

EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1220, Week 07 (ending on 20/02/2022)

Highlights



Children
Paralyzed
by polio

2021

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

- 66 cases of cVDPV2
 - 43 in Afghanistan
 - 08 in Pakistan
 - 01 in Somalia
 - 14 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

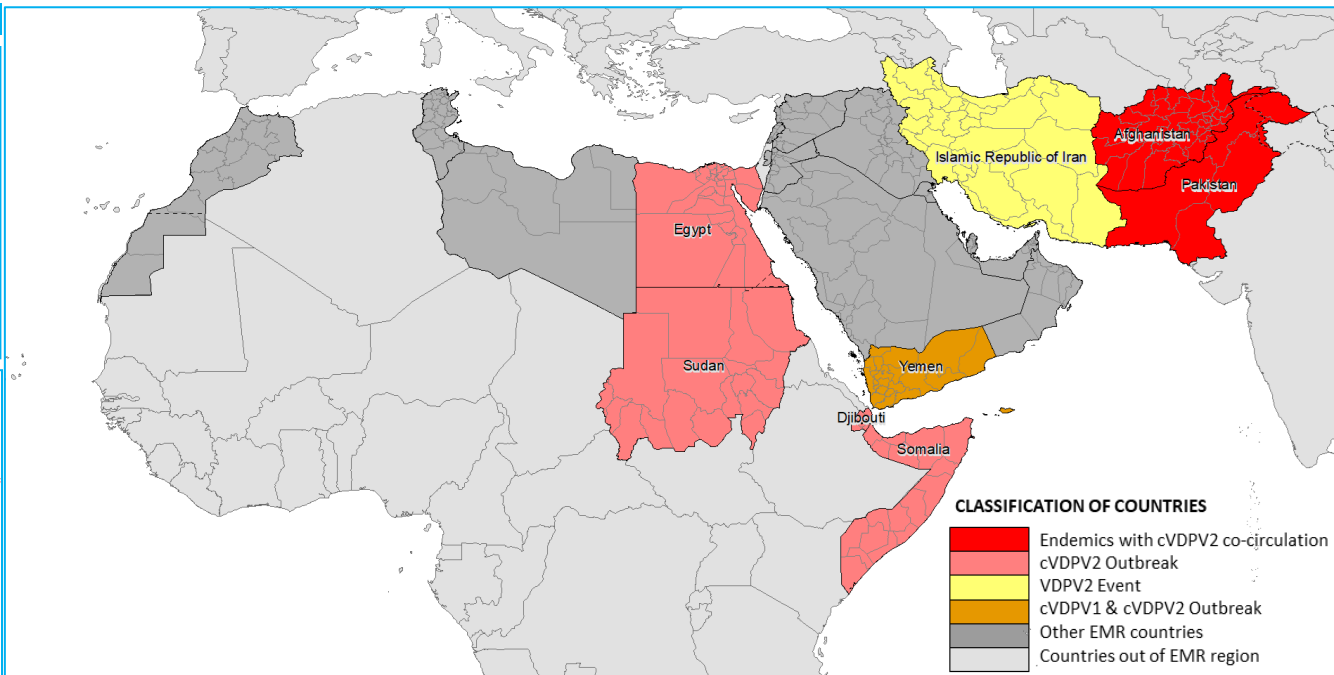
- 66 samples Wild Polio 1
 - 01 in Afghanistan
 - 65 in Pakistan

- 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)

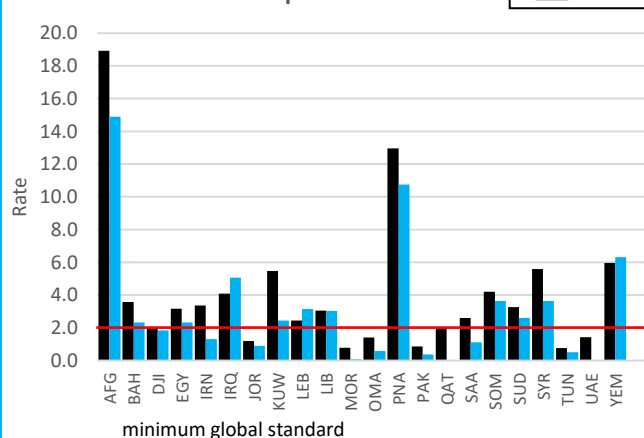
- No sample positive for cVDPV2
(No cVDPV2 for the last 3 months)



