

Highlights



Children
Paralyzed
by polio



Sewage
water
sampling

2021

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

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

- 03 cVDPV1 cases
 - All in Yemen

2022

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

- 104 samples cVDPV2
 - 40 in Afghanistan
 - 35 in Pakistan
 - 12 in Egypt
 - 01 in Iran
 - 01 in Somalia
 - 05 in Djibouti
 - 10 in Yemen

2022

- 15 cases of Wild Polio 1
 - 01 in Afghanistan
 - 14 in Pakistan

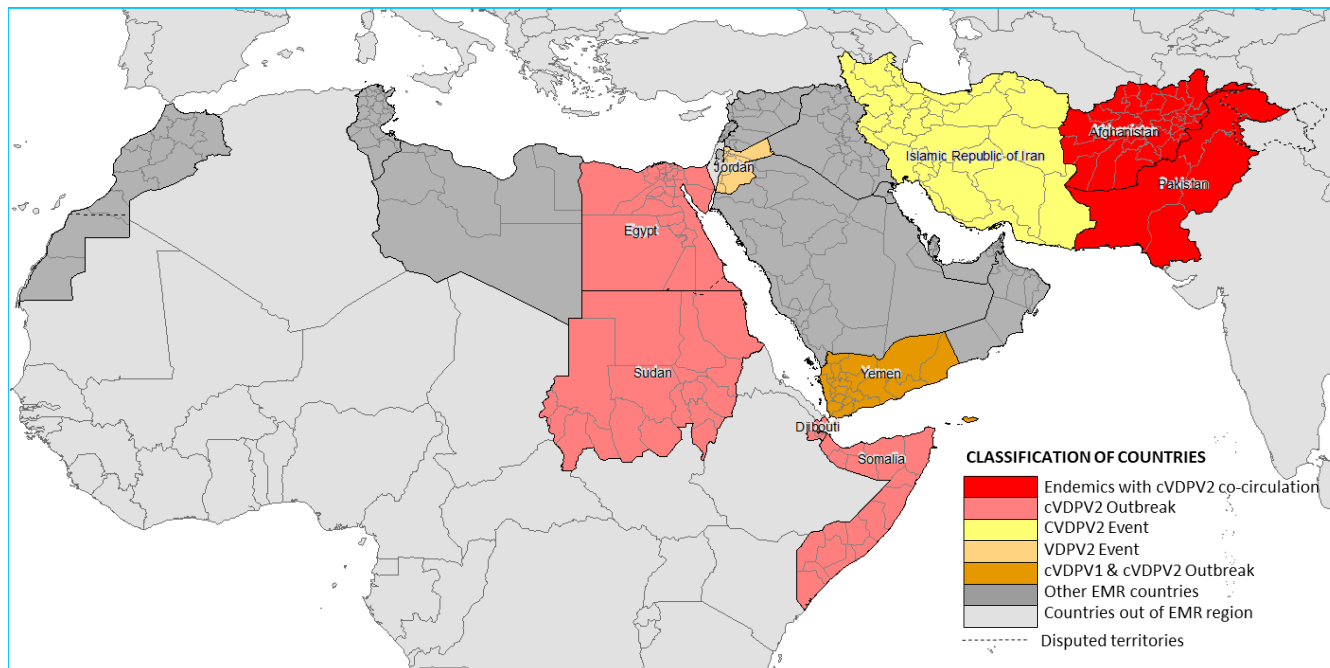
- 82 cases of cVDPV2
 - 02 in Somalia
 - 80 in Yemen

- Zero case of cVDPV1
(No cVDPV1 for the last 15 months)

