

## Highlights



Children  
Paralyzed  
by polio

**2023**

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

15 cases of cVDPV2

- 08 in Somalia
- 07 in Yemen

Zero cVDPV1 cases

**2024**

Zero cases of Wild Polio 1

Zero cases of cVDPV2

Zero cVDPV1 cases



Sewage  
water  
sampling

**2023**

- 188 samples Wild Polio 1
  - 62 in Afghanistan
  - 126 in Pakistan

35 samples cVDPV2

- 11 in Egypt
- 10 in Yemen
- 09 in Somalia
- 05 in Sudan

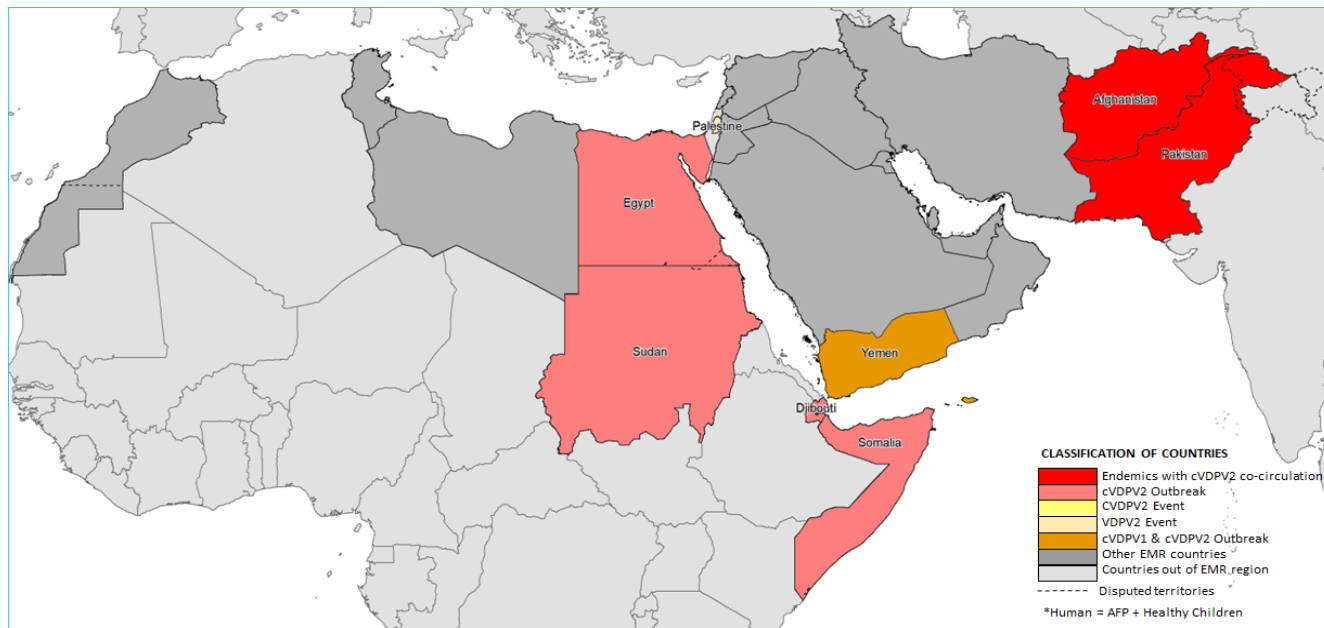
**2024**

- 34 samples Wild Polio 1
  - 34 in Pakistan

2 sample cVDPV2

- 1 in Sudan
- 1 in Egypt

## Classification of EMR countries by type of poliovirus circulation



## Highlights of the week

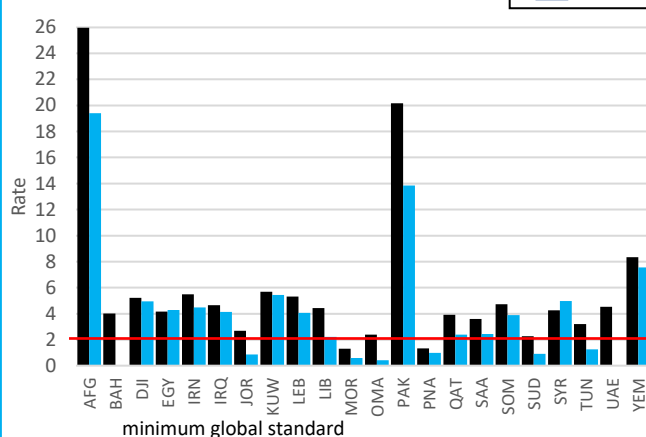
### Wild Poliovirus

- No new WPV1 isolates reported this week. Wild case count for 2023 remains 12 (6 each from Afghanistan and Pakistan). No wild case is reported in 2024. The count of the WPV1 positive environmental samples in 2024 to date is 34 (all from Pakistan) and in 2023 the count remains to be 188 (62 in Afghanistan and 126 in Pakistan).
- Advance notification:** 12 new WPV1 positive environmental samples were reported this week (all are from Pakistan in 2024). The details are as follows: 6 from Sindh province, 2 each from Khyber Pakhtunkhwa and Balochistan provinces, and one each from Punjab and Islamabad provinces. Details will be included in the next weekly polio bulletin.

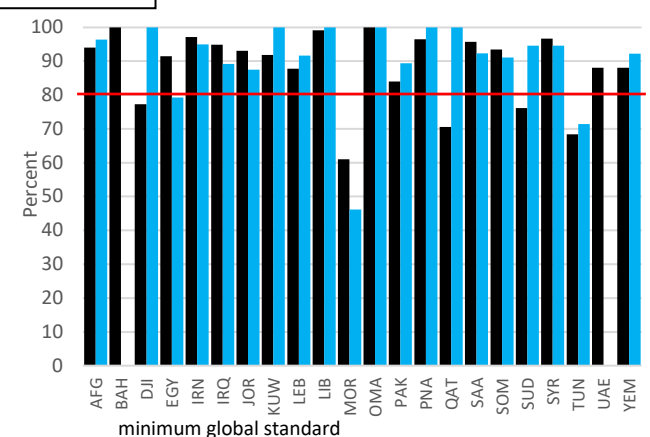
### Vaccine derived poliovirus (VDPV)

- Human cases:** Two new cVDPV2 cases reported this week from Yemen. One from Alryasheiah district of Albaidah province with date of onset 10<sup>th</sup> December 2023 and the other from Alganawis district of Alhudaidah province with date of onset 11<sup>th</sup> December 2023. Total cases count of cVDPV2 in 2023 is to date 15 (8 from Somalia and 7 from Yemen).
- Environmental samples (ES):**
  - No new cVDPV2 positive environmental samples reported this week; The total count in 2024 is 2 (one each from Egypt and Sudan). In 2023 the count remains 35 (11 from Egypt, 10 from Yemen, 9 from Somalia, and 5 from Sudan).
  - One new VDPV2 positive environmental sample reported this week from Sudan. The new VDPV2 ES was reported from Kosti district of White Nile province with collection date on 24<sup>th</sup> January 2024.

