

EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1227, Week 14 (ending on 10/04/2022)

Highlights



Children
Paralyzed
by polio

2021

05 cases of Wild Polio 1

- 04 in Afghanistan
- 01 in Pakistan

100 cases of cVDPV2

- 43 in Afghanistan
- 08 in Pakistan
- 01 in Somalia
- 48 in Yemen

03 cVDPV1 cases

- All in Yemen

2022

01 case of Wild Polio 1

- 01 in Afghanistan

01 case of cVDPV2

- 01 in Somalia

Zero case of cVDPV1

(No cVDPV1 for the last ten months)



Sewage
water
sampling

2021

66 samples Wild Polio 1

- 01 in Afghanistan
- 65 in Pakistan

94 samples cVDPV2

- 40 in Afghanistan
- 35 in Pakistan
- 12 in Egypt
- 01 in Iran
- 01 in Somalia
- 05 in Djibouti

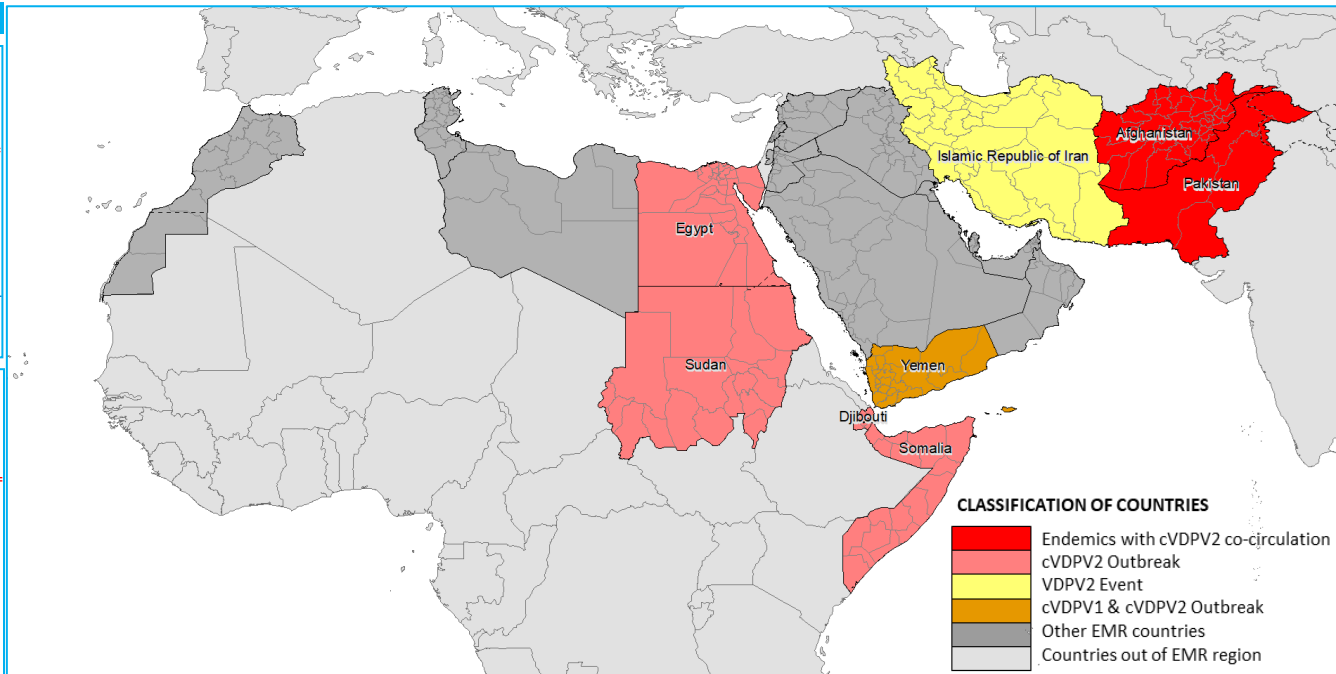
2022

No sample positive for Wild Polio 1

(No WPV1 for the last 4 months)