2022

- 13 samples Wild Polio 1
 - 02 in Afghanistan
 - 11 in Pakistan

- 18 samples of cVDPV2
 - 05 in Egypt
 - 11 in Djibouti
 - 02 Somalia

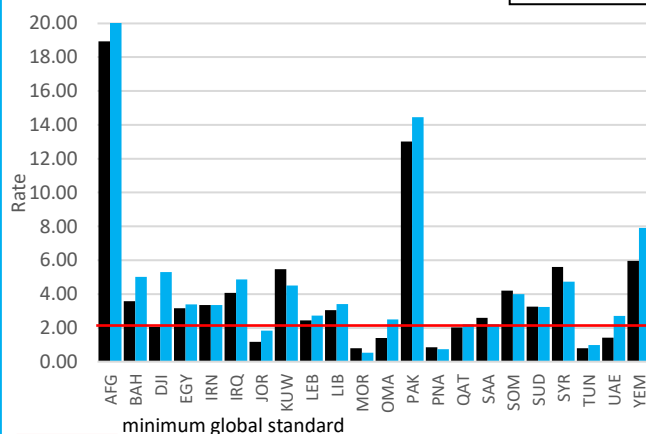


Highlights of the week

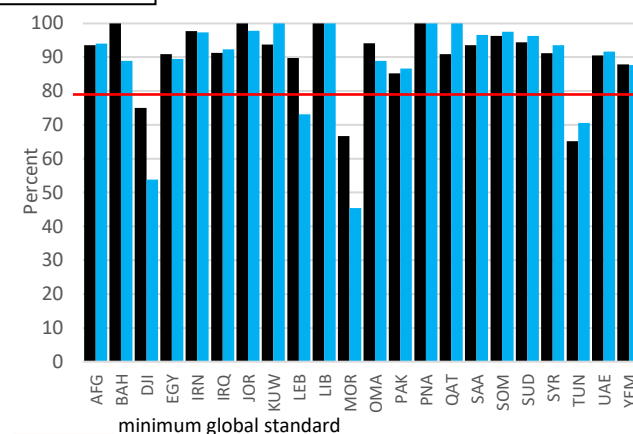
- Afghanistan:** One positive WPV1 environmental sample was reported this week from Kunar province with specimen collection date 20th July 2022.
- Pakistan:** Seven positive WPV1 environmental samples were reported this week from three provinces Punjab (2), Khyber Pakhtunkhwa (4) and Islamabad (1). Specimens' collection date varies between 18-20 July 2022.
- Yemen:** Nineteen new cVDPV2 cases reported this week, from six provinces Amran (1), Albaidah (2), Dharmar (6), IBB (3), Sanaa City (2) and Sanaa (5) and dates of onset varies between 18th February – 9th May 2022.
- The OBRA mission in Sudan was finalized and debriefing to the Federal Ministry of Health took place on the 1st of August 2022. The OBRA concluded that the 2020 cVDPV2 outbreak in Sudan had been interrupted and recommended to formally declare the outbreak as closed.