### Non polio AFP rate

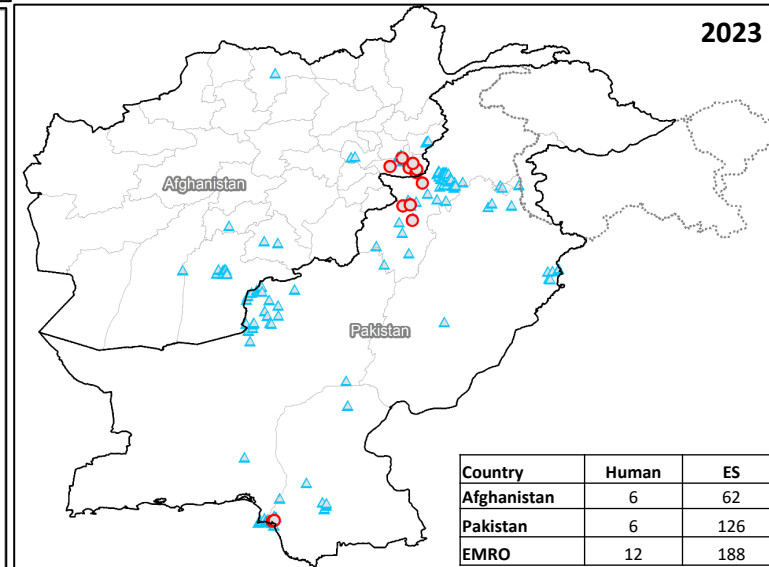
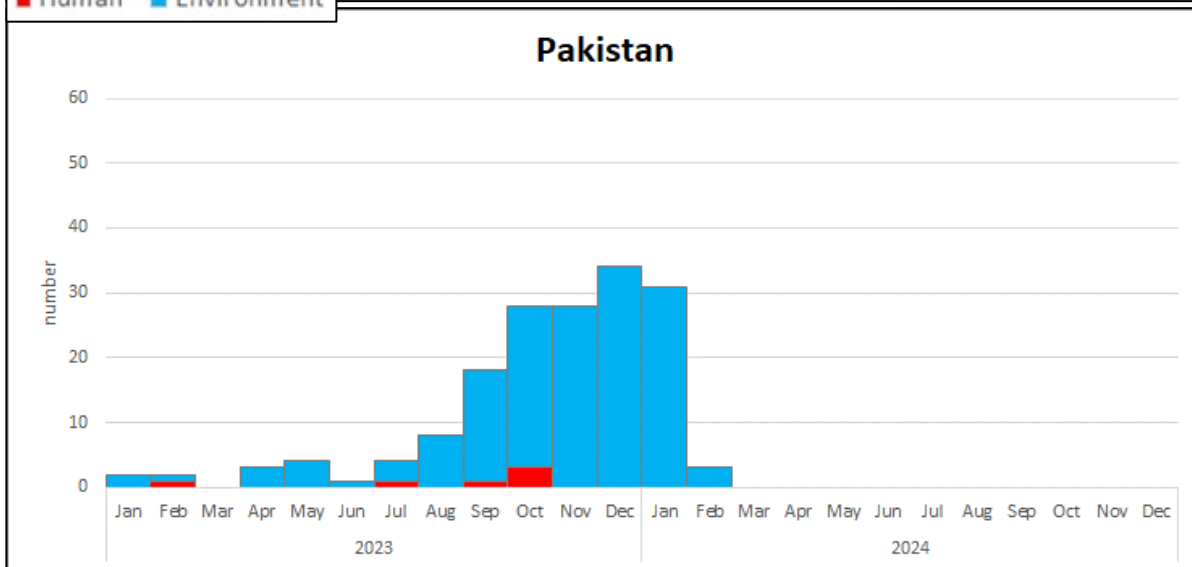