2 samples cVDPV2

- 02 in Egypt

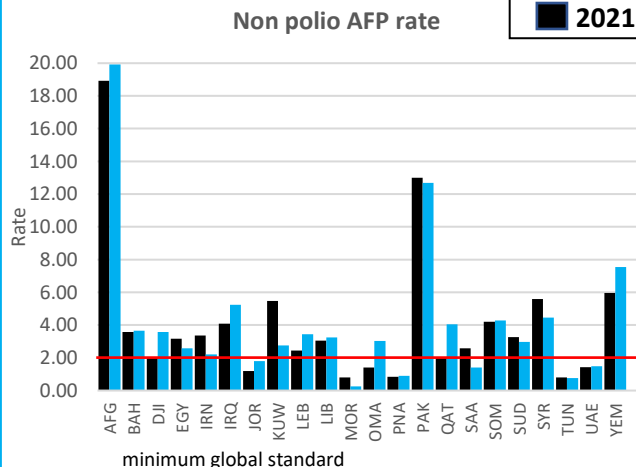


Highlights of the week

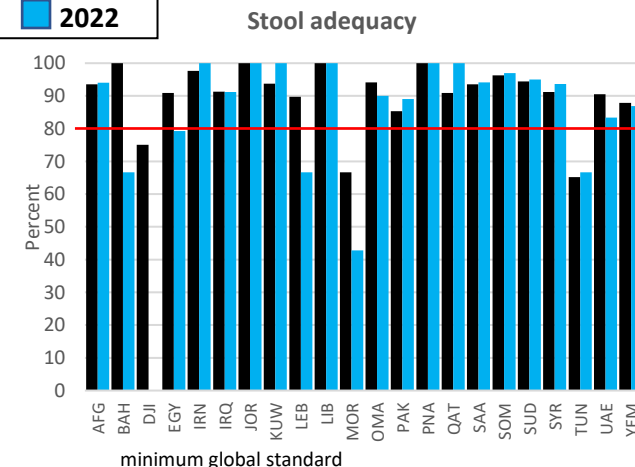
- No new wild poliovirus isolates from human or environmental samples reported this week.
- Yemen: 15 new cVDPV2 cases were confirmed this week from nine provinces with dates of onset varies between 19 November to 19 December 2021. Total cVDPV2 cases from Yemen so far 48; all in 2021.
- Somalia and Djibouti: PV2 isolates pending for sequencing from environmental samples from both countries, and from human samples (AFP, contacts) from Somalia
- GPEI Hub for Afghanistan and Pakistan convened its retreat meeting on 5 and 6 April 2022 in Amman to review progress and strategize priorities for next six months.

Wild Poliovirus type-1 (WPV1) Vaccine-derived Poliovirus (VDPV)