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

Non polio AFP rate

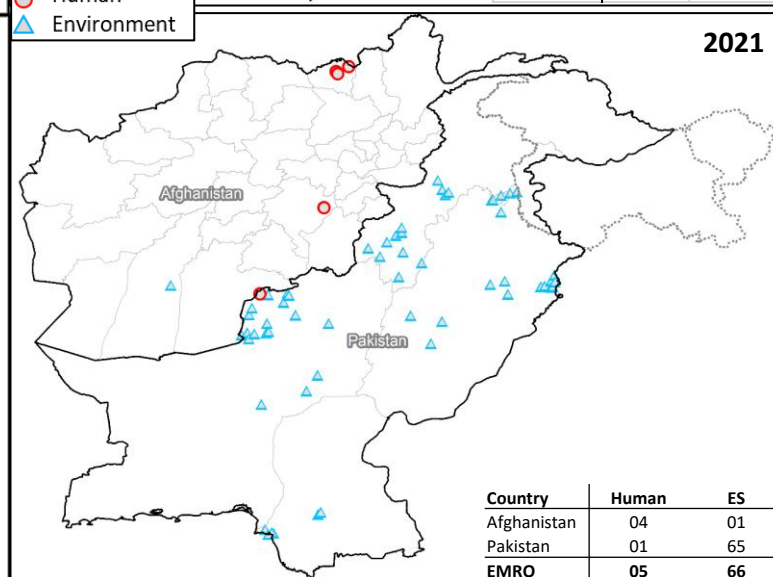
