

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

2021

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

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

2022

- 22 cases of Wild Polio 1
 - 02 in Afghanistan
 - 20 in Pakistan

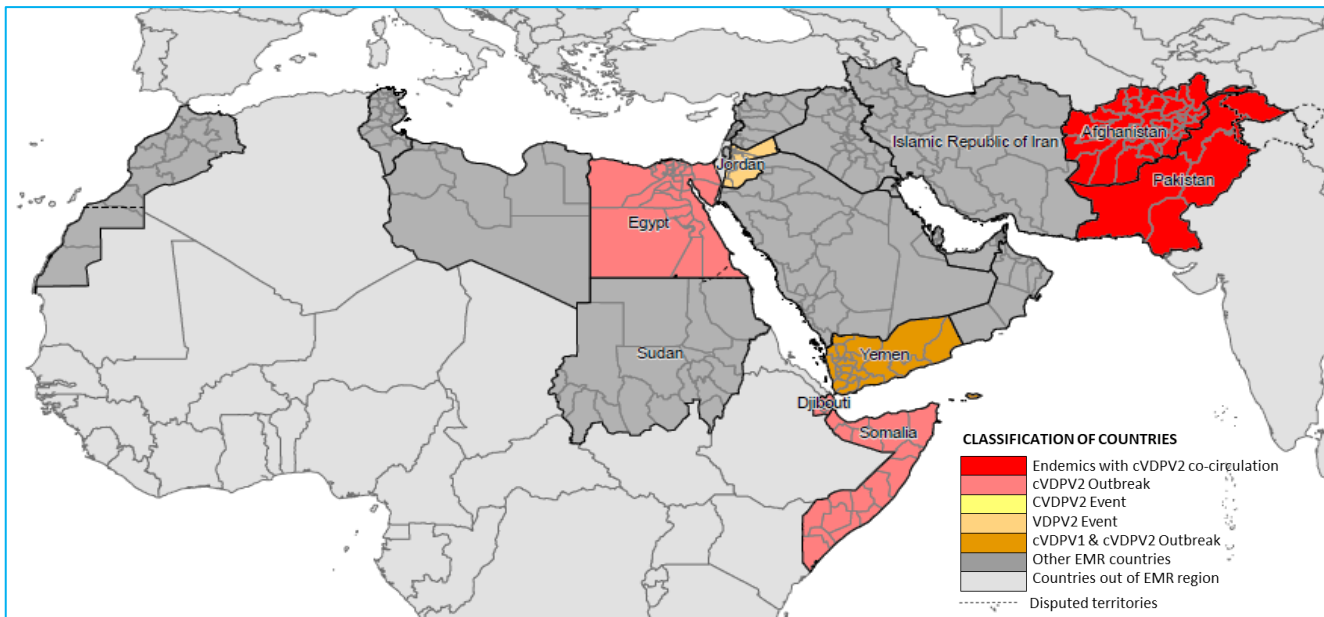
- 158 cases of cVDPV2
 - 04 in Somalia
 - 154 in Yemen

- Zero case of cVDPV1
(No cVDPV1 for the last 19 months)

2022

- 43 samples Wild Polio 1
 - 11 in Afghanistan
 - 32 in Pakistan

- 24 samples of cVDPV2
 - 06 in Egypt
 - 12 in Djibouti
 - 03 in Somalia
 - 03 in Yemen