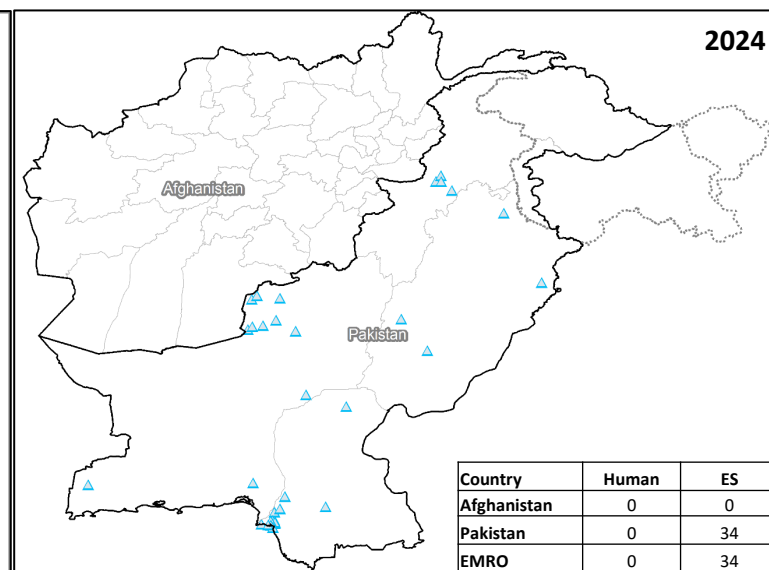
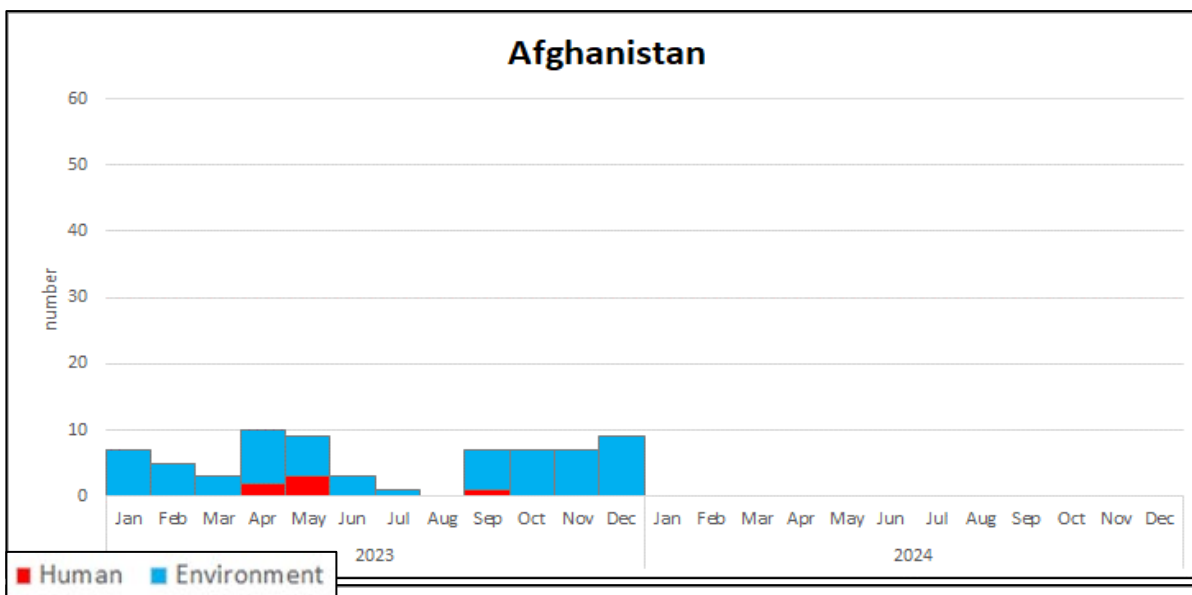


