

EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1319, Week 02 (ending on 14/01/2024)

Highlights



Children
Paralyzed
by polio

2022

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

- 168 cases of cVDPV2
 - 05 in Somalia
 - 162 in Yemen
 - 01 in Sudan

- Zero cVDPV1 cases

2023

- 12 cases of Wild Polio 1
 - 06 in Afghanistan
 - 06 in Pakistan

- 8 cases of cVDPV2
 - 05 in Somalia
 - 03 in Yemen

- Zero case of cVDPV1



Sewage
water
sampling

2022

- 59 samples Wild Polio 1
 - 22 in Afghanistan
 - 37 in Pakistan

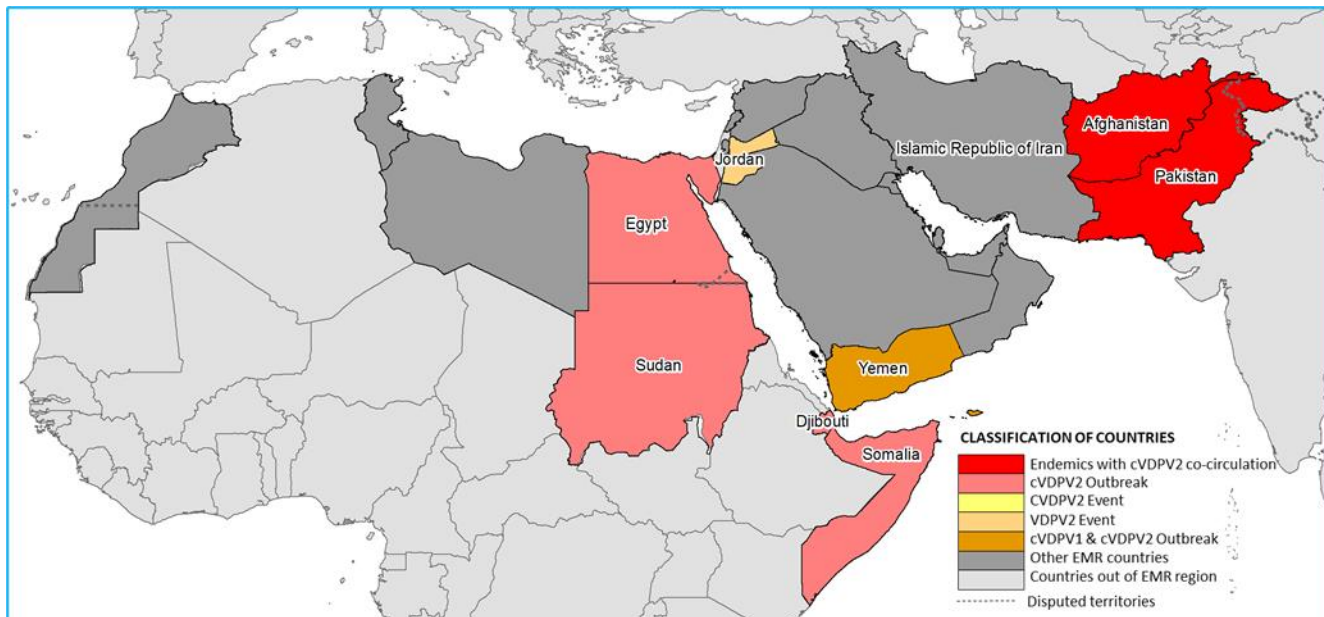
- 51 samples cVDPV2
 - 06 in Egypt
 - 12 in Djibouti
 - 06 in Somalia
 - 01 in Sudan
 - 26 in Yemen