Highlights of the week

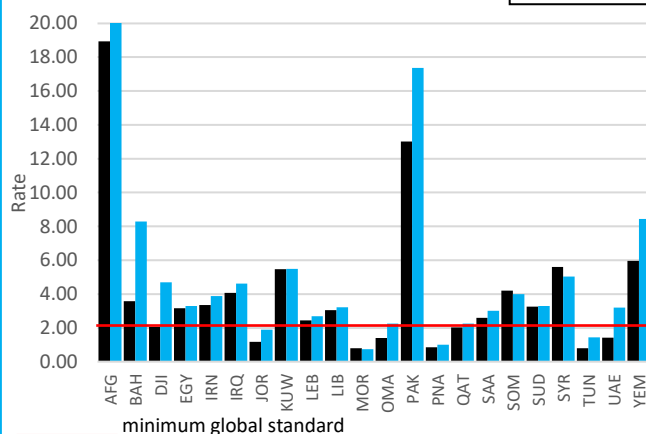
Wild Poliovirus

- No new Wild Poliovirus Type 1 (WPV1) cases were reported this week and the count in 2022 remains to be 22 cases (2 from Afghanistan and 20 from Pakistan).
- Three new WPV1 positive environmental samples were reported this week from Afghanistan. The three isolates are all from Nangarhar province, one from Batikot district with specimen collection date on 1st November 2022 and the other two are from two different environmental sites in Jalalabad district, both with specimen collection date on 2nd November 2022

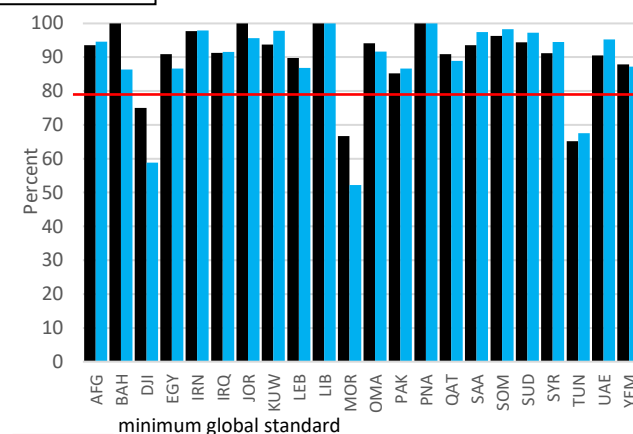
Circulating vaccine derived poliovirus (cVDPV):

- No new cVDPV2 cases or positive environmental samples were reported this week and the 2022 case count remains to be 158 cases (4 from Somalia and 154 from Yemen) and 24 positive environmental samples (6 from Egypt, 12 from Djibouti, 3 from Somalia and 3 from Yemen).