Non polio AFP rate

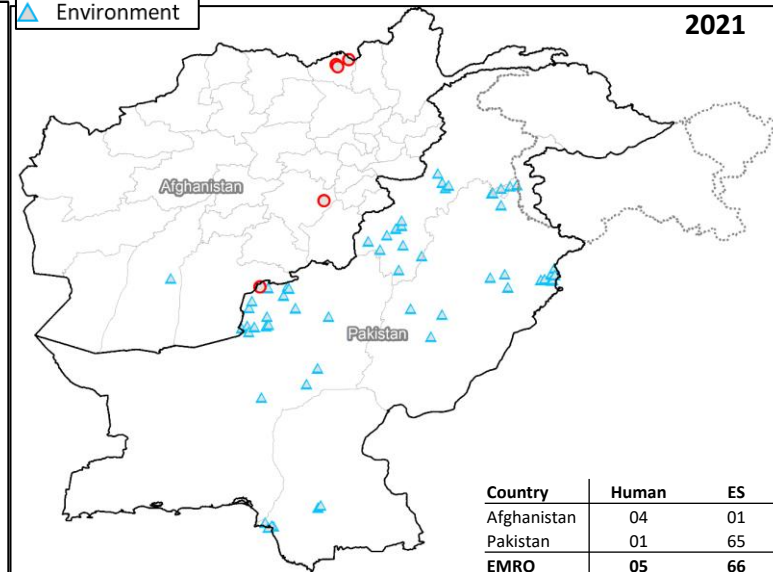
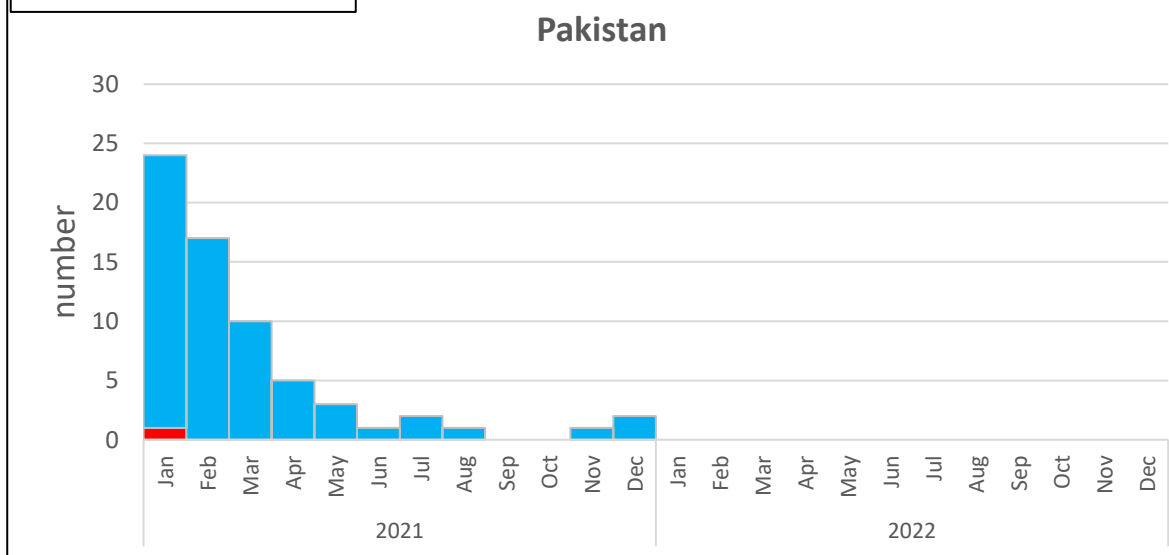
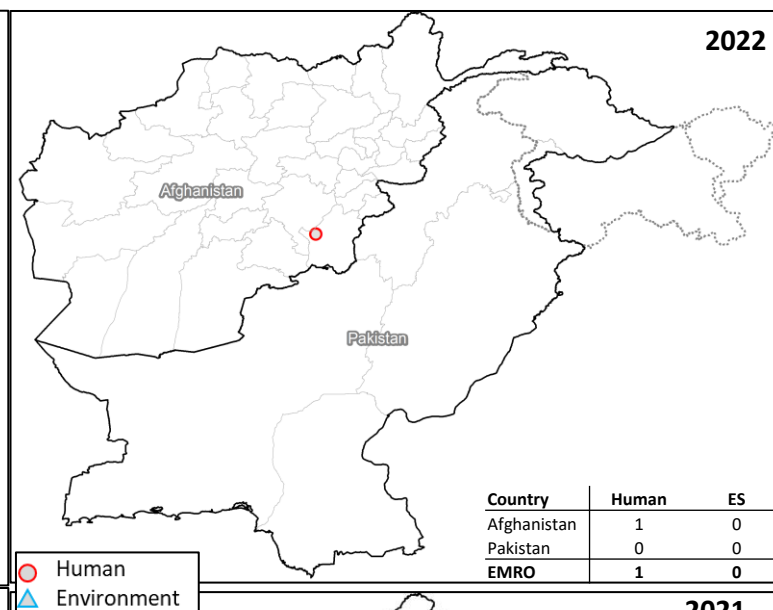
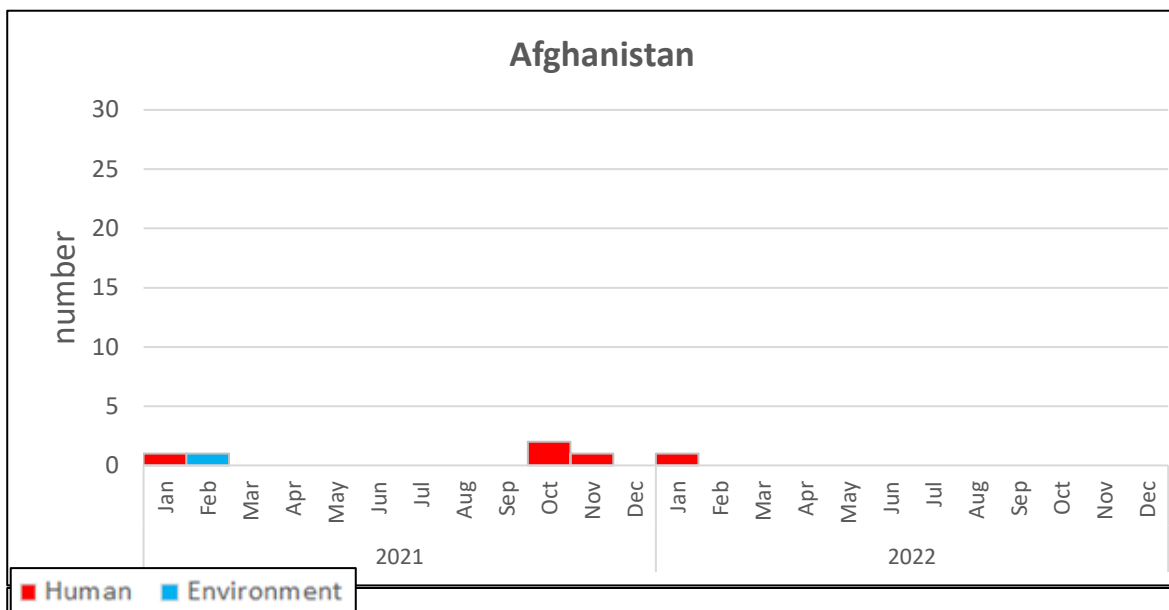


