

EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1219, Week 06 (ending on 13/02/2022)

Highlights



Children
Paralyzed
by polio

2021

- 05 cases of Wild Polio 1
 - 04 in Afghanistan
 - 01 in Pakistan

- 63 cases of cVDPV2
 - 43 in Afghanistan
 - 08 in Pakistan
 - 01 in Somalia
 - 11 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

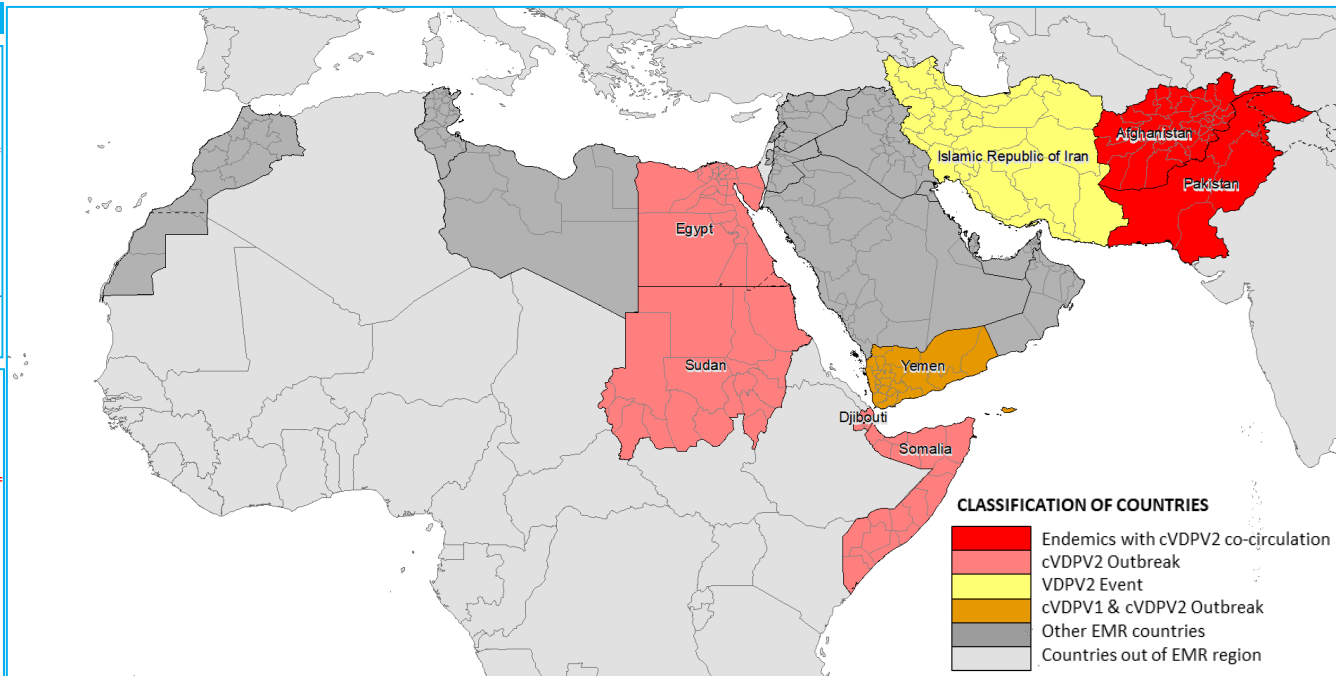
- 66 samples Wild Polio 1
 - 01 in Afghanistan
 - 65 in Pakistan

- 93 samples cVDPV2
 - 40 in Afghanistan
 - 35 in Pakistan
 - 11 in Egypt
 - 01 in Iran
 - 01 in Somalia
 - 05 in Djibouti

2022

- No sample positive for Wild Polio 1
(No WPV1 for the last 2 months)

- No sample positive for cVDPV2
(No cVDPV2 for the last 3 months)