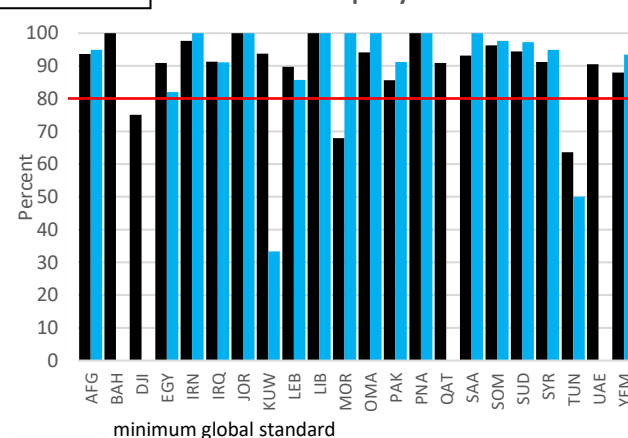
Highlights of the week

- No wild poliovirus isolates from human or environmental sample reported.
- Yemen: Three cases samples collected in 2021 tested positive for cVDPV2. These cases are from: Al-Dhale, district/province, of onset 19th October; Khanfar district, Abyan province, date of onset 27th October; and Al-Hali district, Al Hudaidah province, date of onset 29th October
- Two VDPV2 not related with YEM-TAI-1 emergence have been detected in: Mawyah district, Taiz province date onset 3rd October; and Marib City district, Marib province with date onset 29th October 2021,
- AFP surveillance review of Pakistan south KP is in progress.