Stool adequacy



WPV1 Positive isolates from Afghanistan and Pakistan by source

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Virus isolation by country, last 12 months (Apr. 10, 2021 to Apr. 10, 2022)

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Source / Virus type	AFG	DJI	PAK	EGY	IRN	SOM	YEM	Total
Human (AFP only)	12		3	1		2	51	69
Wild	4							4
cVDPV2	7		1			2	47	57
Wild+cVDPV2								
aVDPV2	1		2	1				4
VDPV1								
VDPV2							3	3
cVDPV2+aVDPV1							1	1
Environment	4	5	37	78	3	1		128
Wild			11					11
cVDPV2	3	5	4	5		1		18
Wild+cVDPV2			1					1
aVDPV2	1		20		2			23
VDPV1				1				1
VDPV2			1	72	1			74
cVDPV2+aVDPV1								
Total	16	5	40	79	3	3	51	197

Note: Viruses isolated from 'other' sources (example healthy children) are not included in this analysis; they are shown in page No. (8)

Confirmed Wild Polio 1 Cases by month of onset

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Country	Total year 2020	Total year 2021	3 April		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2021						2022						
			2021	2022	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Afghanistan	56	4	1	1	0	0	0	0	0	2	1	0	1				14-Jan-22
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				
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	0	0			
Morocco	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	84	1	1	0	0	0	0	0	0	0	0	0	0				27-Jan-21
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			
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	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					
Yemen	0	0	0	0	0	0	0	0	0	0	0						
EMR	140	5	2	1	0	0	0	0	0	2	1	0	1	0	0	0	14-Jan-22