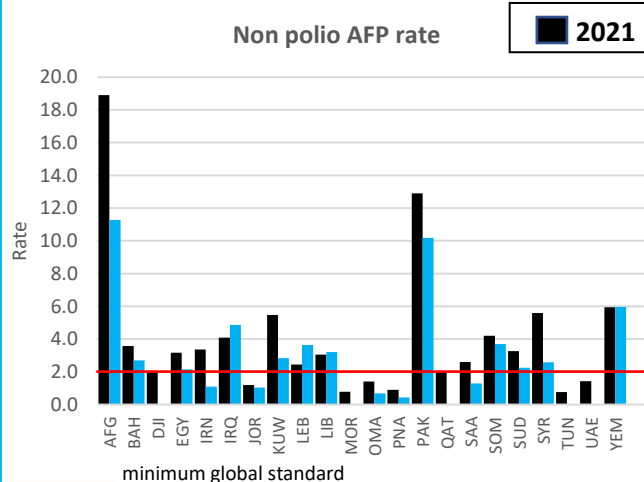


Highlights of the week

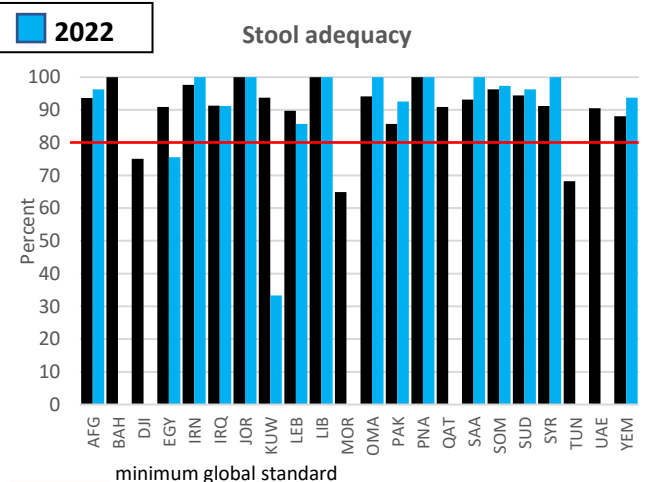
- No wild poliovirus isolates from human or environment was reported this week.
- Somalia: The first cVDPV2 case reported in 2022 was from Daynile district, Banadir province, with date of onset 1st January 2022. The index case was negative but was identified by a positive contact.
- Djibouti: Two new cVDPV2 positive environmental samples were reported this week in 2021. One from Djibouti province and the other from Arta province, both with specimens collection on 28th December 2021.

