

EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1200, Week 39 (ending on 03/10/2021)

Highlights



Children
Paralyzed
by polio

2020

■ **140 Wild Polio cases:**

- 56 in Afghanistan
- 84 in Pakistan

■ **515 cVDPV2 cases:**

- 308 in Afghanistan
- 135 in Pakistan
- 58 in Sudan
- 14 in Somalia

■ **31 cVDPV1 cases:**

- All in Yemen

2021

■ **2 Wild Polio cases:**

- 1 in Afghanistan
- 1 in Pakistan

■ **51 cVDPV2 cases:**

- 43 in Afghanistan
- 8 in Pakistan
- 0 in Sudan
- 0 in Somalia

■ **3 cVDPV1 cases:**

- All in Yemen



Sewage
water
sampling

2020

■ **469 Wild Polio isolates:**

- 35 in Afghanistan
- 434 in Pakistan

■ **352 cVDPV2 Isolates:**

- 174 in Afghanistan
- 135 in Pakistan
- 0 in Egypt
- 3 in Iran
- 14 in Sudan
- 26 in Somalia

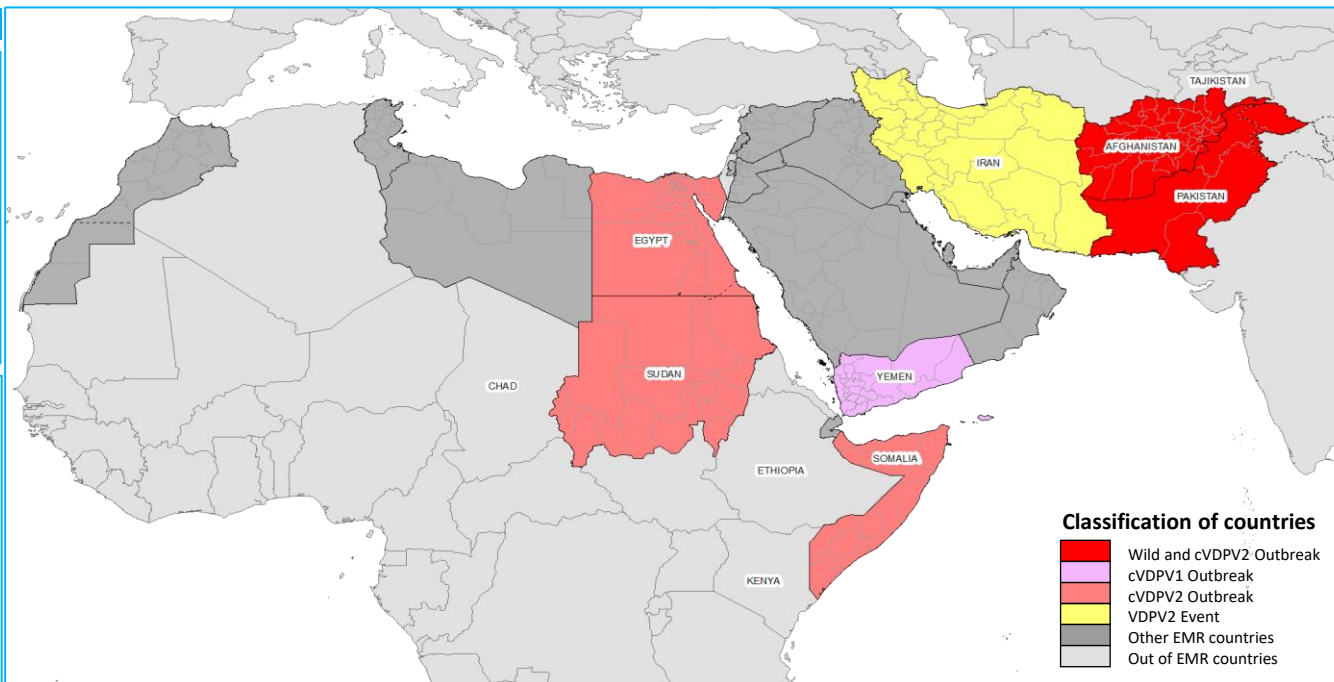
2021

■ **63 Wild Polio cases:**

- 1 in Afghanistan
- 62 in Pakistan

■ **87 cVDPV2 Isolates:**

- 40 in Afghanistan
- 35 in Pakistan
- 10 in Egypt
- 1 in Iran
- 0 in Sudan
- 1 in Somalia