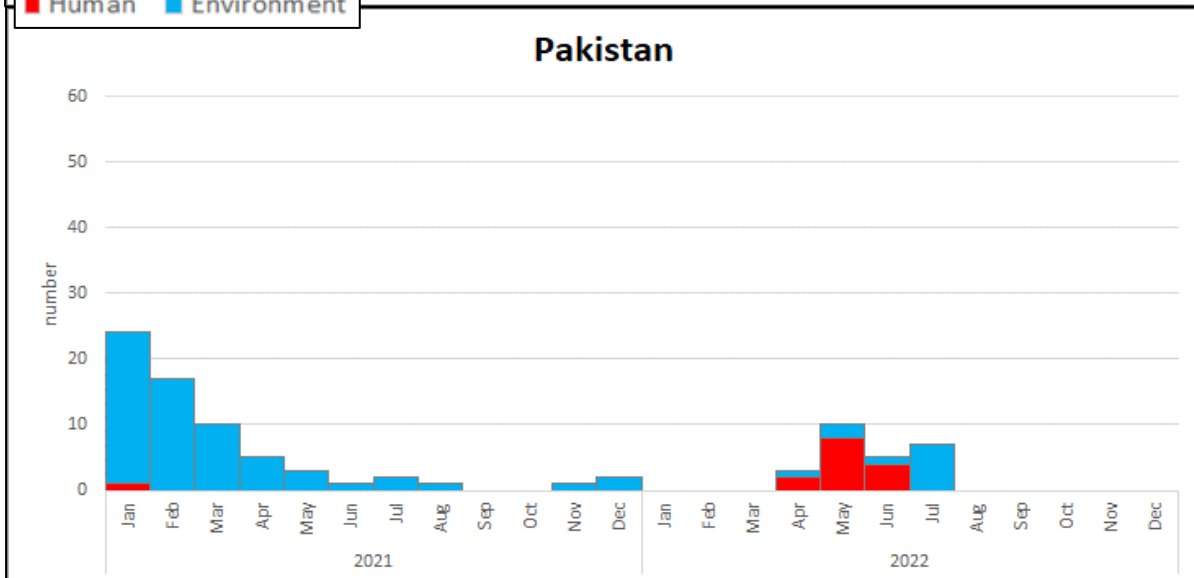
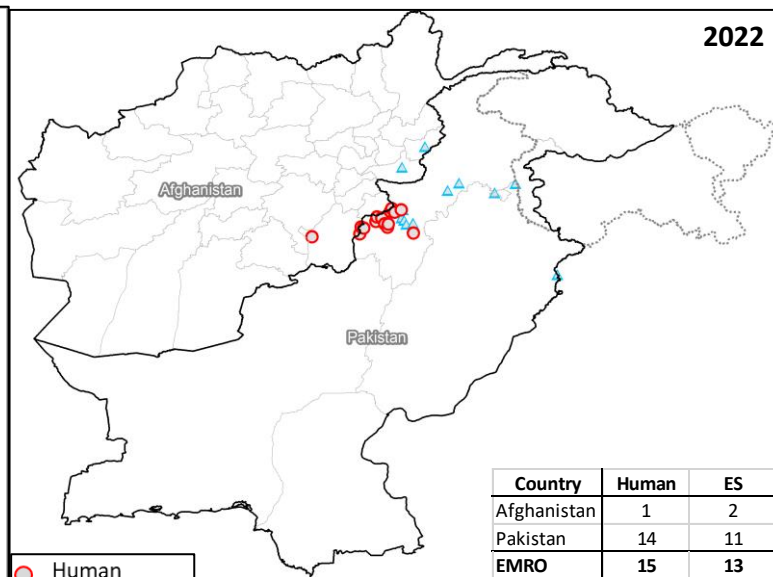
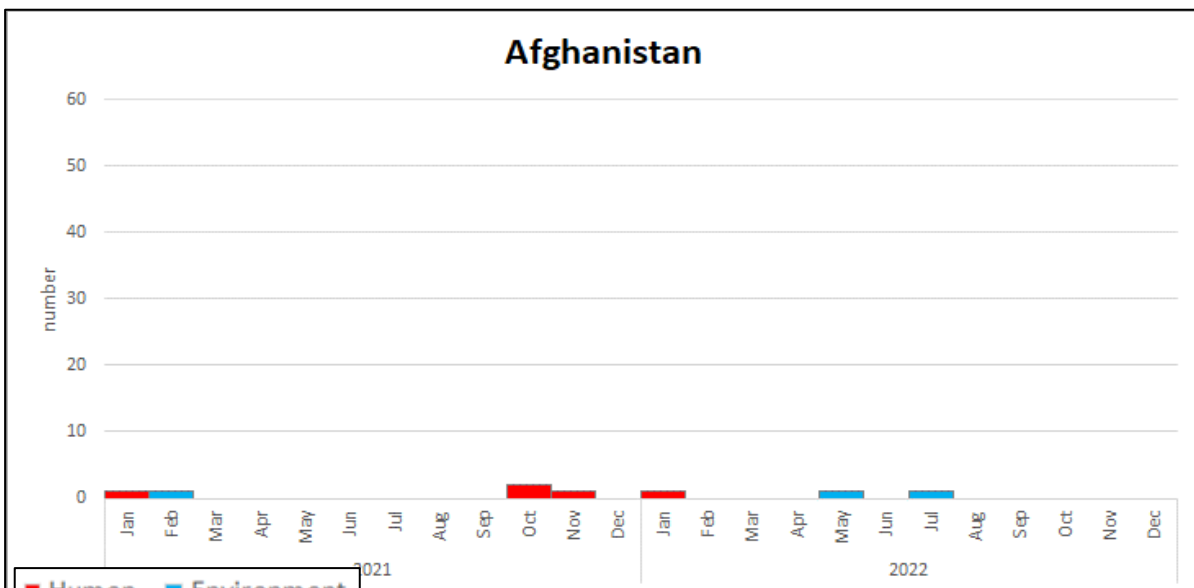