Non polio AFP rate

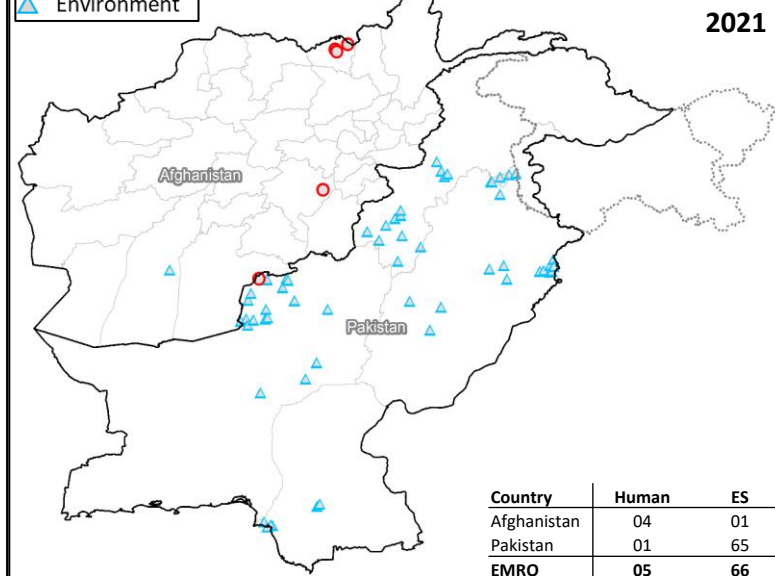
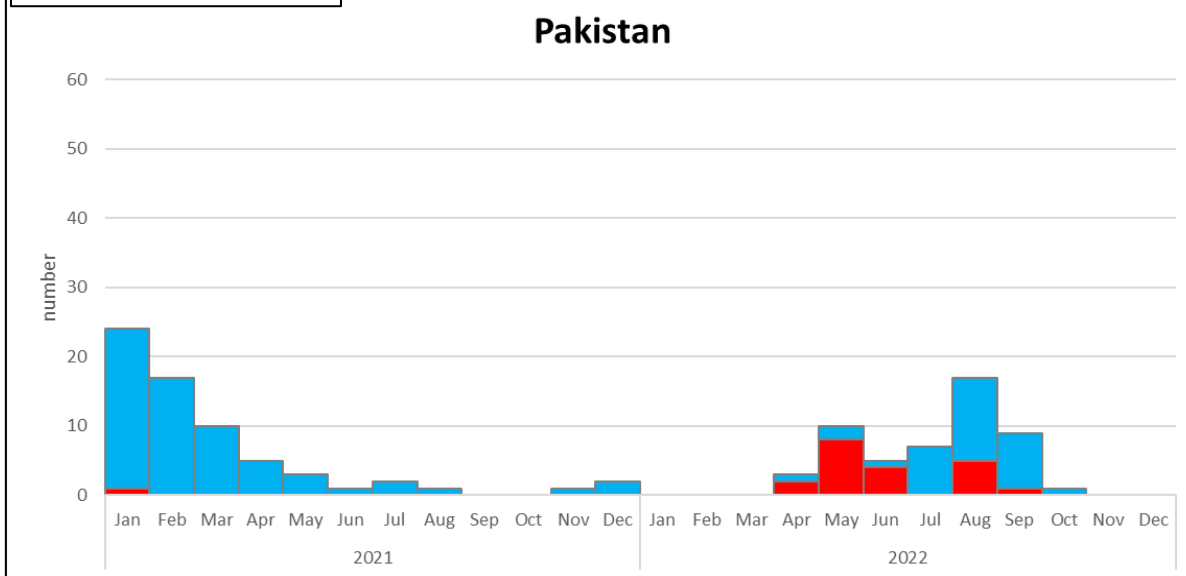