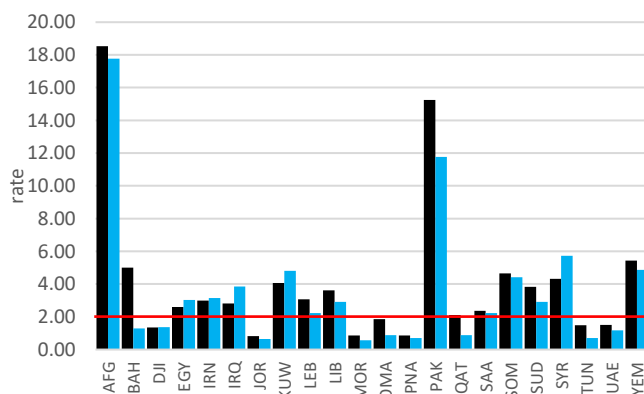


Highlights of the week

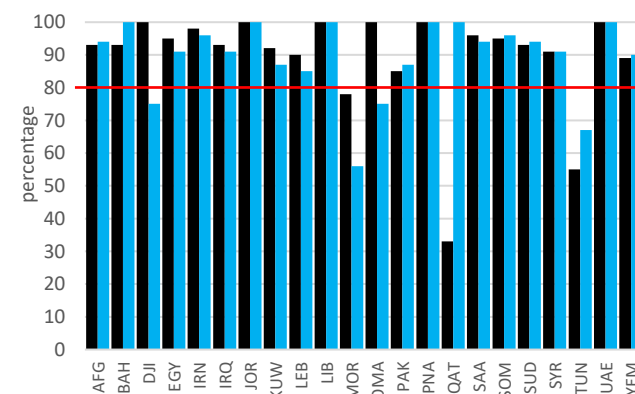
- No new WPV type-1 or circulating VDPV isolates were reported from human or environmental samples. However, one VDPV2 positive environmental sample was reported from Egypt.
- In collaboration with EMR/BOS, Polio is holding a **Regional Meeting on GPEI Operational Planning, 4-6 October 2021**
- The GPEI regional Hub in collaboration with WHO EMRO polio surveillance and data team is finalizing the arrangements of **Pakistan External/Independent Surveillance Review, 9-23 Oct 2021**.
- Polio eradication teams at the Regional and Country levels are contributing to the COVID19 Response, particularly in areas of surveillance, data analysis, communications, and coordination.

Wild Poliovirus type-1 (WPV) Vaccine-derived Poliovirus (VDPV)