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

Non polio AFP rate

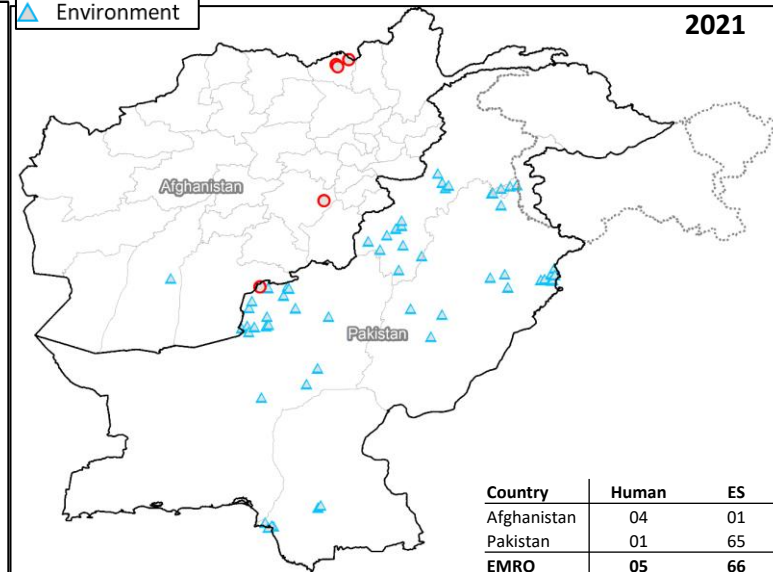