2023

- 177 samples Wild Polio 1
 - 62 in Afghanistan
 - 115 in Pakistan

- 26 samples of cVDPV2
 - 09 in Somalia
 - 10 in Yemen
 - 07 in Egypt

Classification of EMR countries by type of poliovirus circulation



Highlights of the week

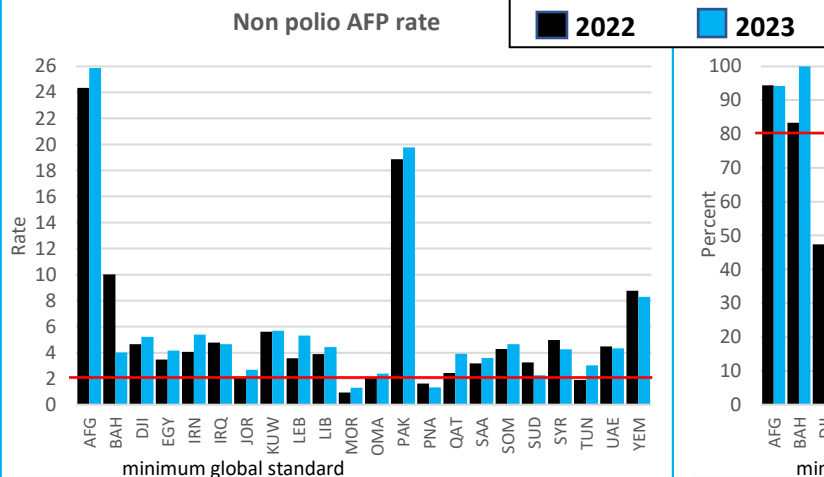
Wild Poliovirus

- No new WPV1 case reported this week. The WPV1 cases count in 2023 to date is 12 (6 each from Afghanistan and Pakistan) and in 2022, the WPV1 cases count remains 22 cases (2 from Afghanistan and 20 from Pakistan).
- Ten new WPV1 positive environmental samples (ES) reported this week (7 from Afghanistan and 3 from Pakistan).
 - Afghanistan: Three from Kandahar province (all from Kandahar district), Two from Nangarhar province (one each from Jalalabad and Behsud districts), and one each from Hilmand province (Lashkargah district) and Uruzgan province (Tirinkot district). Hilmand and Uruzgan are newly infected provinces in 2023.
 - Pakistan: One each from Rawalpindi district in Punjab, Karachi East district in Sindh and Islamabad (from CDA).
 - Samples collection dates of all samples are in December 2023. Total WPV1 positive environmental samples' count in 2023 to date is 177 (62 in Afghanistan and 115 in Pakistan). In 2022, the count remains 59 (22 in Afghanistan and 37 in Pakistan).

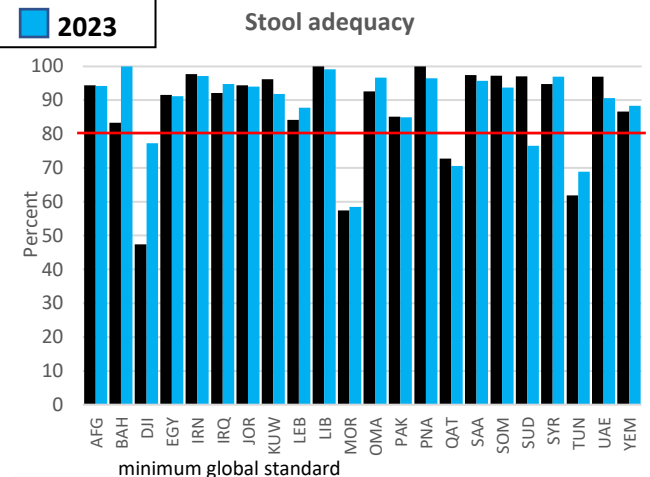
Vaccine derived poliovirus (VDPV)

- No new cVDPV2 isolates reported this week. The count of cVDPV2 cases in 2023 to date is 8 (5 from Somalia and 3 from Yemen) and in 2022 the count remains to be 168 cases (1 from Sudan, 5 from Somalia and 162 from Yemen), while the cVDPV2 positive environmental samples count in 2023 to date is 26 (10 from Yemen, 9 from Somalia and 7 from Egypt). In 2022, the count remains 51 (1 in Sudan, 6 in each of Egypt and Somalia, 12 in Djibouti and 26 in Yemen).