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

Investigation of AFP cases with paralysis onset in 2021 & 2022

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COUNTRY	2021									2022									Line List
	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	4088	4	1	4020	45	18	0	18.92	93.52	1181	1	0	902	0	5	0	19.90	93.99	10-Apr-22
BAHRAIN	11	0	0	11	0	0	0	3.58	100.00	3	0	0	0	0	0	0	3.66	66.67	10-Apr-22
DJIBOUTI	8	0	0	4	0	4	3	2.06	75.00	4	0	0	0	0	0	0	3.58	0.00	3-Apr-22
EGYPT	1251	0	0	1238	1	12	1	3.17	90.89	280	0	0	240	0	1	0	2.59	79.29	7-Apr-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	122	0	0	112	0	0	0	2.20	100.00	9-Apr-22
IRAQ	709	0	0	709	0	0	0	4.08	91.26	249	0	0	192	0	2	0	5.23	91.16	9-Apr-22
JORDAN	47	0	0	47	0	0	0	1.19	100.00	20	0	0	16	0	0	0	1.80	100.00	7-Apr-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	7	0	0	5	0	0	0	2.76	100.00	10-Apr-22
LEBANON	39	0	0	39	0	0	0	2.45	89.74	15	0	0	6	0	0	0	3.44	66.67	10-Apr-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	23	0	0	17	0	0	0	3.24	100.00	9-Apr-22
MOROCCO	78	0	0	78	0	0	0	0.80	66.67	7	0	0	0	0	2	1	0.26	42.86	8-Apr-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	10	0	0	8	0	0	0	3.04	90.00	10-Apr-22
PAKISTAN	13102	1	4	13062	18	17	0	12.99	85.29	3505	0	0	2586	0	41	0	12.69	88.99	10-Apr-22
PALESTINE	16	0	0	16	0	0	0	0.85	100.00	5	0	0	0	0	1	0	0.91	100.00	10-Apr-22
QATAR	11	0	0	11	0	0	0	2.03	90.91	5	0	0	0	0	0	0	4.05	100.00	10-Apr-22
SAUDI ARABIA	217	0	0	217	0	0	0	2.59	93.55	34	0	0	0	0	5	0	1.40	94.12	3-Apr-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	97	0	0	75	1	0	0	4.27	96.91	10-Apr-22
SUDAN	637	0	0	637	0	0	0	3.26	94.35	159	0	0	134	0	0	0	2.98	94.97	7-Apr-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	94	0	0	62	0	0	0	4.46	93.62	9-Apr-22
TUNISIA	23	0	0	23	0	0	0	0.81	65.22	6	0	0	5	0	0	0	0.76	66.67	8-Apr-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	6	0	0	0	0	0	0	1.49	83.33	30-Mar-22
YEMEN	921	0	0	837	54	31	16	5.96	87.84	319	0	0	72	0	14	11	7.55	86.83	10-Apr-22
EMR POL	22784	5	5	22573	120	82	20	7.96	88.40	6151	1	0	4432	1	71	12	7.83	89.99	

* 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, with 14 days of paralysis onset and specimens received in the lab in 'Good Condition'

**** Includes all VDPV cases. Further details available in page (8)

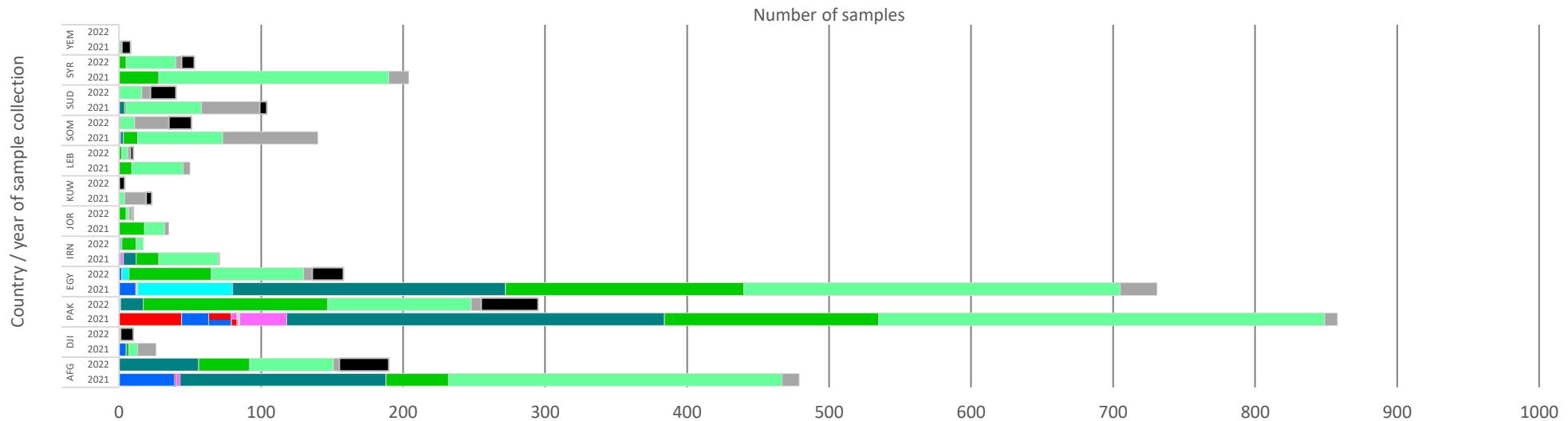
Laboratory investigation of AFP cases with paralysis onset in 2022