Non polio AFP rate



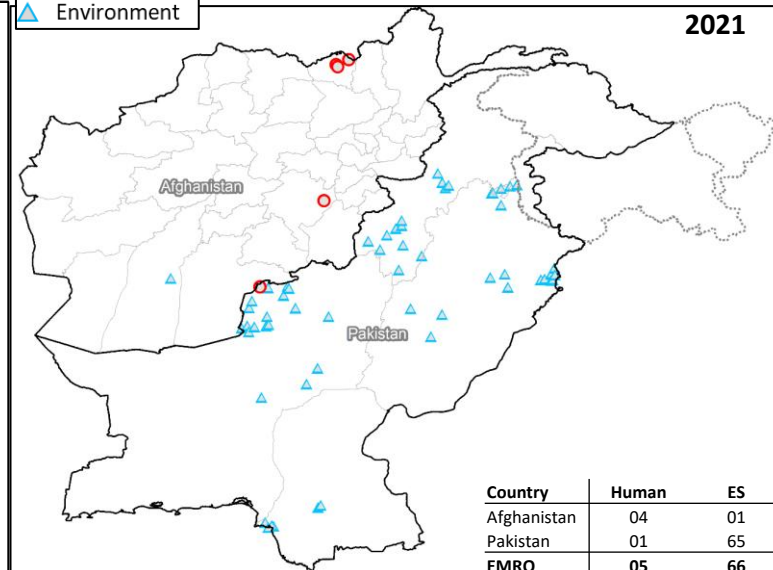
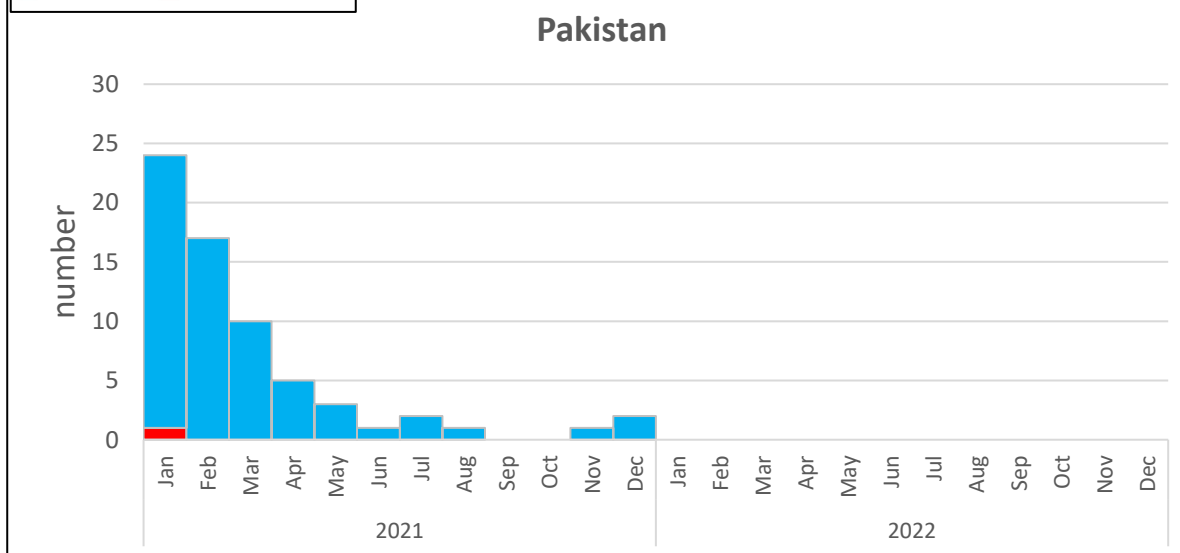
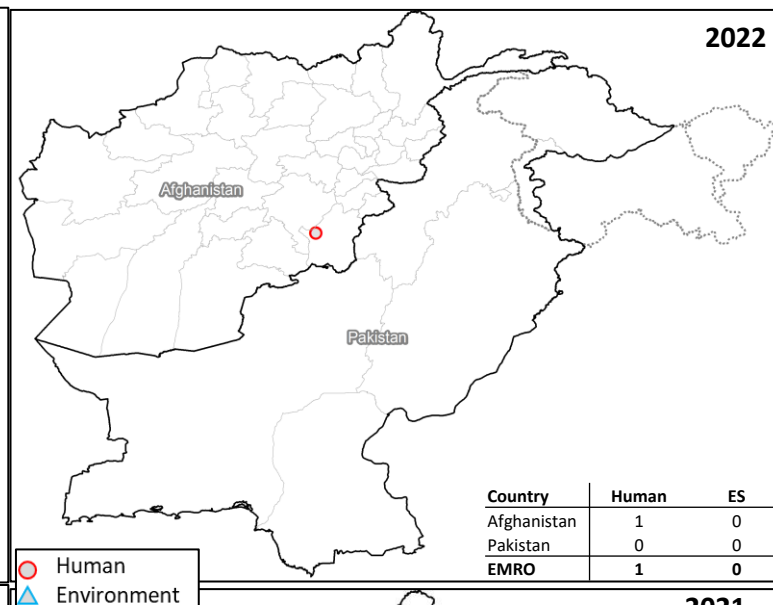
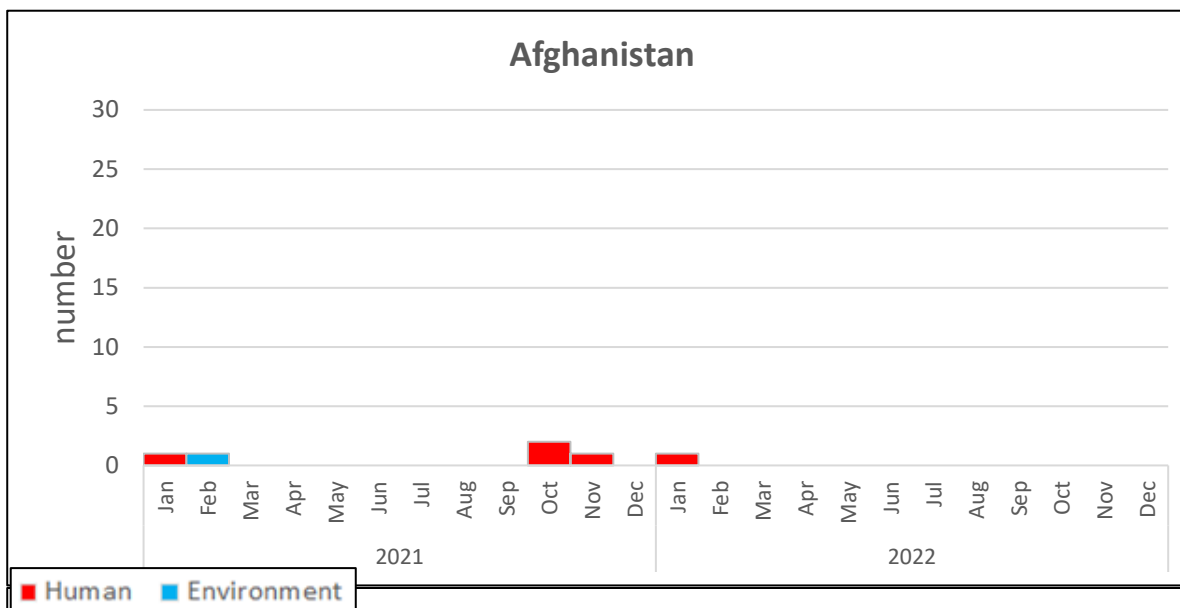
Stool adequacy