Non polio AFP rate



Stool adequacy

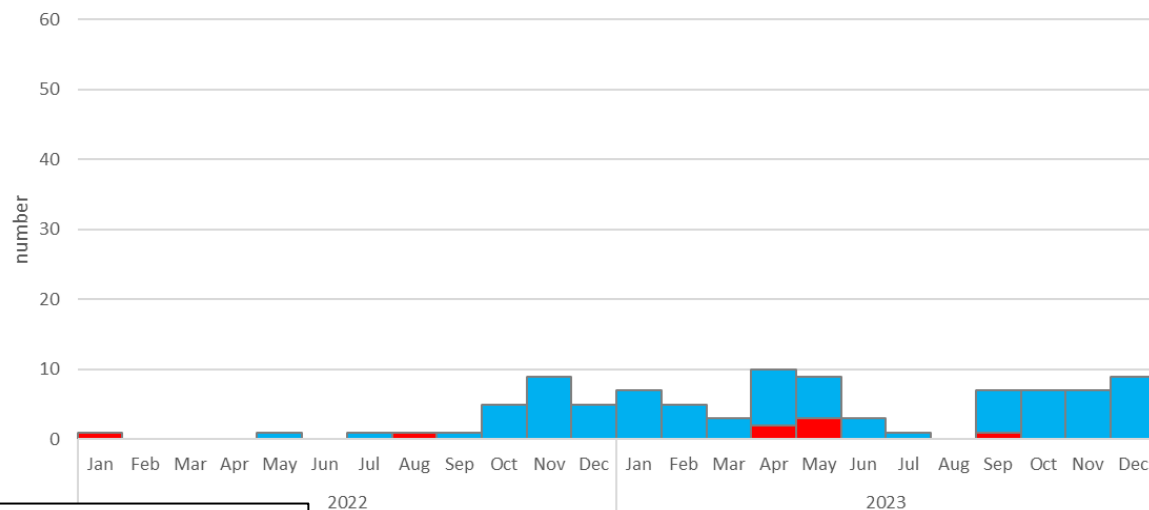


Wild Poliovirus type-1 (WPV1) Vaccine-derived Poliovirus (VDPV)

WPV1 Positive isolates from Afghanistan and Pakistan by source

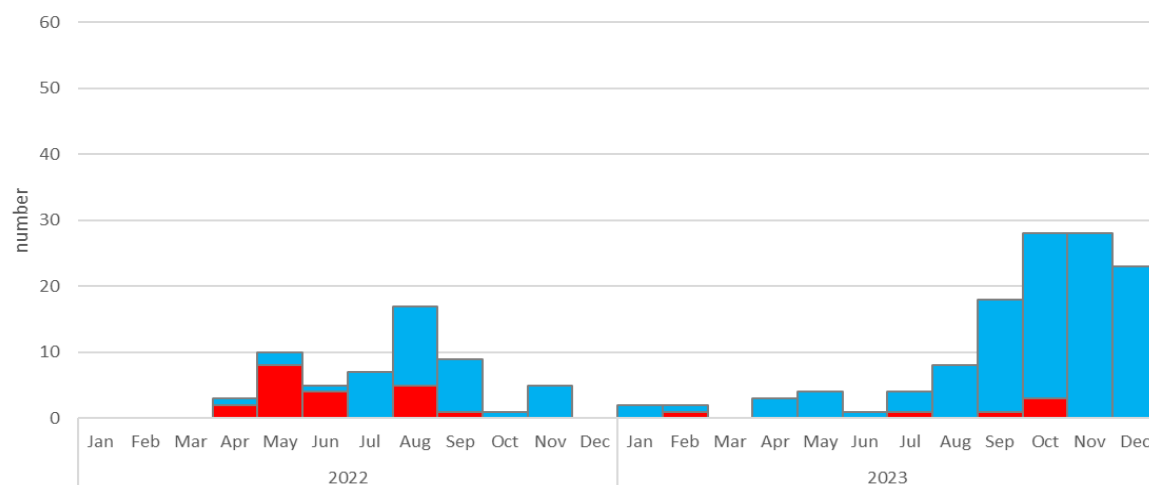
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Afghanistan