Non polio AFP rate

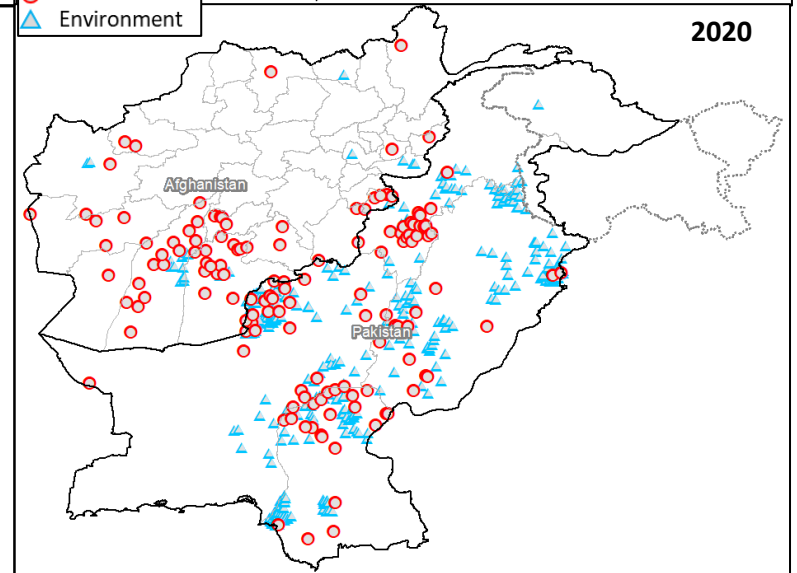
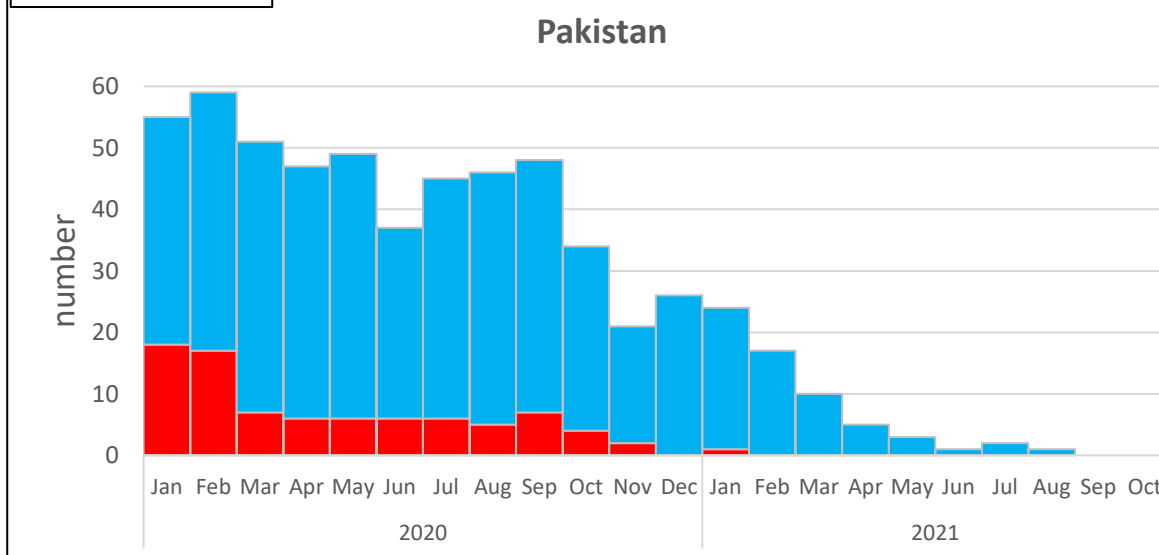