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

WPV1 Positive isolates from Afghanistan and Pakistan by source

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Virus isolation by country, last 12 months (Feb. 20, 2021 to Feb. 20, 2022)

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Source / Virus type	AFG	DJI	PAK	EGY	IRN	SOM	YEM	Total
Human (AFP only)	27		6	1		2	18	54
Wild	4							4
cVDPV2	21		2			2	14	39
Wild+cVDPV2								
Wild+aVDPV3								
cVDPV1							1	1
aVDPV1	1						1	2
aVDPV2	1		4	1				6
VDPV1								
VDPV2							2	2
Environment	22	5	70	73	3	1		174
Wild			21					21
cVDPV2	19	5	11	3	1	1		40
Wild+cVDPV2	1		6					7
Wild+aVDPV3			1					1
cVDPV1								
aVDPV1								
aVDPV2	2		31		2			35
VDPV1				1				1
VDPV2				69				69
Total	49	5	76	74	3	3	18	228

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	20-02		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		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	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		
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	4086	4	1	3987	45	27	0	18.92	93.56	452	1	0	276	0	0	0	14.90	94.91	20-Feb-22
BAHRAIN	11	0	0	8	0	0	0	3.58	100.00	1	0	0	0	0	0	0	2.33	0.00	20-Feb-22
DJIBOUTI	8	0	0	4	0	1	0	2.06	75.00	1	0	0	0	0	0	0	1.85	0.00	20-Feb-22
EGYPT	1251	0	0	1225	1	3	0	3.17	90.89	128	0	0	38	0	0	0	2.32	82.03	17-Feb-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	38	0	0	8	0	0	0	1.31	100.00	19-Feb-22
IRAQ	709	0	0	700	0	3	0	4.08	91.26	123	0	0	75	0	0	0	5.07	91.06	18-Feb-22
JORDAN	47	0	0	44	0	0	0	1.19	100.00	5	0	0	3	0	0	0	0.90	100.00	10-Feb-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	3	0	0	1	0	0	0	2.45	33.33	13-Feb-22
LEBANON	39	0	0	36	0	3	0	2.45	89.74	7	0	0	0	0	0	0	3.15	85.71	13-Feb-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	11	0	0	0	0	0	0	3.04	100.00	19-Feb-22
MOROCCO	78	0	0	42	0	26	7	0.79	67.95	1	0	0	0	0	0	0	0.07	100.00	14-Feb-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	1	0	0	0	0	0	0	0.60	100.00	20-Feb-22
PAKISTAN	13057	1	4	12847	18	33	0	12.95	85.59	1512	0	0	961	0	0	0	10.74	91.20	20-Feb-22
PALESTINE	16	0	0	10	0	4	0	0.85	100.00	1	0	0	0	0	0	0	0.38	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		20-Feb-22
SAUDI ARABIA	218	0	0	204	0	0	0	2.60	93.12	13	0	0	0	0	0	0	1.11	100.00	20-Feb-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	42	0	0	19	1	0	0	3.63	97.62	20-Feb-22
SUDAN	637	0	0	629	0	5	0	3.26	94.35	71	0	0	16	0	0	0	2.61	97.18	17-Feb-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	39	0	0	7	0	0	0	3.63	94.87	19-Feb-22
TUNISIA	22	0	0	22	0	0	0	0.77	63.64	2	0	0	2	0	0	0	0.50	50.00	18-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	920	0	0	673	20	83	64	5.96	87.93	136	0	0	0	0	0	0	6.31	93.38	19-Feb-22
EMR POL	22736	5	5	22064	86	188	71	7.94	88.59	2587	1	0	1406	1	0	0	6.47	91.88	

* 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)