Stool adequacy



WPV1 Positive isolates from Afghanistan and Pakistan by source

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Virus isolation by country, last 12 months (Aug 07, 2021 to Aug 07, 2022)

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Source / Virus type	AFG	DJI	PAK	EGY	IRN	JOR	SOM	YEM	Total
Human (AFP only)	4		15				2	148	169
Wild	4		14						18
cVDPV2							2	145	147
aVDPV2			1					3	4
VDPV2									
Environment	2	16	26	22	2	3	3	10	84
Wild	2		15						17
cVDPV2		16	1	6			2	10	35
aVDPV2			10		1				11
VDPV2				16	1	3	1		21
Total	6	16	41	22	2	3	5	158	253

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	7 Aug.		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2021						2022						
			2021	2022	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
Afghanistan	56	4	1	1	0	2	1	0	1	0	0	0	0				14-Jan-22
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					
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	0			
Lebanon ****	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					
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	84	1	1	14	0	0	0	0	0	0	0	2	8	4			30-Jun-22
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	0				
Somalia	0	0	0	0	0	0	0	0	0		0			0			
Sudan	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		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							
EMR	140	5	2	15	0	2	1	0	1	0	0	2	8	4	0	0	30-Jun-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	4038	45	0	0	18.92	93.52	3068	1	0	2751	1	25	0	23.66	94.00	7-Aug-22
BAHRAIN	11	0	0	11	0	0	0	3.58	100.00	9	0	0	5	0	0	0	5.01	88.89	7-Aug-22
DJIBOUTI	8	0	0	7	0	1	0	2.06	75.00	13	0	0	3	0	0	0	5.31	53.85	7-Aug-22
EGYPT	1251	0	0	1250	1	0	0	3.17	90.89	804	0	0	714	0	10	0	3.40	89.43	4-Aug-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	407	0	0	389	0	0	0	3.35	97.30	6-Aug-22
IRAQ	709	0	0	709	0	0	0	4.08	91.26	509	0	0	420	0	27	0	4.88	92.34	6-Aug-22
JORDAN	47	0	0	47	0	0	0	1.19	100.00	46	0	0	45	0	0	0	1.85	97.83	4-Aug-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	25	0	0	23	0	0	0	4.51	100.00	7-Aug-22
LEBANON	39	0	0	39	0	0	0	2.45	89.74	26	0	0	11	0	7	3	2.72	73.08	31-Jul-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	53	0	0	44	0	0	0	3.41	100.00	6-Aug-22
MOROCCO	78	0	0	78	0	0	0	0.80	66.67	33	0	0	13	0	10	0	0.54	45.45	15-Jul-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	18	0	0	18	0	0	0	2.50	88.89	1-Aug-22
PAKISTAN	13118	1	4	13095	18	0	0	13.01	85.19	8759	14	0	7791	0	154	0	14.46	86.62	7-Aug-22
PALESTINE	16	0	0	16	0	0	0	0.85	100.00	9	0	0	6	0	0	0	0.75	100.00	7-Aug-22
QATAR	11	0	0	11	0	0	0	2.03	90.91	6	0	0	5	0	0	0	2.22	100.00	7-Aug-22
SAUDI ARABIA	217	0	0	217	0	0	0	2.59	93.55	115	0	0	77	0	0	0	2.22	96.52	31-Jul-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	199	0	0	177	2	1	1	4.00	97.49	7-Aug-22
SUDAN	636	0	0	636	0	0	0	3.26	94.34	379	0	0	327	0	11	1	3.24	96.31	4-Aug-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	218	0	0	195	0	0	0	4.72	93.58	6-Aug-22
TUNISIA	23	0	0	23	0	0	0	0.81	65.22	17	0	0	11	0	1	0	0.99	70.59	5-Aug-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	24	0	0	0	0	10	0	2.71	91.67	1-Aug-22
YEMEN	921	0	0	849	72	0	0	5.96	87.84	732	0	0	378	80	51	28	7.91	87.70	6-Aug-22
EMR POL	22799	5	5	22650	138	1	0	7.97	88.33	15469	15	0	13403	83	307	33	8.99	89.27	