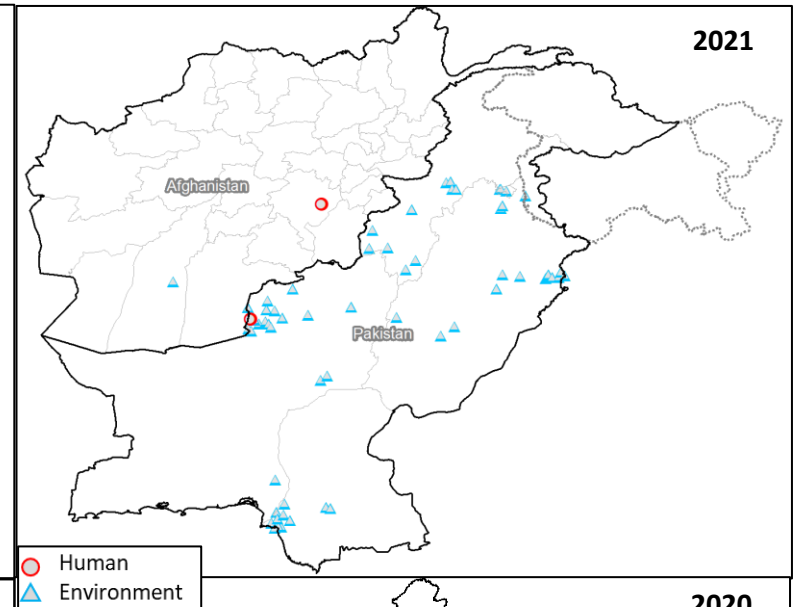
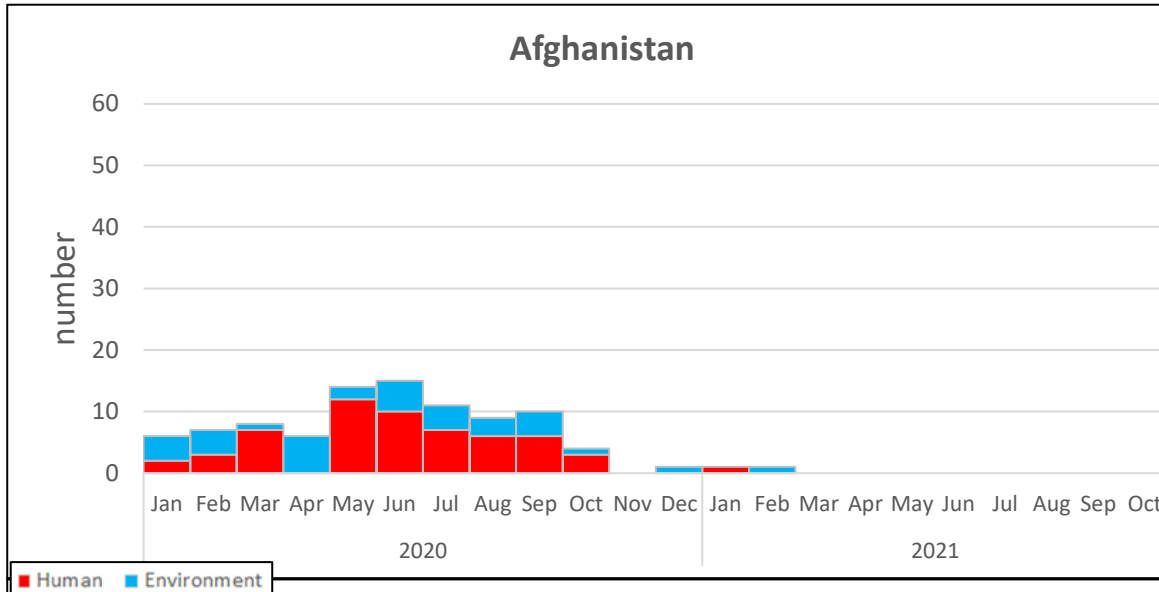