### Stool adequacy



# WPV1 Positive isolates from Afghanistan and Pakistan by source

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## Virus isolation by country, last 12 months (10 Mar. 2023, to 10 Mar. 2024)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
<b>Human (AFP only)</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>6</b>		<b>8</b>	<b>26</b>
Wild	6	5					11
cVDPV2				6		7	13
aVDPV2						1	1
VDPV2			1				1
VDPV3							
<b>Environment</b>	<b>48</b>	<b>157</b>	<b>14</b>	<b>9</b>	<b>7</b>	<b>11</b>	<b>246</b>
Wild	48	157					205
cVDPV2			12	9	6	9	36
aVDPV2			2				2
VDPV2					1	2	3
VDPV3							
<b>Total</b>	<b>54</b>	<b>162</b>	<b>15</b>	<b>15</b>	<b>7</b>	<b>19</b>	<b>272</b>

*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	10 March		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2023									2024			
			2023	2024	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Afghanistan	2	6	0	0	2	3	0	0	0	1	0	0	0				04-Sep-23
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	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	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									
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	20	6	1	0	0	0	0	1	0	1	3	0	0	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			
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	0	0				
Sudan	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	0	0	0		
Yemen	0	0	0	0	0	0	0	0	0	0							
EMR	22	12	1	0	2	3	0	1	0	2	3	0	0	0	0	0	24-Oct-23