* 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

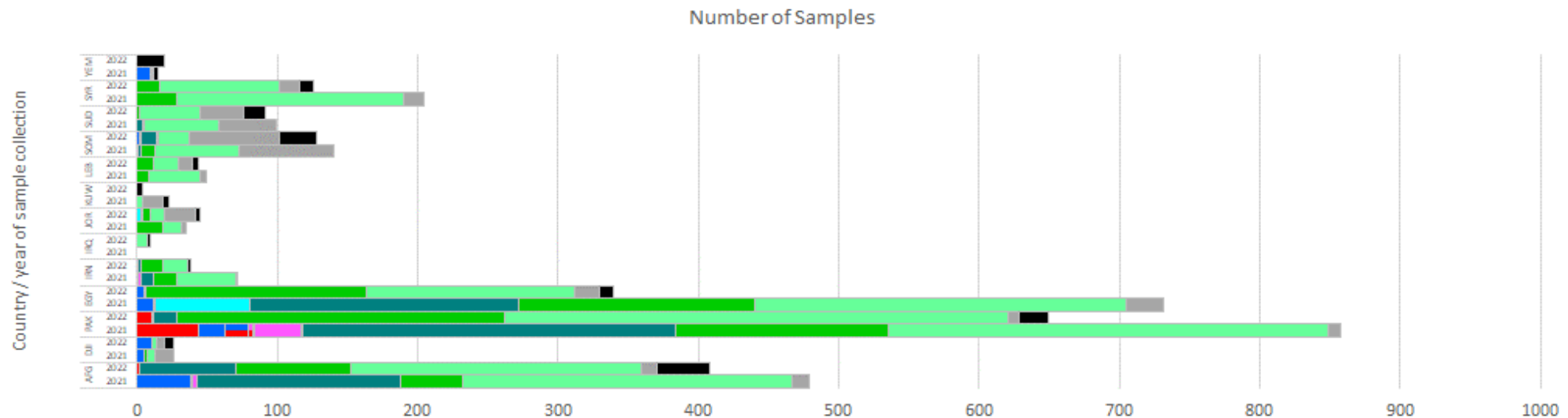
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Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results													Indicators				Latest report Date
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV 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	3025	190	26	507	2085	189	1	1	137			8		156					5	14%	95%	100%	99%	07-Aug-22	
Bahrain	NPL Oman / CDC	9				9															0%	100%		100%	04-Aug-22	
Djibouti	NPL Kenya / CDC	13	2		1	2		8							2						33%	0.4		33%	07-Aug-22	
Egypt***	RRL Egypt	788	17	4	103	614	44	6		8					12			3	1		12%	98%	100%	99%	04-Aug-22	
Iran	NPL Iran / CDC	371	6		4	343	1	17		2					5						1%	100%	100%	99%	31-Jul-22	
Iraq	NPL Iraq, RRL Egypt	506	1		44	433	27	1							2						9%	100%	50%	99%	04-Aug-22	
Jordan	NPL Jordan, RRL Egypt	45	2		11	28	1	3							2						28%	100%	1	100%	28-Jul-22	
Kuwait	RRL Kuwait / RIVM	19				19															0%	100%		100%	07-Aug-22	
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	23	1			17	5														0%	100%			07-Aug-22	
Libya	RRL Tunisia / RIVM	52				47	5														0%	100%		100%	05-Aug-22	
Morocco	NPL Morocco, RRL Tunisia	26			2	23		1													8%	100%		92%	05-Aug-22	
Oman	NPL Oman / CDC	5			2	3															40%	60%		100%	04-Aug-22	
Pakistan	RRL Pakistan	8521	288	40	1433	6233	512	17	12 *	156			1		249						13%	96%	100%	96%	07-Aug-22	
Palestine & UNRWA		9				7	2														0%	14%		86%	07-Aug-22	
Qatar	NPL Oman / CDC	6	1			5				1											0%	83%	0	100%	04-Aug-22	
Saudi Arabia	NPL Saudi Arabia / CDC	88	1		2	85									1						2%	88%	0%	97%	31-Jul-22	
Somalia	NPL Kenya / CDC	199	7		37	138	7	14		2			7	2							20%	8%		99%	07-Aug-22	
Sudan	NPL Sudan / RRL Egypt	379	8		91	239	40	1													29%	63%		100%	04-Aug-22	
Syria	NPL Syria / RRL Egypt	209	2		14	180	13														5%	99%			07-Aug-22	
Tunisia	RRL Tunisia	15				14	1														0%	100%		93%	05-Aug-22	
U.A.E	NPL Oman / CDC	22				22															0%	100%		68%	04-Aug-22	
Yemen	NPL Oman, NPL Kenya, RRL Egypt	567	127	2	66	329	43			5				80		10		28	1	1	14	11%	40%	21%	0%	06-Aug-22
Total EMR 2022		14897	653	72	2317	10875	890	69	15	311			16	82		439		28	4	2	19	13%	92%	86%	94%	
Total EMR 2021		22113	1183	128	3874	16919		5	5	478	7		363	107		599	1	11	7	2	2	14%	97%	97%	93%	

* Two WPV1 cases are confirmed due to positive contacts (Index cases were negative for WPV1)