Stool adequacy



WPV1 Positive isolates from AFG/PAK by source

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Virus isolation by country, last 12 months (Sept. 26, 2020 to Sept. 26, 2021)

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Source / Virus type	AFG	PAK	EGY	IRN	SOM	SUD	YEM	Total
Human (AFP only)								
Wild	3	5						8
cVDPV2	171	33			2	13		219
Wild+cVDPV2	1	2						3
Wild+aVDPV2								
Wild+aVDPV3								
cVDPV1							5	5
aVDPV1	1	1						2
aVDPV2	3	7						10
aVDPV3		1						1
VDPV1								
VDPV2								
Environment								
Wild	1	86						87
cVDPV2	96	47	10	4	2	3		162
Wild+cVDPV2	2	41						43
Wild+aVDPV2		6						6
Wild+aVDPV3		1						1
cVDPV1								
aVDPV1		1						1
aVDPV2	4	35		1				40
aVDPV3								
VDPV1			1					1
VDPV2			62					62

Confirmed Wild Polio Cases by month of onset

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Country	Total year 2019	Total year 2020	03-10		Confirmed Wild Polio Cases by month of onset												Last Case
					2020						2021						
			2020	2021	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Afghanistan	29	56	53	1	0	0	1	0	0	0	0	0	0				01-Jan-21
Bahrain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Djibouti	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
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				
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				
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								
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Pakistan	147	84	79	1	2	0	1	0	0	0	0	0					27-Jan-21
Palestine ****	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			
Saudi Arabia	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					
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				
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							
EMR	176	140	132	2	2	0	2	0	0	0	0	0	0	0	0	0	27-Jan-21

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

Investigation of AFP cases with paralysis onset in 2020 & 2021

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COUNTRY	AFP (2020)									AFP (2021)									Line List 2021
	AFP cases	Case classification						Surveillance indicators		AFP cases	Case classification						Surveillance indicators		Date of latest
		Total Confirmed WPV1 Polio Cases	Polio Compatible	Discarded (non polio AFP)	VDPV	Pending classification > 90 days from onset	Pending LAB classification > 90 days from onset	Annualized Non polio AFP rate	% with adequate specimens		Total Confirmed WPV1 Polio Cases	Polio Compatible	Discarded (non polio AFP)	VDPV	Pending classification > 90 days from onset	Pending LAB classification > 90 days from onset	Annualized Non polio AFP rate	% with adequate specimens	
AFGHANISTAN	3972	56	3	3600	314	0	0	18.53	92.60	2900	1	1	2667	45	34	0	17.77	93.76	30-Sep-21
BAHRAIN	15	0	0	15	0	0	0	5.00	93.33	3	0	0	3	0	0	0	1.29	100.00	02-Oct-21
DJIBOUTI	5	0	0	5	0	0	0	1.35	100.00	4	0	0	4	0	0	0	1.37	75.00	26-Sep-21
EGYPT	1009	0	0	1009	0	0	0	2.60	94.65	906	0	0	795	0	6	0	3.03	90.62	30-Sep-21
IRAN	618	0	0	618	0	0	0	2.99	98.54	485	0	0	470	0	0	0	3.15	96.08	02-Oct-21
IRAQ	476	0	0	476	0	0	0	2.81	93.28	506	0	0	469	0	9	0	3.85	90.71	02-Oct-21
JORDAN	32	0	0	32	0	0	0	0.83	100.00	19	0	0	16	0	0	0	0.64	100.00	23-Sep-21
KUWAIT	36	0	0	36	0	0	0	4.06	91.67	32	0	0	29	0	0	0	4.82	87.50	26-Sep-21
LEBANON	49	0	0	49	0	0	0	3.07	89.80	27	0	0	22	0	3	0	2.24	85.19	01-Oct-21
LIBYA	95	0	0	94	1	0	0	3.62	100.00	57	0	0	56	0	0	0	2.91	100.00	01-Oct-21
MOROCCO	87	0	0	87	0	0	0	0.86	78.16	43	0	0	12	0	25	9	0.58	55.81	18-Sep-21
OMAN	22	0	0	22	0	0	0	1.85	100.00	8	0	0	8	0	0	0	0.88	75.00	29-Sep-21
PAKISTAN	11972	84	29	11719	142	0	0	15.25	85.43	8971	1	3	8174	17	108	0	11.77	87.17	02-Oct-21
PALESTINE	16	0	0	16	0	0	0	0.87	100.00	10	0	0	4	0	0	0	0.71	100.00	26-Sep-21
QATAR	9	0	0	9	0	0	0	2.11	33.33	3	0	0	2	0	0	0	0.89	100.00	26-Sep-21
SAUDI ARABIA	200	0	0	200	0	0	0	2.37	96.00	142	0	0	98	0	1	0	2.24	93.66	30-Sep-21
SOMALIA	376	0	0	361	15	0	0	4.66	94.68	276	0	0	217	0	1	0	4.41	96.01	02-Oct-21
SUDAN	733	0	0	675	58	0	0	3.84	92.91	429	0	0	371	0	6	0	2.91	94.41	30-Sep-21
SYRIA	343	0	0	343	0	0	0	4.32	90.96	333	0	0	294	0	0	0	5.73	91.29	02-Oct-21
TUNISIA	42	0	0	42	0	0	0	1.49	54.76	15	0	0	14	0	0	0	0.70	66.67	01-Oct-21
U.A.E.	19	0	0	19	0	0	0	1.52	100.00	13	0	0	2	0	7	0	1.17	100.00	26-Sep-21
YEMEN	825	0	1	794	31	0	0	5.44	88.73	568	0	0	292	3	109	101	4.86	90.32	02-Oct-21
EMR	20951	140	33	20221	561	0	0	7.96	88.59	15750	2	4	14019	65	309	110	7.28	89.55	