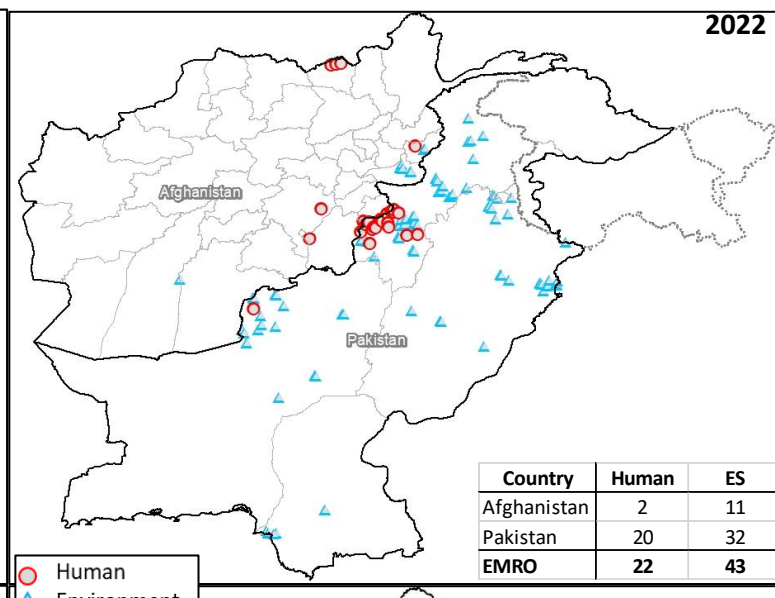
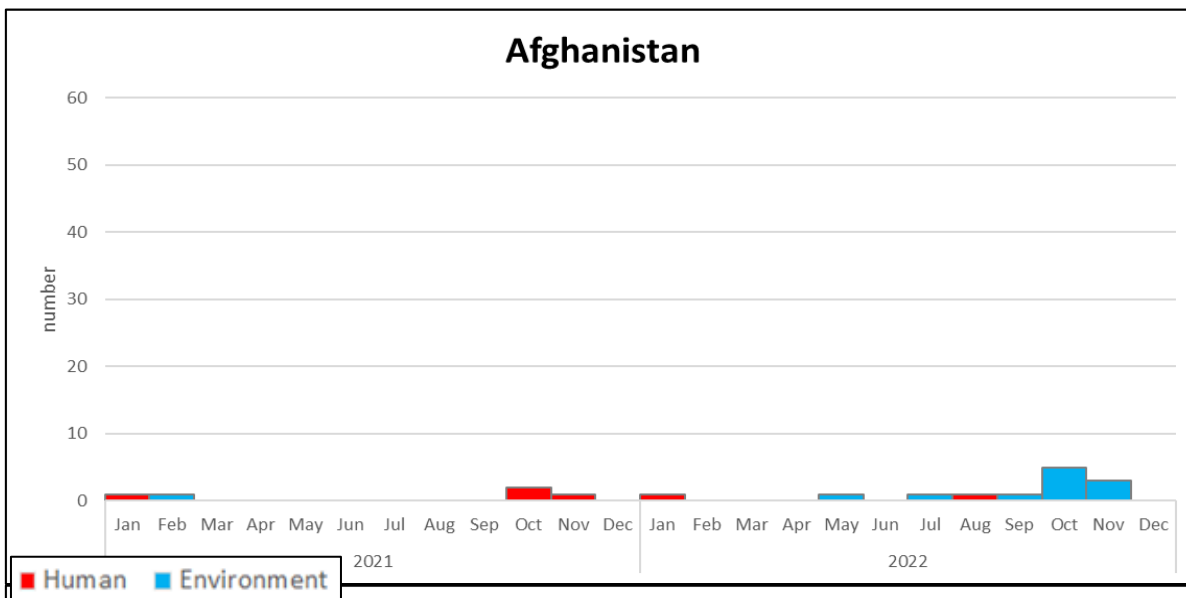


