isolates, EMR countries, 2017



Type	Source	No	D. of most recent isolate
cVDPV	Human	0	-
	Env.	0	-
aVDPV	Human	0	-
	Env.	0	-
IVDPV	Human	1	13, Feb
	Env.	-	-

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