* 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

****Includes all VDPV cases. Further details available page number

For further details on Contacts click: [detail of contact samples](#)

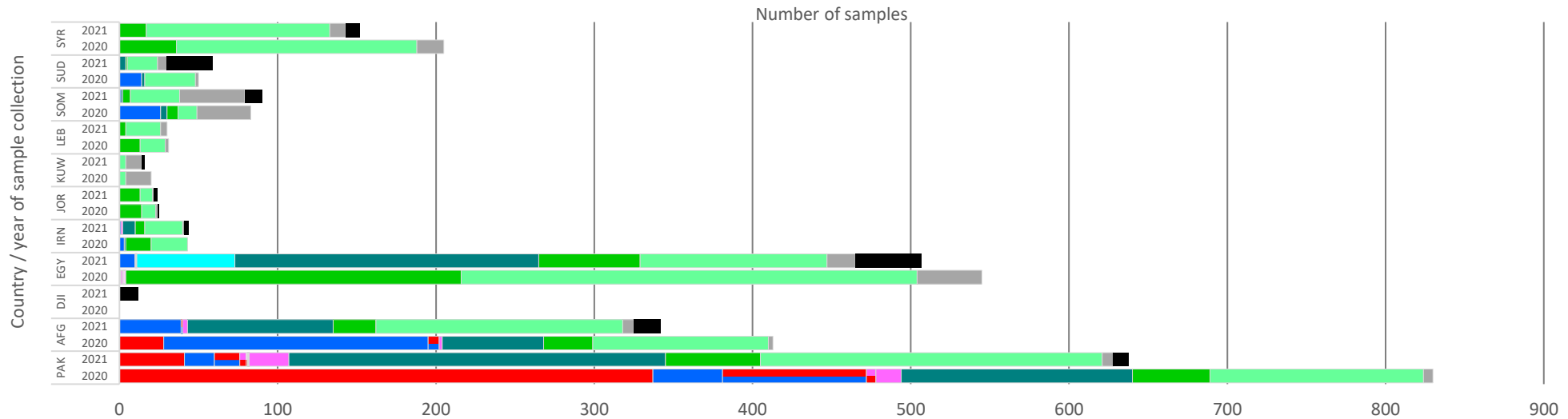
Laboratory investigation of AFP cases with paralysis onset in 2021