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

# Investigation of AFP cases with paralysis onset in 2023 & 2024

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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	837	0	0	255	0	0	0	19.40	96.42	5853	6	0	5840	0	3	0	25.96	94.04	10-Mar-24
BAHRAIN	0	0	0	0	0	0	0	0.00		12	0	0	11	0	1	0	4.01	100.00	10-Mar-24
DJIBOUTI	4	0	0	3	0	0	0	4.96	100.00	22	0	0	22	0	0	0	5.23	77.27	10-Mar-24
EGYPT	338	0	0	169	0	0	0	4.28	79.29	1714	0	0	1690	1	22	0	4.16	91.48	7-Mar-24
IRAN	180	0	0	154	0	0	0	4.48	95.00	1150	0	0	1150	0	0	0	5.48	97.13	9-Mar-24
IRAQ	139	0	0	99	0	0	0	4.13	89.21	820	0	0	820	0	0	0	4.66	94.88	8-Mar-24
JORDAN	8	0	0	6	0	0	0	0.86	87.50	116	0	0	116	0	0	0	2.68	93.10	7-Mar-24
KUWAIT	9	0	0	8	0	0	0	5.45	100.00	49	0	0	49	0	0	0	5.69	91.84	10-Mar-24
LEBANON	12	0	0	7	0	0	0	4.05	91.67	82	0	0	75	0	7	0	5.31	87.80	2-Mar-24
LIBYA	11	0	0	2	0	0	0	2.21	100.00	115	0	0	115	0	0	0	4.43	99.13	2-Mar-24
MOROCCO	13	0	0	0	0	0	0	0.59	46.15	154	0	0	42	0	93	20	1.31	61.04	5-Feb-24
OMAN	1	0	0	1	0	0	0	0.41	100.00	30	0	0	30	0	0	0	2.38	100.00	7-Mar-24
PAKISTAN	2600	0	0	2009	0	0	0	13.84	89.38	19714	6	0	19430	0	174	0	20.15	84.01	10-Mar-24
PALESTINE	4	0	0	0	0	0	0	1.00	100.00	28	0	0	26	0	1	0	1.35	96.43	10-Mar-24
QATAR	2	0	0	0	0	0	0	2.40	100.00	17	0	0	17	0	0	0	3.91	70.59	3-Mar-24
SAUDI ARABIA	39	0	0	0	0	0	0	2.44	92.31	301	0	0	301	0	0	0	3.60	95.68	10-Mar-24
SOMALIA	67	0	0	51	0	0	0	3.89	91.04	424	0	0	416	8	0	0	4.72	93.40	10-Mar-24
SUDAN	37	0	0	0	0	0	0	0.92	94.59	473	0	0	407	0	54	5	2.28	76.11	3-Mar-24
SYRIA	74	0	0	54	0	0	0	4.98	94.59	332	0	0	332	0	0	0	4.27	96.69	9-Mar-24
TUNISIA	7	0	0	0	0	0	0	1.26	71.43	95	0	0	95	0	0	0	3.20	68.42	10-Mar-24
U.A.E.	0	0	0	0	0	0	0	0.00		67	0	0	66	0	0	0	4.54	88.06	4-Mar-24
YEMEN	231	0	0	42	0	0	0	7.56	92.21	1331	0	0	1262	8	41	33	8.33	88.05	9-Mar-24
EMR POL	4613	0	0	2860	0	0	0	8.25	90.38	32899	12	0	32312	17	396	58	11.28	87.30	