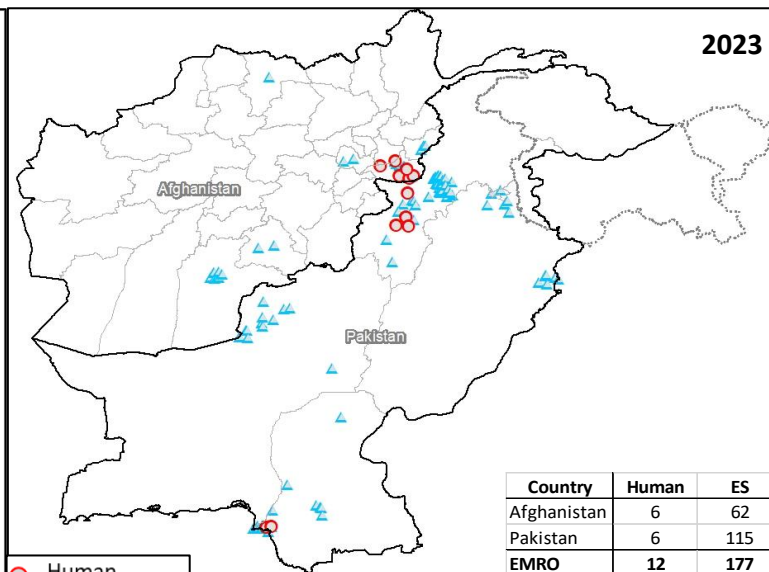


■ Human ■ Environment

Pakistan



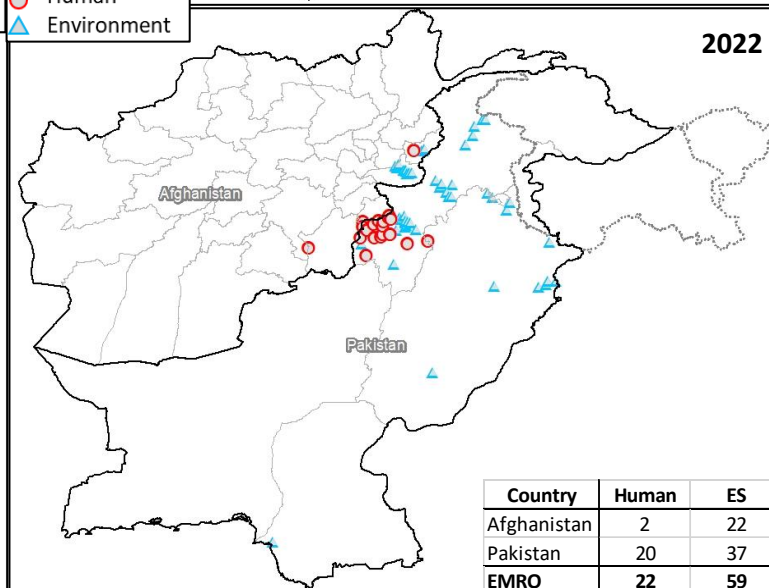
2023



○ Human
▲ Environment

Country	Human	ES
Afghanistan	6	62
Pakistan	6	115
EMRO	12	177

2022



Country	Human	ES
Afghanistan	2	22
Pakistan	20	37
EMRO	22	59

Virus isolation by country, last 12 months (Jan. 15, 2023, to Jan. 14, 2024)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
Human (AFP only)	6	6	1	4		4	21
Wild	6	6					12
cVDPV2				4		3	7
aVDPV2							
VDPV2			1			1	2
VDPV3							
Environment	59	115	12	9	4	12	211
Wild	59	114					173
cVDPV2			7	9		10	26
aVDPV2			4				4
VDPV2			1		4	2	7
VDPV3		1					1
Total	65	121	13	13	4	16	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 2022	Total year 2023	14 January		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2023												
			2023	2024	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
Afghanistan	2	6	0	0	0	0	2	3	0	0	0	1	0	0			04-Sep-23
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	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	0		
Lebanon ****	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				
Morocco	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	20	6	0	0	1	0	0	0	0	1	0	1	3	0			24-Oct-23
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	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	0			
Tunisia	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	0					
EMR	22	12	0	0	1	0	2	3	0	1	0	2	3	0	0	0	24-Oct-23