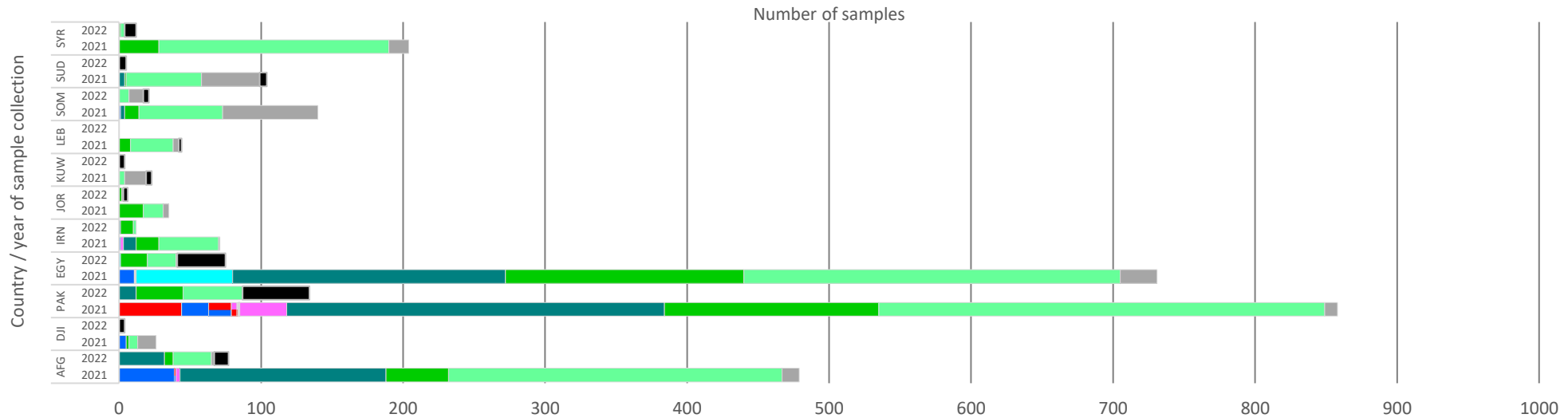
Laboratory investigation of AFP cases with paralysis onset in 2022

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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	444	27	2	46	210	141		1	10			5			20						12%	100%	100%	100%	20-Feb-22
Bahrain	NPL Oman / CDC	1				1																0%	100%		100%	20-Feb-22
Djibouti	NPL Kenya / CDC	1					1																			20-Feb-22
Egypt***	RRL Egypt	139	2	1	8	72	56											1	1			11%	92%	100%	100%	17-Feb-22
Iran	NPL Iran / CDC	55	2		1	42	10			1						2						1%	100%	100%	100%	19-Feb-22
Iraq	NPL Iraq, RRL Egypt	127	1		4	87	34	2														3%	100%		100%	17-Feb-22
Jordan	NPL Jordan, RRL Egypt	6				5	1	1														0%	100%		100%	20-Feb-22
Kuwait	RRL Kuwait / RIVM	2					1	1																		20-Feb-22
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	5					5															0%				20-Feb-22
Libya	RRL Tunisia / RIVM	7				3	4															0%	100%		100%	20-Feb-22
Morocco	NPL Morocco, RRL Tunisia	4				3	1															0%	100%		100%	18-Feb-22
Oman	NPL Oman / CDC	8				5	2	1														5%	100%		100%	20-Feb-22
Pakistan	RRL Pakistan	1495	54	2	186	773	468	12		32			1			36					1	12%	100%	100%	100%	20-Feb-22
Palestine & UNRWA		1				1																0%	0%		100%	13-Feb-22
Qatar	NPL Oman / CDC																									20-Feb-22
Saudi Arabia	NPL Saudi Arabia / CDC	25				15	10															0%	93%		100%	20-Feb-22
Somalia	NPL Kenya / CDC	42			1	19	7	15														5%	5%		100%	20-Feb-22
Sudan	NPL Sudan / RRL Egypt	33			1	5		27														13%	100%			27-Jan-22
Syria	NPL Syria / RRL Egypt	36				7	17	12														0%	100%			20-Feb-22
Tunisia	RRL Tunisia	4				3	1															0%	100%		100%	20-Feb-22
U.A.E	NPL Oman / CDC																									20-Feb-22
Yemen	NPL Oman, NPL Kenya, RRL Egypt																									19-Feb-22
Total EMR 2022		2435	86	5	247	1251	759	71	1	43			6			58			1	1	1	11%	98%	100%	100%	
Total EMR 2021		21967	1145	126	3852	16789	41	11	5	473	7	14	363	66		586	1	1	7	2	19	14%	97%	99%	94%	