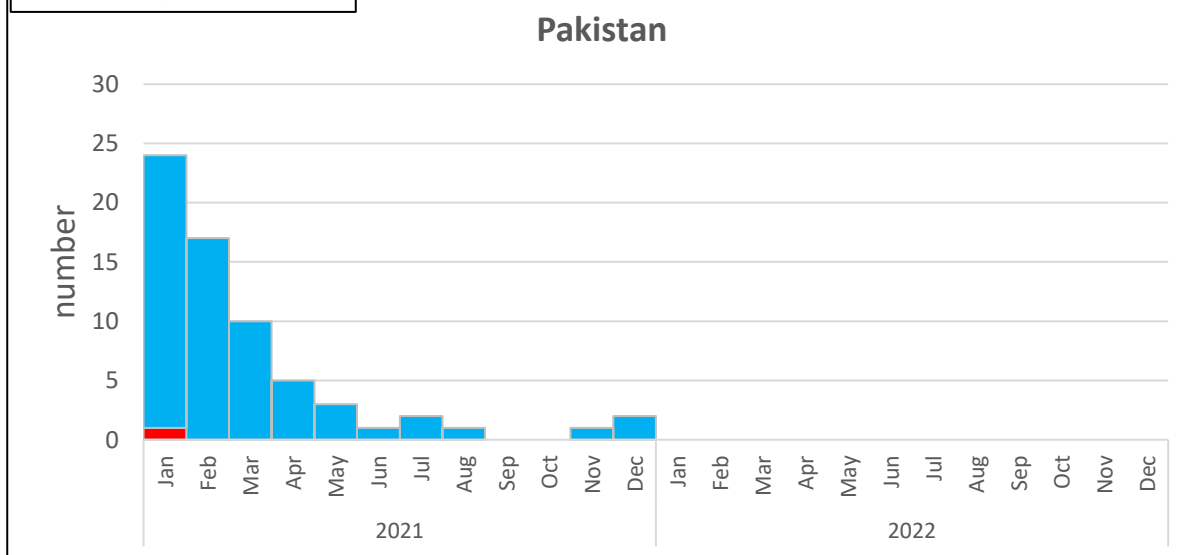
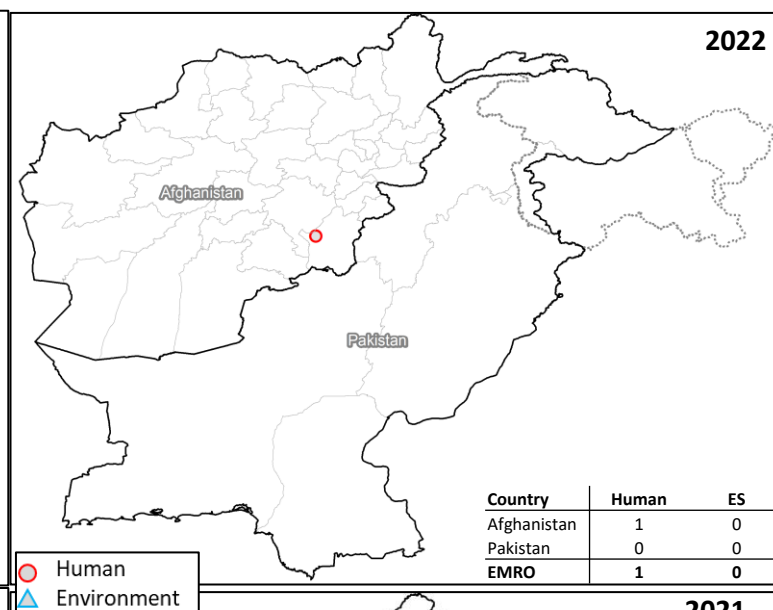
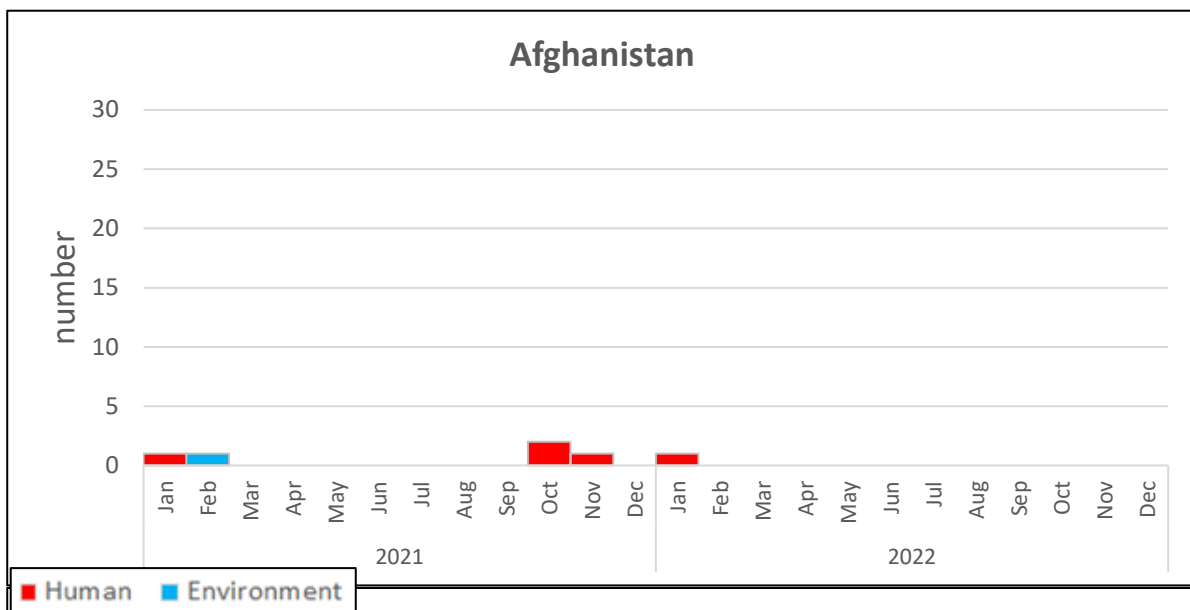