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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	1146	78	9	151	701	182		1	49			7			60					1	13%	93%	100%	99%	10-Apr-22	
Bahrain	NPL Oman / CDC	3				3																0%	100%		100%	7-Apr-22	
Djibouti	NPL Kenya / CDC	4						4																		3-Apr-22	
Egypt***	RRL Egypt	330	7	1	41	254	26	1		1						4			1	1	1	11%	98%	100%	100%	7-Apr-22	
Iran	NPL Iran / CDC	126	2		1	110	11	2		1	1					2						0%	100%	100%	100%	3-Apr-22	
Iraq	NPL Iraq, RRL Egypt	254	1		12	208	31	2								2						6%	100%	50%	100%	9-Apr-22	
Jordan	NPL Jordan, RRL Egypt	20			3	14	3															18%	100%		100%	10-Apr-22	
Kuwait	RRL Kuwait / RIVM	6				4	2															0%	100%		100%	10-Apr-22	
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	7				7																0%	100%			3-Apr-22	
Libya	RRL Tunisia / RIVM	25				21	4															0%	100%		100%	8-Apr-22	
Morocco	NPL Morocco, RRL Tunisia	11				5	5	1														0%	100%		100%	8-Apr-22	
Oman	NPL Oman / CDC	12			1	9	2															7%	80%		100%	7-Apr-22	
Pakistan	RRL Pakistan	3479	149	18	420	2254	482	160		73			1			116					17	11%	96%	99%	97%	10-Apr-22	
Palestine & UNRWA		5				4	1															0%	0%		75%	10-Apr-22	
Qatar	NPL Oman / CDC	5	1			3	1			1												0%	75%	0	100%	7-Apr-22	
Saudi Arabia	NPL Saudi Arabia / CDC	46				38	3	5														0%	97%		100%	4-Apr-22	
Somalia	NPL Kenya / CDC	97	1		15	64	1	19		1												19%	10%		100%	10-Apr-22	
Sudan	NPL Sudan / RRL Egypt	161			32	108	21															22%	87%			9-Apr-22	
Syria	NPL Syria / RRL Egypt	80	2		3	63	10	2														3%	100%			3-Apr-22	
Tunisia	RRL Tunisia	6				5	1															0%	100%		100%	8-Apr-22	
U.A.E	NPL Oman / CDC	6				6																0%	100%		83%	7-Apr-22	
Yemen	NPL Oman, NPL Kenya, RRL Egypt	142	38		11	65		30		1		21				1					16	13%	99%	14%	1%	10-Apr-22	
Total EMR 2022		5971	279	28	690	3946	786	226	1	127	1	21	8			185			1	1	35	11%	94%	92%	96%		
Total EMR 2021		22105	1182	128	3869	16912		11	5	477	7	29	363	91		599	1	1	7	2	4	14%	97%	97%	93%		

Environmental Surveillance Isolation by Classification

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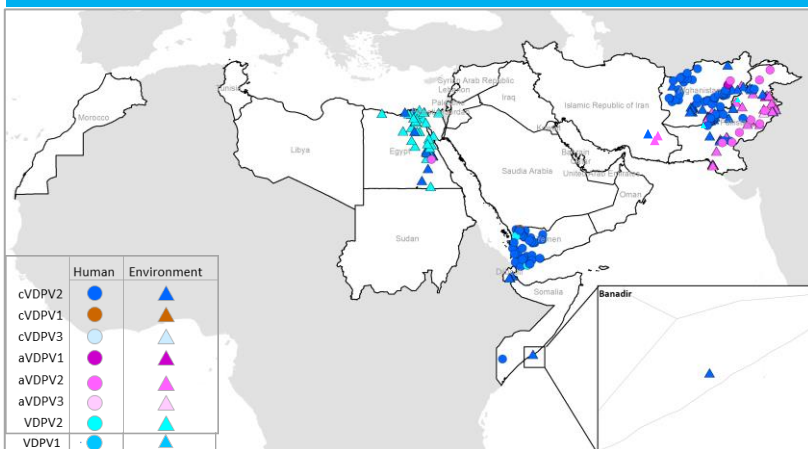