Stool adequacy




WPV1 Positive isolates from Afghanistan and Pakistan by source

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

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Source / Virus type 	AFG	DJI	PAK	EGY	IRN	JOR	SOM	YEM	Total
Human (AFP only)	3		20				4	187	214
Wild	2		20						22
cVDPV2							4	187	191
aVDPV2	1								1
VDPV2									
Environment	11	15	37	7	1	3	4	9	87
Wild	11		34						45
cVDPV2		15		6			3	9	33
aVDPV2			3						3
VDPV2				1	1	3	1		6
Total	14	15	57	7	1	3	8	196	301

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 Nov.		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2021	2022											
			2021	2022	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Afghanistan	56	4	3	2	0	1	0	0	0	0	0	0	1	0			29-Aug-22
Bahrain	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	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			
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	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		0				
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	84	1	1	20	0	0	0	0	2	8	4	0	5	1			15-Sep-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	0		
Saudi Arabia	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					
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	0			
U.A.E	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	0					
EMR	140	5	4	22	0	1	0	0	2	8	4	0	6	1	0	0	15-Sep-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	4581	2	0	4329	1	38	0	23.89	94.59	20-Nov-22
BAHRAIN	11	0	0	11	0	0	0	3.58	100.00	22	0	0	9	0	1	0	8.28	86.36	13-Nov-22
DJIBOUTI	8	0	0	8	0	0	0	2.06	75.00	17	0	0	14	0	0	0	4.69	58.82	20-Nov-22
EGYPT	1251	0	0	1250	1	0	0	3.17	90.89	1153	0	0	1035	0	20	0	3.29	86.64	17-Nov-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	703	0	0	670	0	0	0	3.88	97.87	19-Nov-22
IRAQ	709	0	0	709	0	0	0	4.08	91.26	713	0	0	646	0	28	0	4.61	91.58	19-Nov-22
JORDAN	47	0	0	47	0	0	0	1.19	100.00	69	0	0	66	0	0	0	1.89	95.65	20-Nov-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	45	0	0	40	0	0	0	5.48	97.78	20-Nov-22
LEBANON	39	0	0	39	0	0	0	2.45	89.74	38	0	0	28	0	6	0	2.69	86.84	19-Nov-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	74	0	0	67	0	0	0	3.22	100.00	20-Nov-22
MOROCCO	78	0	0	78	0	0	0	0.80	66.67	67	0	0	29	0	22	1	0.75	52.24	6-Nov-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	24	0	0	24	0	0	0	2.25	91.67	13-Nov-22
PAKISTAN	13118	1	4	13095	18	0	0	13.01	85.19	15559	20	1	14505	0	211	0	17.37	86.64	20-Nov-22
PALESTINE	16	0	0	16	0	0	0	0.85	100.00	18	0	0	10	0	1	0	1.01	100.00	13-Nov-22
QATAR	11	0	0	11	0	0	0	2.03	90.91	9	0	0	8	0	0	0	2.25	88.89	20-Nov-22
SAUDI ARABIA	217	0	0	217	0	0	0	2.59	93.55	230	0	0	147	0	0	0	3.01	97.39	20-Nov-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	295	0	0	252	4	1	1	4.00	98.31	20-Nov-22
SUDAN	636	0	0	636	0	0	0	3.26	94.34	571	0	0	502	0	5	1	3.30	97.20	17-Nov-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	344	0	0	320	0	0	0	5.04	94.48	19-Nov-22
TUNISIA	23	0	0	23	0	0	0	0.81	65.22	37	0	0	35	0	0	0	1.45	67.57	18-Nov-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	42	0	0	0	0	30	0	3.21	95.24	18-Nov-22
YEMEN	921	0	0	849	72	0	0	5.96	87.84	1157	0	0	783	154	19	5	8.45	87.21	14-Nov-22
EMR POL	22799	5	5	22651	138	0	0	7.97	88.33	25768	22	1	23519	159	382	8	10.12	89.06	

* 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)