Stool adequacy



WPV1 Positive isolates from Afghanistan and Pakistan by source

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Virus isolation by country, last 12 months (Feb. 13, 2021 to Feb. 13, 2022)

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Source / Virus type	AFG	DJI	PAK	EGY	IRN	SOM	YEM	Total
Human (AFP only)	30		6	1		2	14	53
Wild	4							4
cVDPV2	24		2			2	11	39
Wild+cVDPV2								
Wild+aVDPV3								
cVDPV1							2	2
aVDPV1	1						1	2
aVDPV2	1		4	1				6
VDPV1								
VDPV2								
Environment	22	5	75	73	3	1		179
Wild			24					24
cVDPV2	19	5	12	3	1	1		41
Wild+cVDPV2	1		7					8
Wild+aVDPV3			1					1
cVDPV1								
aVDPV1								
aVDPV2	2		31		2			35
VDPV1				1				1
VDPV2				69				69
Total	52	5	81	74	3	3	14	232

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	30-01		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case	
					2021						2022							
			2021	2022	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb		
Afghanistan	56	4	1	1	0	0	0	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	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	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	0		
Lebanon *****	0	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	0			
Morocco	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	0			
Pakistan	84	1	1	0	0	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	0	0		
Qatar	0	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	0			
Somalia	0	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	0			
Tunisia	0	0	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	0	0		
Yemen	0	0	0	0	0	0	0	0	0	0	0							
EMR	140	5	2	1	0	0	0	0	0	0	0	0	2	1	0	1		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	4082	4	1	3968	45	36	0	18.90	93.61	294	1	0	122	0	0	0	11.27	96.26	6-Feb-22
BAHRAIN	11	0	0	8	0	0	0	3.58	100.00	1	0	0	0	0	0	0	2.70	0.00	6-Feb-22
DJIBOUTI	8	0	0	4	0	0	0	2.06	75.00	0	0	0	0	0	0	0	0.00		12-Dec-21
EGYPT	1251	0	0	1225	1	2	0	3.17	90.89	102	0	0	38	0	0	0	2.15	75.49	12-Feb-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	28	0	0	8	0	0	0	1.11	100.00	12-Feb-22
IRAQ	709	0	0	695	0	6	0	4.08	91.26	102	0	0	53	0	0	0	4.87	91.18	12-Feb-22
JORDAN	47	0	0	44	0	0	0	1.19	100.00	5	0	0	3	0	0	0	1.05	100.00	10-Feb-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	3	0	0	1	0	0	0	2.84	33.33	13-Feb-22
LEBANON	39	0	0	36	0	3	0	2.45	89.74	7	0	0	0	0	0	0	3.65	85.71	5-Feb-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	10	0	0	0	0	0	0	3.20	100.00	12-Feb-22
MOROCCO	77	0	0	36	0	28	7	0.78	64.94	0	0	0	0	0	0	0	0.00		14-Jan-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	1	0	0	0	0	0	0	0.69	100.00	1-Feb-22
PAKISTAN	13045	1	4	12793	18	55	0	12.94	85.67	1236	0	0	685	0	0	0	10.19	92.56	13-Feb-22
PALESTINE	16	0	0	10	0	2	0	0.85	100.00	1	0	0	0	0	0	0	0.44	100.00	13-Feb-22
QATAR	11	0	0	9	0	0	0	2.03	90.91	0	0	0	0	0	0	0	0.00		13-Feb-22
SAUDI ARABIA	218	0	0	195	0	0	0	2.60	93.12	13	0	0	0	0	0	0	1.29	100.00	13-Feb-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	37	0	0	11	1	0	0	3.71	97.30	13-Feb-22
SUDAN	637	0	0	626	0	7	0	3.26	94.35	53	0	0	16	0	0	0	2.26	96.23	10-Feb-22
SYRIA	431	0	0	429	0	0	0	5.60	91.18	24	0	0	7	0	0	0	2.59	100.00	12-Feb-22
TUNISIA	22	0	0	22	0	0	0	0.77	68.18	0	0	0	0	0	0	0	0.00		11-Feb-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	0	0	0	0	0	0	0	0.00		8-Feb-22
YEMEN	919	0	0	634	15	94	77	5.95	88.03	111	0	0	0	0	0	0	5.97	93.69	12-Feb-22
EMR POL	22718	5	5	21927	81	233	84	7.94	88.64	2028	1	0	944	1	0	0	5.88	92.55	

* 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, 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)