Environmental Surveillance Isolation by Classification

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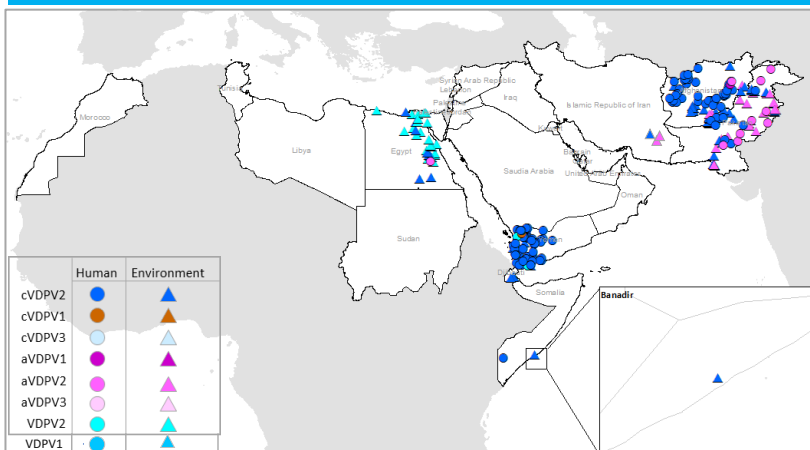


	AFG		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SOM		SUD		SYR		YEM	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Wild		2			44	11																				
cVDPV2	39		5	11	19		12	5	1										1	2					10	
Wild+cVDPV2	1				16																					
Wild+aVDPV2					4																					
Wild+aVDPV3					1																					
aVDPV1																										
aVDPV2	3				33	1			2																	
aVDPV3																										
VDPV1					1		1																			
VDPV2							67	1		1				3							1					
SL2	145	68			266	16	192		9	2			1						2	11	4					
SL1/3	44	83	2		151	234	168	158	16	15			18	6			9	12	10	1	1	2	28	16	1	
Entero	235	206	6	3	314	359	265	148	42	18		8	14	10	4		36	18	60	22	53	43	162	85	1	
Negative	12	11	13	6	9	7	26	18	1				3	22	15		5	10	67	64	41	31	14	15		
Pending		38		6		21		9		3		2		3	4	4		4		27		16		10	3	20

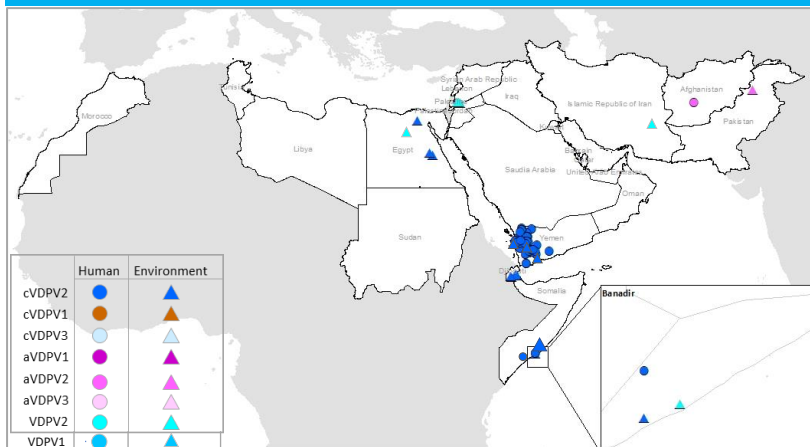
VDPVs isolations by Source and Country

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VDPV Isolates, EMR countries, 2021



VDPV Isolates, EMR countries, 2022



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	11		24-04-22						
	Egypt																		12	5		28-04-22							
	Iran																		3	1		20-02-21							
	Pakistan			22	135	8		23-04-21										38	135	35		11-08-21							
	Somalia	6	3	14	1	2	18-02-22		3	1	11		3	22-02-22	2	19	5	26	1	2	21-04-22				1	5		1	10-03-22
	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					66	80	09-05-22					23	22	26-01-22				10			29-11-21								
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		23-09-21							
	Pakistan				7	8	24-09-21				8	19	1	28-04-21	5			3	22	37	1	15-02-22							
	Somalia																2	1				03-02-19							
	Yemen					3	01-11-21					1	09-12-21																
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	1	12-01-22							
	Iran																				1	04-02-22							
	Jordan																			3		25-05-22							
	Pakistan																			1		15-02-22							

Important links

EMR Polio Bulletin - Issue No. 1244, Week 31 (ending on 07/08/2022)

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