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

Laboratory investigation of AFP cases with paralysis onset in 2022

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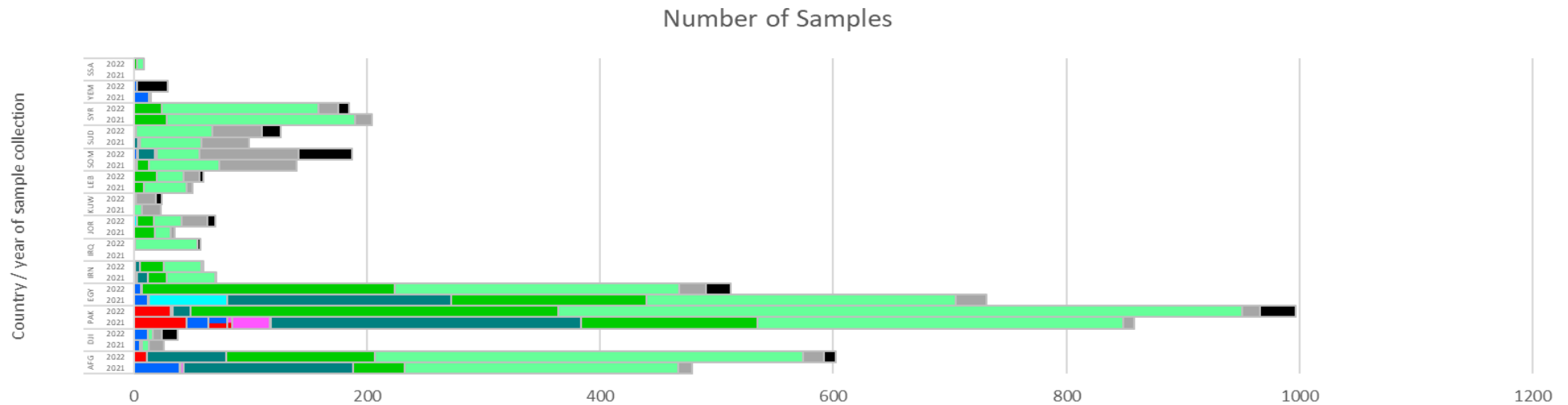
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators				Latest report Date	
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant 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	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild									
Afghanistan	RRL Pakistan	4539	265	39	808	3256	157	2	2	195			8			224					5	15%	97%	100%	99%	20-Nov-22
Bahrain	NPL Oman / CDC	15			1	14																6%	93%		93%	15-Nov-22
Djibouti	NPL Kenya / CDC	17	2		4	8	1	2		2			2			2						29%	71%		71%	20-Nov-22
Egypt	RRL Egypt	1149	21	5	156	883	72	12		8						14			4	1		12%	94%	100%	99%	17-Nov-22
Iran	NPL Iran / CDC	700	11		8	673	6	2		4	1					8						1%	100%	100%	99%	20-Nov-22
Iraq	NPL Iraq, RRL Egypt	721	3		58	629	27	4								4					2	9%	100%	50%	99%	18-Nov-22
Jordan	NPL Jordan, RRL Egypt	69	3		15	45	2	4								3						26%	98%	1	100%	16-Nov-22
Kuwait	RRL Kuwait / RIVM	47	2			40	4	1		1						1		1			1	2%	100%	1	100%	20-Nov-22
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	34	1			32	1															0%	100%			17-Nov-22
Libya	RRL Tunisia / RIVM	75			2	70	3															3%	100%		100%	19-Nov-22
Morocco	NPL Morocco, RRL Tunisia	57			4	51	1	1														7%	100%		93%	11-Nov-22
Oman	NPL Oman / CDC	27			4	23																14%	81%		100%	15-Nov-22
Pakistan	RRL Pakistan	15219	414	57	2757	11581	378	7	17*	244			1			345						15%	98%	100%	97%	20-Nov-22
Palestine & UNRWA		18				13		5														0%	38%		92%	13-Nov-22
Qatar	NPL Oman / CDC	9	1			8				1												0%	89%	0	100%	15-Nov-22
Saudi Arabia	NPL Saudi Arabia / CDC	222	3		4	199	5	11		1						2						2%	92%	33%	98%	14-Nov-22
Somalia	NPL Kenya / CDC	295	10	1	50	200	3	36		2			9	4								20%	6%		87%	20-Nov-22
Sudan	NPL Sudan / RRL Egypt	559	8		135	372	1	43										1				26%	74%	100%	22%	10-Nov-22
Syria	NPL Syria / RRL Egypt	334	2		22	290	20															6%	100%			17-Nov-22
Tunisia	RRL Tunisia	37				37																1%	100%		95%	19-Nov-22
U.A.E	NPL Oman / CDC	49			1	41	7															1%	76%		67%	15-Nov-22
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	1004	176	5	167	622		34		10			8	150**		22		9	1	1		16%	25%	36%	6%	14-Nov-22
Total EMR 2022		25196	922	107	4196	19087	688	164	22	468	1		28	158		625		10	7	2	8	15%	93%	88%	93%	
Total EMR 2021		22113	1183	128	3874	16919		4	5	478	7		363	117		599	1	1	7	2	2	14%	97%	97%	93%	