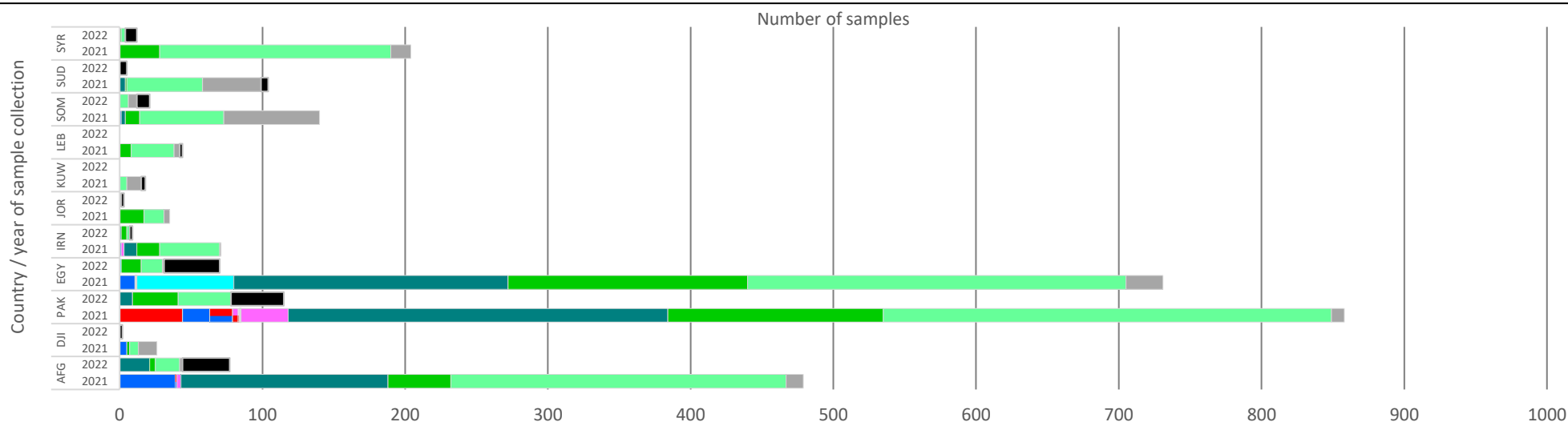
Laboratory investigation of AFP cases with paralysis onset in 2022

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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	366	25	2	31	164	120		1	10			4			18					1	11%	100%	100%	100%	13-Feb-22
Bahrain	NPL Oman / CDC	1					1																			10-Feb-22
Djibouti	NPL Kenya / CDC																									12-Dec-21
Egypt***	RRL Egypt	101	1		5	33	47	15										1				12%	100%	100%	100%	10-Feb-22
Iran	NPL Iran / CDC	47	1		1	36	9								1							1%	100%	100%	100%	12-Feb-22
Iraq	NPL Iraq, RRL Egypt	104			3	63	38															4%	100%		100%	12-Feb-22
Jordan	NPL Jordan, RRL Egypt	5				4	2															0%	100%		100%	13-Feb-22
Kuwait	RRL Kuwait / RIVM																									6-Feb-22
Lebanon	NPL Jordan, NPL Syria, RRL Egypt																					0%				12-Feb-22
Libya	RRL Tunisia / RIVM	7					7																			10-Feb-22
Morocco	NPL Morocco, RRL Tunisia	1				1																0%	100%		100%	28-Jan-22
Oman	NPL Oman / CDC	6				2	4															9%	100%		100%	10-Feb-22
Pakistan	RRL Pakistan	1220	42	1	121	560	480	21		26			1			25					3	11%	100%	100%	100%	13-Feb-22
Palestine & UNRWA		1				1																0%	0%		100%	13-Feb-22
Qatar	NPL Oman / CDC																									10-Feb-22
Saudi Arabia	NPL Saudi Arabia / CDC	17				14	3															0%	93%		100%	13-Feb-22
Somalia	NPL Kenya / CDC	37			1	10	14	12														9%	9%		100%	13-Feb-22
Sudan	NPL Sudan / RRL Egypt	33			1	5		27														13%	100%			27-Jan-22
Syria	NPL Syria / RRL Egypt	22				7	15															0%	100%			12-Feb-22
Tunisia	RRL Tunisia	3					3																			10-Feb-22
U.A.E	NPL Oman / CDC																									10-Feb-22
Yemen	NPL Oman, NPL Kenya, RRL Egypt																									12-Feb-22
Total EMR 2022		1971	69	3	163	900	743	75	1	36			5			44		1		4	10%	99%	100%	100%		
Total EMR 2021		21938	1128	125	3834	16713	123	17	5	473	7		363	66		585	1	1	7	2	9	14%	97%	99%	94%	