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

Investigation of AFP cases with paralysis onset in 2022 & 2023

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COUNTRY	2024									2023									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	48	0	0	0	0	0	0	5.45	100.00	5833	6	0	5634	0	9	0	25.87	94.24	14-Jan-24
BAHRAIN	0	0	0	0	0	0	0	0.00		12	0	0	10	0	2	1	4.01	100.00	14-Jan-24
DJIBOUTI	0	0	0	0	0	0	0	0.00		22	0	0	9	0	2	0	5.23	77.27	14-Jan-24
EGYPT	30	0	0	0	0	0	0	1.90	43.33	1714	0	0	1611	1	16	0	4.16	91.19	12-Jan-24
IRAN	0	0	0	0	0	0	0	0.00		1140	0	0	1092	0	0	0	5.40	97.11	14-Jan-24
IRAQ	13	0	0	0	0	0	0	1.93	92.31	817	0	0	795	0	9	0	4.65	94.74	13-Jan-24
JORDAN	0	0	0	0	0	0	0	0.00		116	0	0	111	0	0	0	2.68	93.97	4-Jan-24
KUWAIT	2	0	0	0	0	0	0	6.06	0.00	49	0	0	49	0	0	0	5.69	91.84	14-Jan-24
LEBANON	2	0	0	0	0	0	0	3.38	50.00	82	0	0	61	0	10	4	5.31	87.80	7-Jan-24
LIBYA	0	0	0	0	0	0	0	0.00		115	0	0	97	0	0	0	4.43	99.13	6-Jan-24
MOROCCO	4	0	0	0	0	0	0	0.91	50.00	154	0	0	42	0	66	13	1.31	58.44	12-Jan-24
OMAN	0	0	0	0	0	0	0	0.00		30	0	0	30	0	0	0	2.38	96.67	14-Jan-24
PAKISTAN	65	0	0	0	0	0	0	1.74	93.85	19332	6	0	18373	0	211	0	19.76	84.94	14-Jan-24
PALESTINE	0	0	0	0	0	0	0	0.00		28	0	0	21	0	0	0	1.35	96.43	14-Jan-24
QATAR	0	0	0	0	0	0	0	0.00		17	0	0	11	0	4	0	3.91	70.59	14-Jan-24
SAUDI ARABIA	6	0	0	0	0	0	0	1.87	100.00	300	0	0	264	0	1	0	3.59	95.67	14-Jan-24
SOMALIA	6	0	0	0	0	0	0	1.74	100.00	417	0	0	386	5	1	0	4.64	93.76	14-Jan-24
SUDAN	1	0	0	0	0	0	0	0.13	100.00	472	0	0	355	0	29	3	2.27	76.48	14-Jan-24
SYRIA	2	0	0	0	0	0	0	0.67	100.00	331	0	0	321	0	0	0	4.26	96.98	13-Jan-24
TUNISIA	0	0	0	0	0	0	0	0.00		90	0	0	83	0	0	0	3.02	68.89	5-Jan-24
U.A.E.	0	0	0	0	0	0	0	0.00		64	0	0	52	0	0	0	4.34	90.63	9-Jan-24
YEMEN	28	0	0	0	0	0	0	4.58	75.00	1326	0	0	1084	4	20	1	8.30	88.31	13-Jan-24
EMR POL	207	0	0	0	0	0	0	1.85	83.57	32461	12	0	30491	10	380	22	11.13	87.92	