\* 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 2024

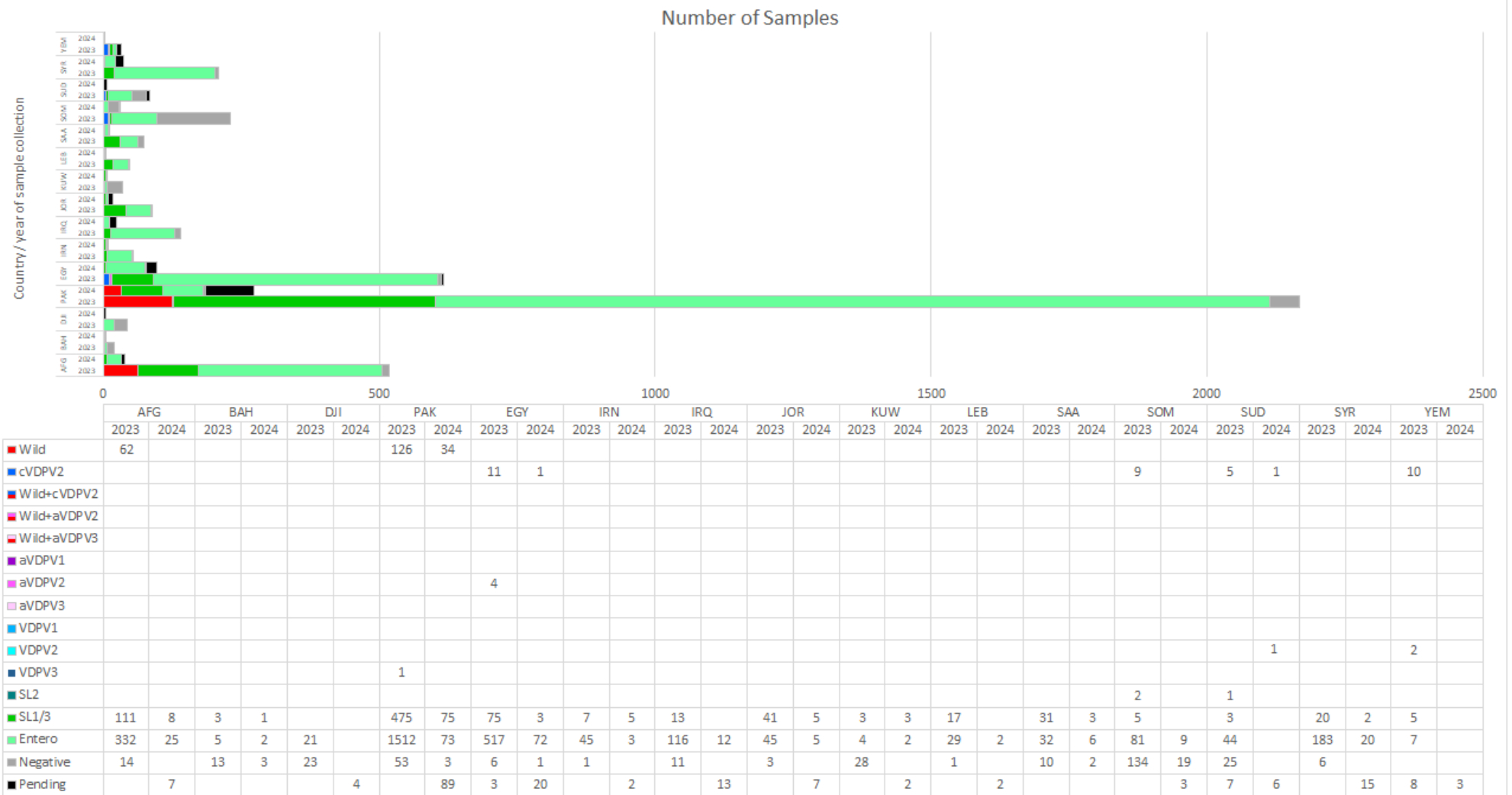
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Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results													Indicators				Latest report Date
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV 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 48 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	443	12	2	31	212		1		8						10						9%	100%	100%	100%	10-Mar-24
Bahrain	NPL Oman / CDC																									10-Mar-24
Djibouti	NPL Kenya / CDC	4				3	1															0%	33%		100%	10-Mar-24
Egypt	RRL Egypt	301	3		10	224	64			1						2						4%	98%	100%	100%	8-Mar-24
Iran	NPL Iran / CDC	199	1		2	173	23			1						1						1%	99%	100%	100%	9-Mar-24
Iraq	NPL Iraq, RRL Egypt	144	4		19	92	21	8		2						2						18%	100%	100%	99%	7-Mar-24
Jordan	NPL Jordan, RRL Egypt	7				6	1															0%	67%		100%	7-Mar-24
Kuwait	RRL Kuwait / RIVM	10	1		1	7	1													1		6%	78%		100%	7-Mar-24
Lebanon	NPL Syria, RRL Egypt	7				7																0%	100%			7-Mar-24
Libya	RRL Tunisia / RIVM	2				2																0%	100%		100%	14-Feb-24
Morocco	NPL Morocco, RRL Tunisia	23				18	5															0%	100%		100%	8-Mar-24
Oman	NPL Oman / CDC	1				1																0%	100%		100%	10-Mar-24
Pakistan	RRL Pakistan	2554	120	2	196	1706	309	163		68						87						7%	100%	100%	99%	10-Mar-24
Palestine & UNRWA		4				4																0%	25%		100%	10-Mar-24
Qatar	NPL Oman / CDC	2				2																0%	100%		100%	10-Mar-24
Saudi Arabia	NPL Saudi Arabia / CDC	33	1		1	25		6											1			3%	93%	0%	100%	29-Feb-24
Somalia	NPL Kenya / CDC	67	2		6	43	7	9		1		1				1						12%	2%		88%	10-Mar-24
Sudan	NPL Sudan / RRL Egypt	13			3	10																23%	100%		69%	14-Apr-23
Syria	NPL Syria / RRL Egypt	73			1	56	16															3%	100%			7-Mar-24
Tunisia	RRL Tunisia	5				1		4														0%	100%		100%	14-Feb-24
U.A.E	NPL Oman / CDC																					0%				10-Mar-24
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	99	3		18	76	2			1						1		1				16%	60%	100%	28%	9-Mar-24
Total EMR 2024		3991	147	4	288	2668	450	191		82		1				104		1		1	1	7%	96%	99%	97%	
Total EMR 2023		32118	1011	81	4502	26478	2	37	12 *	656		4	8	16		766		1	4	3	1	12%	91%	100%	93%	