Environmental Surveillance Isolation by Classification

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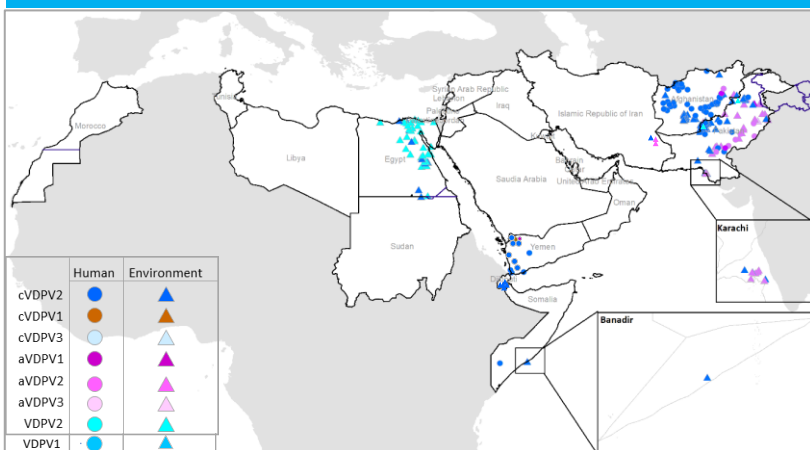


	AFG		DJI		PAK		EGY		IRN		JOR		KUW		LEB		SOM		SUD		SYR	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Wild					44																	
cVDPV2	39		5		19		11		1								1					
Wild+cVDPV2	1				16																	
Wild+aVDPV2					4																	
Wild+aVDPV3					1																	
aVDPV1					1																	
aVDPV2	3				33				2													
aVDPV3																						
VDPV1							1															
VDPV2							68	1														
SL2	145	21			266	9	192		9	1							3		4			
SL1/3	44	4	2		151	32	168	14	16	4	17				8		10		1		28	1
Entero	235	17	6		314	37	265	15	42	2	14		5		30		59	6	53		162	3
Negative	12	2	13		9		26	1	1		4	1	10		4		67	6	41		14	
Pending		33		2		37		39		2		2	3		2			9	5	5		8

VDPVs isolations by Source and Country

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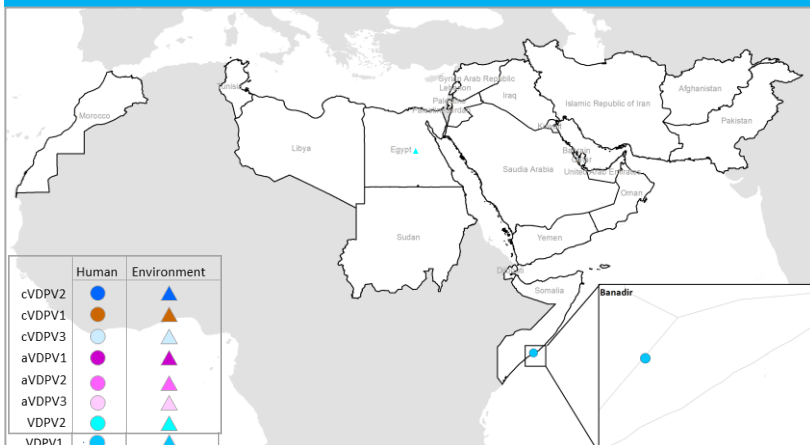
VDPV Isolates, EMR countries, 2020



VDPVs isolated from 2017-2022

cVDPV 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																			11			18-11-21						
	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			10-11-20	2	19	5	26	1		23-05-21				1	5	1	05-01-22
	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					11		15-Oct-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		01-03-21				75	15		03-05-21				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																			68	1	12-01-22							

VDPV Isolates, EMR countries, 2021



Important links

EMR Polio Bulletin - Issue No. 1219, Week 06 (ending on 13/02/2022)

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