

## 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**

- 9 cases of Wild Polio 1
  - 06 in Afghanistan
  - 03 in Pakistan

- 5 cases of cVDPV2
  - 03 in Somalia
  - 02 in Yemen

- Zero case of cVDPV1



Sewage  
water  
sampling

**2022**

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

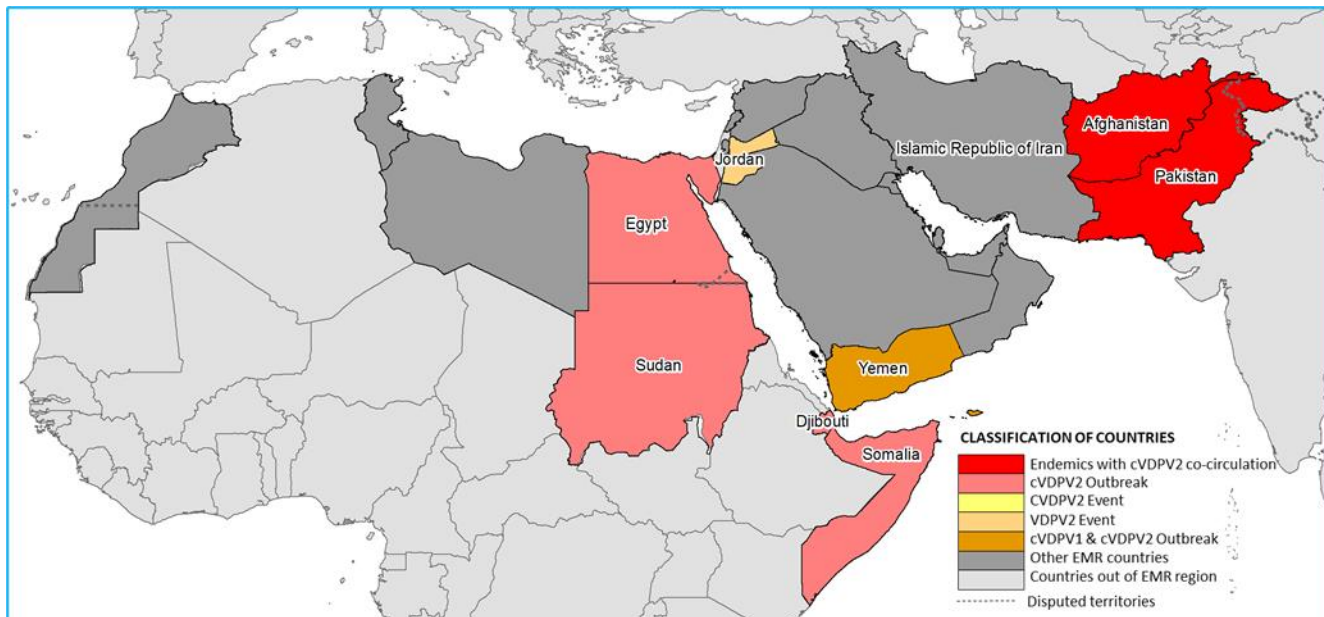
- 52 samples cVDPV2
  - 06 in Egypt
  - 12 in Djibouti
  - 06 in Somalia
  - 01 in Sudan
  - 27 in Yemen