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Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators				Latest report Date	
	ITD / Nucleotide Sequencing		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**
	Sequencing performed by CDC and RIVM laboratories		L20B+	L20B+/NPEV			received within last 14 days	received more than 14 days ago	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV									
Afghanistan	RRL Pakistan	2878	229	34	525	1969	105	1	1	107	1		71	40		98			4			16%	99%	99%	98%	2-Oct-21
Bahrain	NPL Oman / CDC	3				3															0%	100%		0%	27-Sep-21	
Djibouti	NPL Kenya / CDC	4			1																100%			100%	26-Sep-21	
Egypt***	RRL Egypt	898	61	3	107	683	38	6		3			58			2			2		11%	97%	100%	99%	30-Sep-21	
Iran	NPL Iran / CDC	491	12		4	468	4	3		3			6			3					1%	100%	100%	98%	2-Oct-21	
Iraq	NPL Iraq, RRL Egypt	500	8		36	442	14			3						15					8%	100%	50%	97%	1-Oct-21	
Jordan	NPL Jordan, RRL Egypt	19			2	14	3														13%	100%		100%	26-Sep-21	
Kuwait	RRL Kuwait / RIVM	33				33															0%	100%		97%	30-Sep-21	
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	26			1	25															4%	100%			30-Sep-21	
Libya	RRL Tunisia / RIVM	57				56	1														0%	100%		82%	1-Oct-21	
Morocco	NPL Morocco, RRL Tunisia	41			1	39		1													3%	100%		98%	10-Sep-21	
Oman	NPL Oman / CDC	8				8															1%	88%		100%	27-Sep-21	
Pakistan	RRL Pakistan	8789	428	46	1839	6033	426	13	1	173	1		172	13		189	1		6		1	18%	100%	100%	97%	2-Oct-21
Palestine & UNRWA		10				9		1													0%	11%		100%	26-Sep-21	
Qatar	NPL Oman / CDC	3				3															0%	100%		100%	27-Sep-21	
Saudi Arabia	NPL Saudi Arabia / CDC	134	2			124		8								2					0%	94%	50%	97%	19-Sep-21	
Somalia	NPL Kenya / CDC	276	3		35	179	12	46		2						2					16%	4%		80%	2-Oct-21	
Sudan	NPL Sudan / RRL Egypt	424	1		60	315	11	38					1								16%	95%	100%	100%	23-Sep-21	
Syria	NPL Syria / RRL Egypt	324	4		20	273	27														6%	100%		0%	30-Sep-21	
Tunisia	RRL Tunisia	15				14	1														0%	100%		100%	1-Oct-21	
U.A.E	NPL Oman / CDC	12				12															0%	100%		42%	27-Sep-21	
Yemen	NPL Oman, NPL Kenya, RRL Egypt	282	9		58	215				1	3					5					16%	100%	100%	0%	2-Oct-21	
Total EMR 2021		15227	757	83	2689	10917	642	117	2	292	5		308	53		316	1		10	2	1	15%	98%	98%	95%	
Total EMR 2020		20387	1680	93	3046	15557		4	129	352	32		509	468		462	2	3	18	11		14%	94%	97%	93%	

Environmental Surveillance Isolation by Classification

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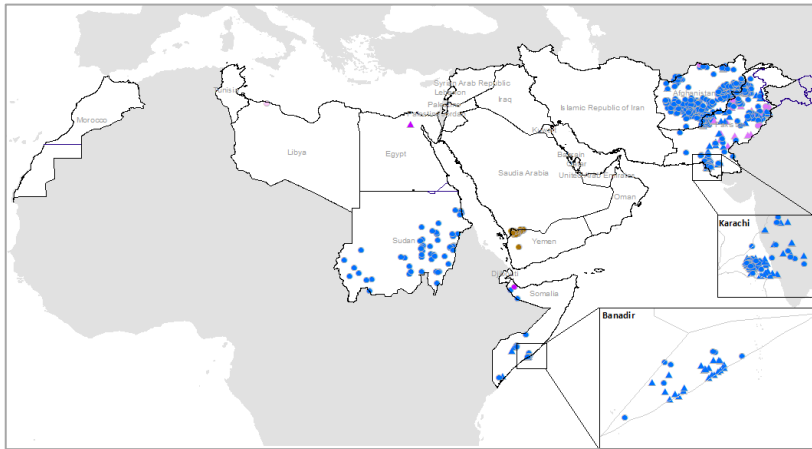


	PAK		AFG		DJI		EGY		IRN		JOR		KUW		LEB		SOM		SUD		SYR	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Wild	337	41	28																			
cVDPV2	44	19	167	39				10	3	1							26	1	14			
Wild+cVDPV2	91	16	7	1																		
Wild+aVDPV2	6	4																				
Wild+aVDPV3		1																				
aVDPV1		1					1															
aVDPV2	16	25	2	3			1			1												
aVDPV3							2															
VDPV1								1														
VDPV2								62														
SL2	146	238	64	92				192	1	8							4	1	2	4		
SL1/3	49	60	31	27			212	64	16	6	14	13			13	4	7	5		1	36	17
Entero	135	216	111	156			288	118	23	24	9	8	4	4	16	22	12	31	32	19	152	116
Negative	6	7	3	7			41	18		1	1	1	16	10	2	4	34	41	2	6	17	10
Pending		10		17		12		42		3	1	2		2				11		29		9