Environmental Surveillance Isolation by Classification

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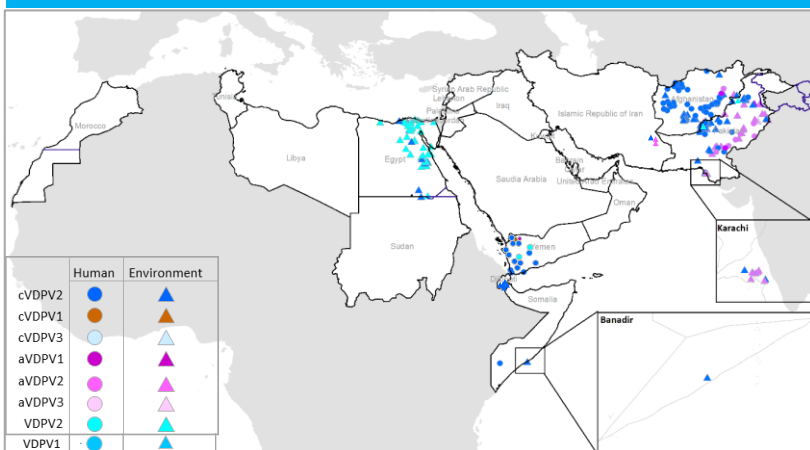


	AFG		DJI		PAK		EGY		IRN		JOR		KUW		LEB		SOM		SUD		SYR	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Wild					44																	
cVDPV2	39		5		19		11		1						1							
Wild+cVDPV2	1				16																	
Wild+aVDPV2					4																	
Wild+aVDPV3					1																	
aVDPV1					1																	
aVDPV2	3				33				2													
aVDPV3																						
VDPV1							1															
VDPV2							68	1														
SL2	145	32			266	12	192		9	1							3		4			
SL1/3	44	6	2		151	33	168	19	16	9	17	2			8		10		1		28	1
Entero	235	27	6		314	42	265	20	42	2	14		4		30		59	7	53		162	3
Negative	12	2	13		9		26	1	1		4	1	15		4		67	10	41		14	
Pending		10		4		47		34				3	4	4	2			4	5	5		8

VDPVs isolations by Source and Country

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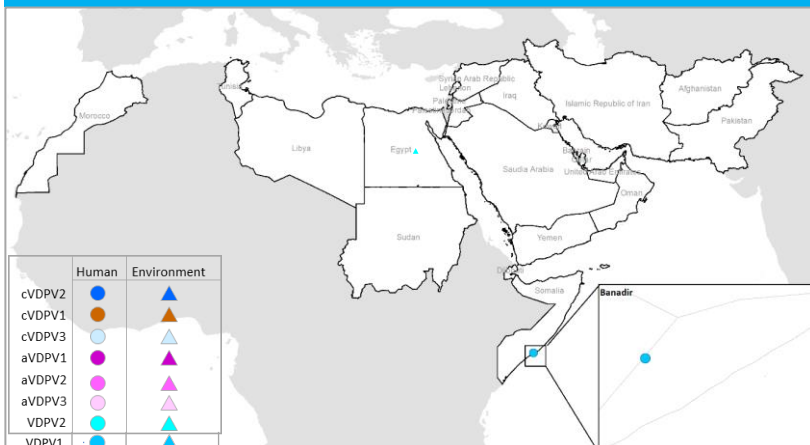
VDPV Isolates, EMR countries, 2021



VDPVs isolated from 2017-2022

cVDPV Isolate type	EMR Country	Sources																	
		AFP cases(Human)						Contacts(Human)						Environment					
		2017	2018	2019	2020	2021	Most recent	2017	2018	2019	2020	2021	Most recent	2017	2018	2019	2020	2021	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	1	05-01-22	2	19	5	26	1		23-05-21
	Sudan				58		18-12-20			18						14			09-11-20
	Syria	74					21-09-17	63					12-09-17						
cVDPV1	Yemen			1	31	3	27-03-21		2				10-07-19						
	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
	Yemen					2	29-10-21												

VDPV Isolates, EMR countries, 2022



Important links

EMR Polio Bulletin - Issue No. 1220, Week 07 (ending on 20/02/2022)

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