* 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 2023

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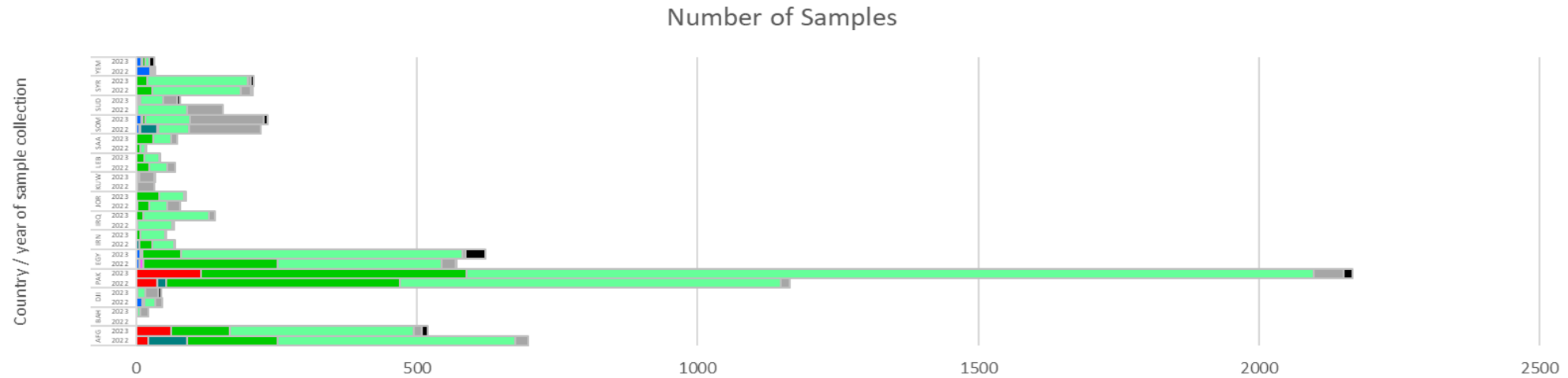
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results													Indicators				Latest report Date
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant 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	5798	310	30	797	4512	141	3	5 *	205						249			2	2	10	12%	94%	100%	98%	14-Jan-24
Bahrain	NPL Oman / CDC	11			1	10																5%	100%		45%	14-Jan-24
Djibouti	NPL Kenya / CDC	22			2	12		8														14%	53%		79%	14-Jan-24
Egypt	RRL Egypt	1656	17		189	1402	37	12		9				1		12				1		10%	93%	100%	99%	11-Jan-24
Iran	NPL Iran / CDC	1155	8		8	1128	10	1		6						3						1%	100%	100%	99%	13-Jan-24
Iraq	NPL Iraq, RRL Egypt	817	6		63	734	3	11		5						2						8%	100%	100%	99%	12-Jan-24
Jordan	NPL Jordan, RRL Egypt	115			18	97																15%	96%		100%	14-Jan-24
Kuwait	RRL Kuwait / RIVM	52	1		8	39	2	2												1		13%	98%		100%	11-Jan-24
Lebanon	NPL Syria, RRL Egypt	78			2	76																5%	100%			07-Jan-24
Libya	RRL Tunisia / RIVM	113	1		3	105	4			1												3%	95%	1	100%	12-Jan-24
Morocco	NPL Morocco, RRL Tunisia	140			3	127	5	5														3%	99%		95%	12-Jan-24
Oman	NPL Oman / CDC	30			1	29																7%	100%		100%	14-Jan-24
Pakistan	RRL Pakistan	18823	571	47	2853	14958	354	21	4 *	388						444						13%	94%	100%	96%	14-Jan-24
Palestine & UNRWA		28	2			25		1		2			2			1						0%	40%		100%	14-Jan-24
Qatar	NPL Oman / CDC	17	1			16										1						0%	100%	1	100%	14-Jan-24
Saudi Arabia	NPL Saudi Arabia / CDC	302	3		6	292		1		3						2						2%	98%	67%	100%	11-Jan-24
Somalia	NPL Kenya / CDC	416	14		62	314	4	22		4			2	5		2						16%	4%		95%	14-Jan-24
Sudan	NPL Sudan / RRL Egypt	443	10	1	88	326		17					3			2			2			18%	94%	100%	33%	14-Apr-23
Syria	NPL Syria / RRL Egypt	326	5	1	31	283	6															9%	100%			07-Jan-24
Tunisia	RRL Tunisia	100	1		3	94	2									1						3%	97%	1	97%	12-Jan-24
U.A.E	NPL Oman / CDC	51			3	48																6%	96%		27%	14-Jan-24
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	1144	28	2	231	877		6		11			1	4		20		2				17%	20%	100%	20%	13-Jan-24
Total EMR 2023		31637	978	81	4372	25504	568	110	12 *	634			8	10		739		2	4	3	11	12%	90%	100%	93%	
Total EMR 2022		30461	1068	119	4831	24435		2	22 *	556	2		38	169 **		723		6	8	2	1	13%	93%	89%	92%	

* In 2023 – Two WPV1 cases are confirmed due to positive contacts while in 2022 - three WPV1 cases were confirmed due to positive contacts (Index cases were negative for WPV1)

** In 2022 – Five cVDPV2 cases are identified by positive contacts (Index cases were negative for cVDPV2)

Environmental Surveillance Isolation by Classification

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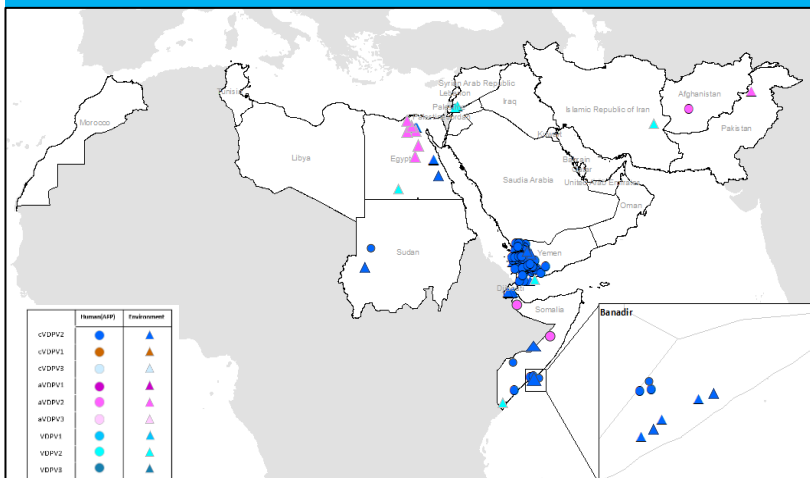