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

# Environmental Surveillance Isolation by Classification

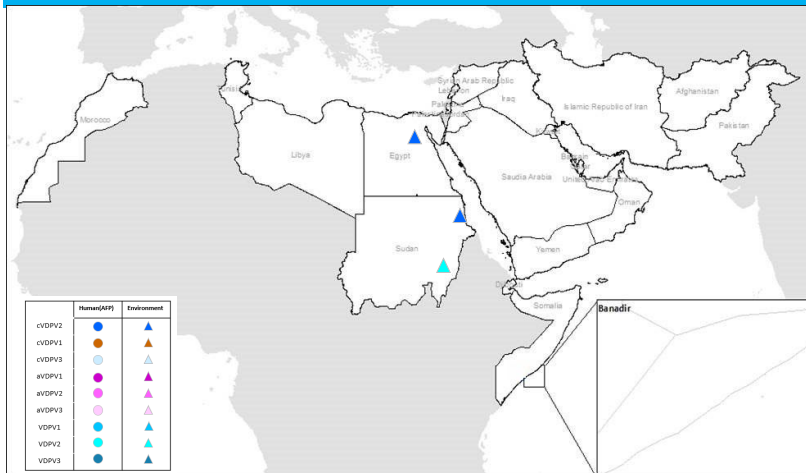
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# VDPVs isolations by Source and Country

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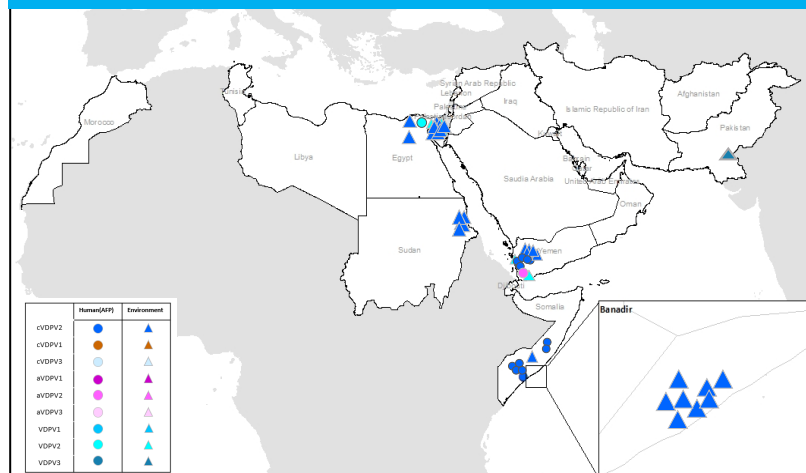
## VDPV Isolates, EMR countries, 2024



## VDPVs isolated from 2019-2024

Isolate type	EMR Country	Sources																										
		AFP cases(Human)						Contacts(Human)						Environment						Other Sources (Healthy Children)								
		2019	2020	2021	2022	2023	2024	Most recent	2019	2020	2021	2022	2023	2024	Most recent	2019	2020	2021	2022	2023	2024	Most recent	2019	2020	2021	2022	2023	Most recent
cVDPV2	Afghanistan	307	43					09-07-21									174	40				23-06-21						
	Djibouti																	5	12			22-05-22						
	Egypt																	12	6	11	1	31-01-24						
	Iran																3	1				20-02-21						
	Pakistan	22	135	8				23-04-21									38	135	35			11-08-21						
	Somalia	3	14	1	5	8		15-12-23	1	11		6	3		03-08-23	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	5	1	11-01-24		4				24-08-20	
	Yemen			66	162	7		11-12-23			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							07-09-18							30-06-18							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	1						03-02-19						
	Yemen			3		1		05-09-23			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																				
	Iran																1					04-02-22						
	Jordan																	2				25-05-22						
	Somalia				1			01-09-22										1				22-04-22						
	Sudan																			1		24-01-24						
	Yemen																	3	2			27-05-23						
VDPV3	Pakistan																		1			14-02-23						

## VDPV Isolates, EMR countries, 2023





# 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)