	AFG		DJI		PAK		EGY		IRN		JOR		KUW		LEB		SOM		SUD		SYR		YEM	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Wild					44																			
cVDPV2	39		5		19		12	2	1								1							
Wild+cVDPV2	1				16																			
Wild+aVDPV2					4																			
Wild+aVDPV3					1																			
aVDPV1					1																			
aVDPV2	3				33				2															
aVDPV3																								
VDPV1							1																	
VDPV2						1	67	5		1														
SL2	145	56			266	16	192		9	1							2		4					
SL1/3	44	36	2		151	130	168	58	16	10	18	5			9	2	10	1	1		28	5	1	
Entero	235	59	6		314	101	265	65	42	5	14	2	4		36	4	60	10	53	16	162	35	1	
Negative	12	4	13	1	9	7	26	6	1		3	2	15		5	2	67	24	41	6	14	4		
Pending		35		9		40		22				1	4	4		2		16	5	18		9	6	

VDPVs isolations by Source and Country

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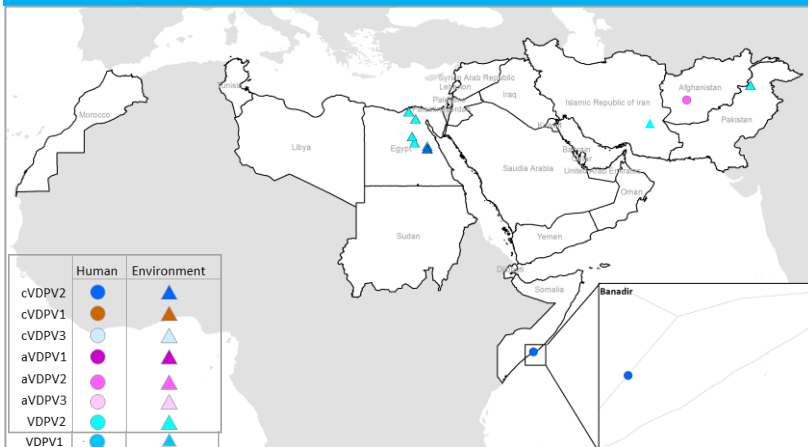
VDPV Isolates, EMR countries, 2021



VDPVs isolated from 2017-2022

VDPV Isolate type	EMR Country	Sources																											
		AFP cases(Human)						Contacts(Human)						Environment						Other Sources (Healthy Children)									
		2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent
cVDPV2	Afghanistan				307	43		09-07-21											174	40		23-06-21							
	Djibouti																		5			28-12-21							
	Egypt																		12	2		09-03-22							
	Iran																		3	1		20-02-21							
	Pakistan			22	135	8		23-04-21										38	135	35		11-08-21							
	Somalia		6	3	14	1	1	01-01-22	3	1	11		1	05-01-22	2	19	5	26	1		23-05-21				1	5			
	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
Yemen					48		19-Dec-21					19	26-12-21																
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			16-07-20								
	Pakistan																		1		10-02-21								
	Somalia				1			26-01-20																					
	Yemen					1		20-07-21																					
aVDPV2	Afghanistan				3	1	1	01-01-22			75	15	1	14-02-22				2	3		25-07-21								
	Egypt					1		30-05-21				1		14-06-21				1			21-09-21								
	Iran																		2		28-09-21								
	Pakistan				7	8		24-09-21			8	19	1	28-04-21	5		3	22	37		06-12-21								
	Somalia															2	1				03-02-19								
aVDPV3	Afghanistan				1			23-06-20																					
	Egypt																	2			30-09-20								
	Pakistan																		1		05-04-21								
	Libya				1			15-01-20																					
VDPV1	Egypt																	1			11-07-21								
VDPV2	Egypt																	67	2		07-03-22								
	IRAN																			1	04-02-22								
	Pakistan																			1	15-02-22								
	Yemen					3		01-11-21				1		09-12-21															

VDPV Isolates, EMR countries, 2022



Important links

EMR Polio Bulletin - Issue No. 1227, Week 14 (ending on 10/04/2022)

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