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

** Four cVDPV2 cases are identified by positive contacts (Index cases were negative for cVDPV2)

Environmental Surveillance Isolation by Classification

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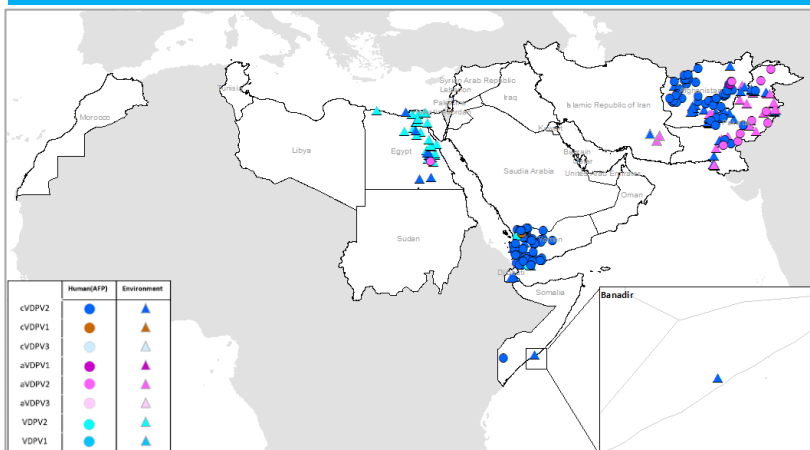


	AFG		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SOM		SUD		SYR		YEM		SSA	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Wild		11			45	32																						
cVDPV2	39		5	12	19		12	6	1										1	3					13	3		
Wild+cVDPV2	1				16																							
Wild+aVDPV2					4																							
Wild+aVDPV3																												
aVDPV1																												
aVDPV2	3				33	1			2																			
aVDPV3																												
VDPV1					1		1																					
VDPV2							67	1		1			3							1								
SL2	145	68			266	16	192		9	4									2	14	4							
SL1/3	44	128	2		151	315	168	217	16	21		1	18	14			9	20	10	2	1	2	28	24	1		3	
Entero	235	367	6	4	314	587	265	244	42	32		54	14	24	7	2	36	23	60	36	53	65	162	134	1		6	
Negative	12	18	13	8	9	15	26	23	1	1			3	22	16	17	5	13	67	85	41	43	14	17				
Pending		10		14		31		21		1		2		7		5		4		46		16		10		26		

VDPVs isolations by Source and Country

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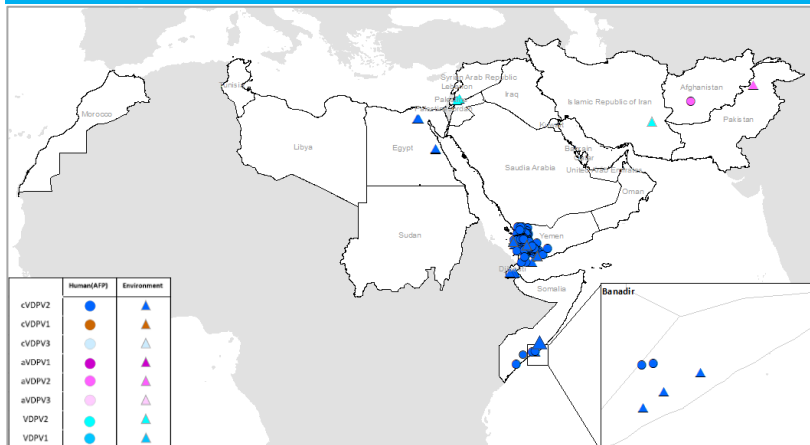
VDPV Isolates, EMR countries, 2021



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	12		22-05-22							
	Egypt																		12	6		29-08-22							
	Iran																		3	1		20-02-21							
	Pakistan			22	135	8		23-04-21										38	135	35		11-08-21							
	Somalia		6	3	14	1	4	17-07-22		3	1	11		3	22-02-22	2	19	5	26	1	3	19-05-22			1	5		1	10-03-22
	Sudan				58			18-12-20				18			08-10-20				14			09-11-20				4			24-08-20
	Syria	74						21-09-17	63						12-09-17								4						20-08-17
Yemen				66	154		25-09-22				23	36		05-08-22				13	3		31-01-22								
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			21-09-20							
	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							

VDPV Isolates, EMR countries, 2022



Important links

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Important Links

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