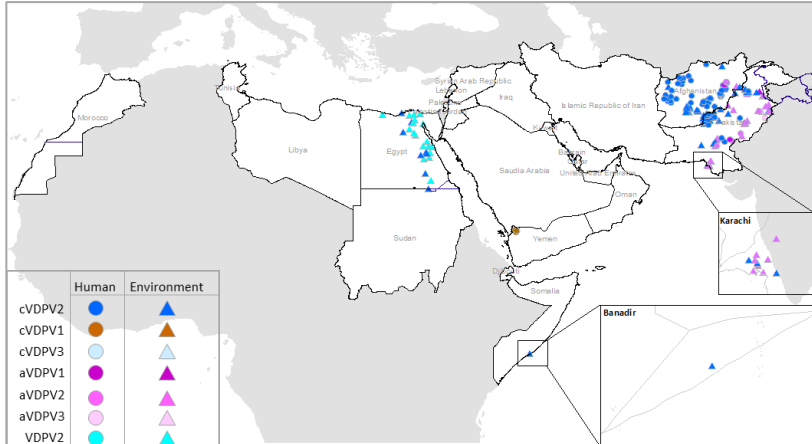
VDPVs isolations by Source and Country

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VDPV Isolates, EMR countries, 2020



VDPV Isolates, EMR countries, 2021



VDPVs isolated from 2016-2021

cVDPV Isolate type	EMR Country	Sources																											
		AFP cases(Human)						Contacts(Human)						Environment						Other Sources (Healthy Children)									
		2016	2017	2018	2019	2020	2021	Most recent	2016	2017	2018	2019	2020	2021	Most recent	2016	2017	2018	2019	2020	2021	Most recent	2016	2017	2018	2019	2020	2021	Most recent
cVDPV2	Afghanistan				307	43	09-07-21												174	40	23-06-21								
	Egypt																			10	08-06-21								
	Iran																		3	1	20-02-21								
	Pakistan	1			22	135	8	23-04-21								4			38	135	35	11-08-21							
	Somalia			6	3	14		25-10-20			3	1	11		10-11-20		2	19	5	26	1	23-05-21				1	5		22-09-20
	Sudan					58		18-12-20					18		08-10-20					14		09-11-20					4		24-08-21
	Syria		74					21-09-17	63						12-09-17									4					20-08-17
cVDPV1	Yemen				1	31	3	27-03-21				2		10-07-19															
cVDPV3	Somalia			7				07-09-18		7				30-06-18			12				23-08-18								
aVDPV1	Afghanistan						1	22-02-21																					
	Egypt																		1		17-06-20								
	Pakistan																			1	10-02-21								
	Somalia					1		26-01-20																					
aVDPV2	Afghanistan	1				3	1	01-03-21					75	15	03-05-21					2	3	25-07-21							
	Egypt																			1		21-09-21							
	Pakistan					7	5	23-05-21				8	19	1	28-04-21	3	5		3	22	29	10-08-21							
	Somalia	1						24-10-16	1						30-10-16			2	1			03-02-19							
	Yemen	1						11-06-16	2						20-06-16														
aVDPV3	Afghanistan					1		23-06-20																					
	Egypt																		2		30-09-20								
	Pakistan						1	15-06-21												1	05-04-21								
	Libya					1		15-01-20																					
VDPV2	Egypt															1				62	08-09-21								
	Pakistan															1					11-07-16								

Important links

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- [Global Polio Eradication Initiative](#)
- [IMST – Outbreak Response Dashboard](#)
- [nOPV2 Tracker](#)
- [Pol-MIS](#) (restricted to registered users)
- [Containment](#) (restricted to registered users)