	AFG		BAH		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SAA		SOM		SUD		SYR		YEM	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Wild	22	62					37	115																						
cVDPV2					12				6	7													6	9	1				26	10
Wild+cVDPV2																														
Wild+aVDPV2																														
Wild+aVDPV3																														
aVDPV1																														
aVDPV2							1		7	4																				
aVDPV3																														
VDPV1																														
VDPV2										1	1				2								1			4			3	2
VDPV3								1																						
SL2	68				2		16				4											30	2		1				1	
SL1/3	162	105		3	2	415	472	239	68	23	7	3	13	22	41		2	24	15	7	31	2	5	2	3	28	20	2	5	
Entero	424	328		5	21	14	679	1510	292	501	39	45	61	116	32	45	2	3	32	27	9	32	55	80	88	41	159	179	1	6
Negative	22	14		13	11	24	17	53	25	6	1	1	4	11	23	3	31	27	13	1	2	10	128	132	63	25	18	6		
Pending		10				4		16	1	36								3					7		5	3	4			9

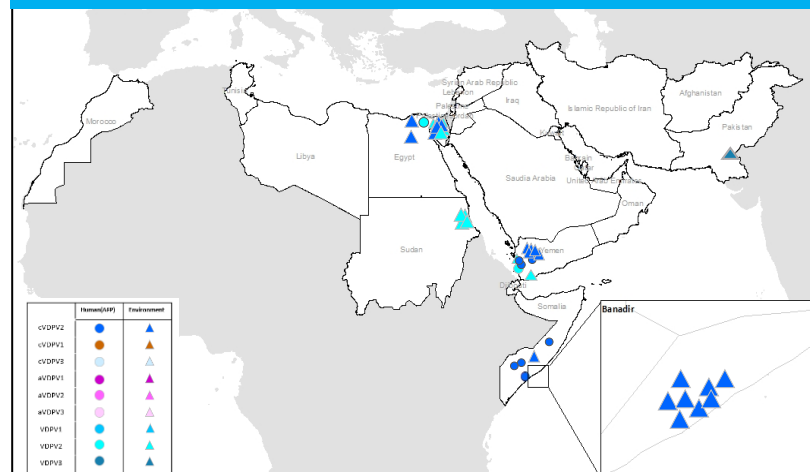
VDPVs isolations by Source and Country

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VDPV Isolates, EMR countries, 2022



VDPV Isolates, EMR countries, 2023



VDPVs isolated from 2018-2023

VDPV Isolate type	EMR Country	Sources																												
		AFP cases(Human)						Contacts(Human)						Environment						Other Sources (Healthy Children)										
		2018	2019	2020	2021	2022	2023	Most recent	2018	2019	2020	2021	2022	2023	Most recent	2018	2019	2020	2021	2022	2023	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	7	13-11-23								
	Iran																	3	1			20-02-21								
	Pakistan	22	135	8				23-04-21										38	135	35		11-08-21								
	Somalia	6	3	14	1	5	5	16-09-23	3	1	11		6	3	03-08-23	19	5	26	1	6	9	26-10-23		1	5		1			10-03-22
	Sudan			58		1		31-10-22			18				08-10-20			14		1		28-11-22			4					24-08-20
Yemen				66	162	3	28-08-23					23	40	1	11-06-23				13	26	10	25-09-23								
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			14-06-21			1	67	7	4	13-04-23								
	Iran																		2			23-09-21								
	Pakistan			7	8			24-09-21		8	19	1			28-04-21		3	22	37	1		15-02-22								
	Somalia					2		01-09-22				1			22-08-22	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						1	17-07-23													1	12-12-23								
	Iran																			1		04-02-22								
	Jordan																			2		25-05-22								
	Somalia					1		01-09-22												1		22-04-22								
	Sudan																				4	30-11-23								
	Yemen						1	09-05-23												3	2	27-05-23								
VDPV3	Pakistan																			1	14-02-23									

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)
- [Certification \(e-ACR\)](#) (restricted to registered users)