**2023**

- 74 samples Wild Polio 1
  - 39 in Afghanistan
  - 35 in Pakistan

- 11 samples of cVDPV2
  - 05 in Somalia
  - 03 in Yemen
  - 03 in Egypt

## Classification of EMR countries by type of poliovirus circulation



## Highlights of the week

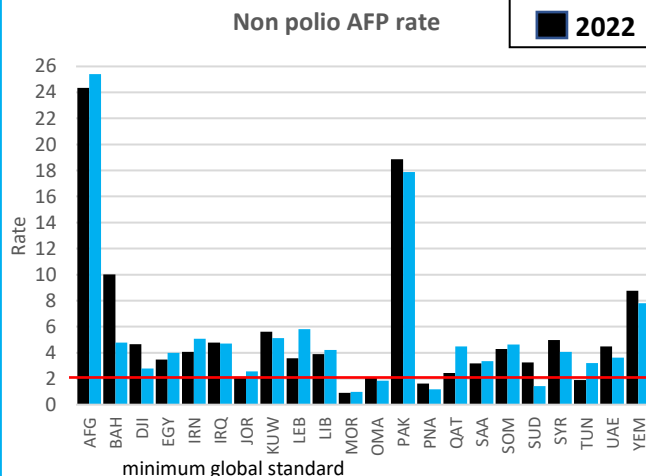
### Wild Poliovirus

- One new WPV1 case reported this week from Pakistan. The new WPV1 case reported from Bannu district of Khyber Pakhtunkhwa province with date of onset 21<sup>st</sup> September 2023. The WPV1 cases count in 2023 to date is 9 (6 from Afghanistan and 3 from Pakistan) while in 2022, the WPV1 cases count remains to be 22 cases (2 from Afghanistan and 20 from Pakistan).
- Nine newly WPV1 positive environmental samples were reported this week from Afghanistan (6) and Pakistan (3). The newly six reported positive samples from Afghanistan are: three from Nangarhar province (2 from Jalalabad district and 1 from Behsud district), two both from Kandahar district of Kandahar province and one from Kabul district of Kabul province. Dates of collection varies between 20<sup>th</sup> to 21<sup>st</sup> September 2023. While the newly three reported positive samples from Pakistan are: two from Khyber Pakhtunkhwa province (one each from Bannu and Peshawar districts) and one from Dera Bugti district of Balochistan province. Dates of collection varies between 18<sup>th</sup> to 21<sup>st</sup> September 2023. The positive WPV1 ES count in 2023 to date is 74 (39 in Afghanistan and 35 in Pakistan), while in 2022, the count remains to be 59 (22 in Afghanistan and 37 in Pakistan).

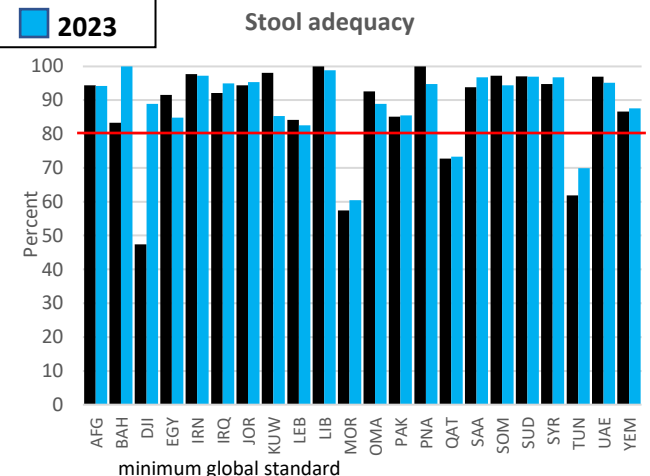
### Circulating Vaccine derived poliovirus (cVDPV)

- No new cVDPV2 isolates reported this week. In 2023 the count of cVDPV2 cases to date remains to be 5 (3 from Somalia and 2 from Yemen) and in 2022 is 168 cases (1 from Sudan, 5 from Somalia and 162 from Yemen). While the positive cVDPV2 ES count in 2023 to date is 11 (5 from Somalia, 3 from Egypt, and 3 from Yemen) and in 2022, the count remains 52 (1 in Sudan, 6 in each of Egypt and Somalia, 12 in Djibouti and 27 in Yemen).
- Three VDPV2 positive environmental isolates from Egypt reported last week as advance notification are yet to be confirmed by CDC and announced by MOH.

### Non polio AFP rate



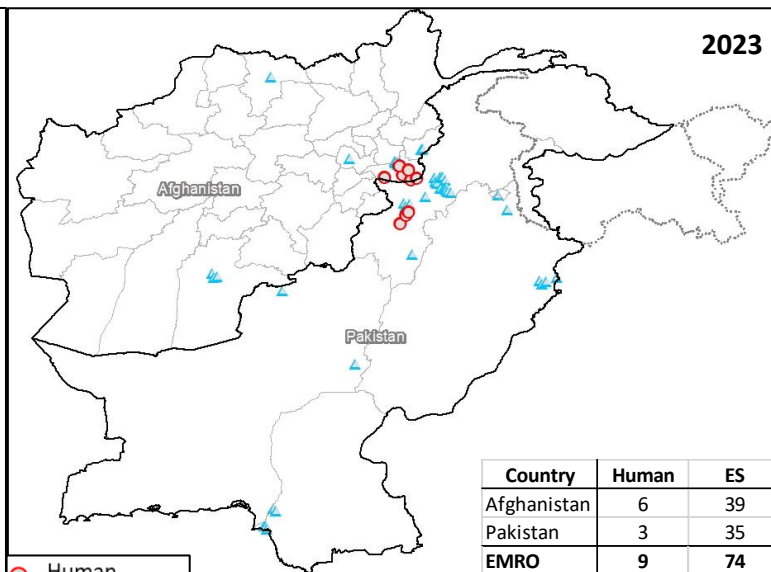
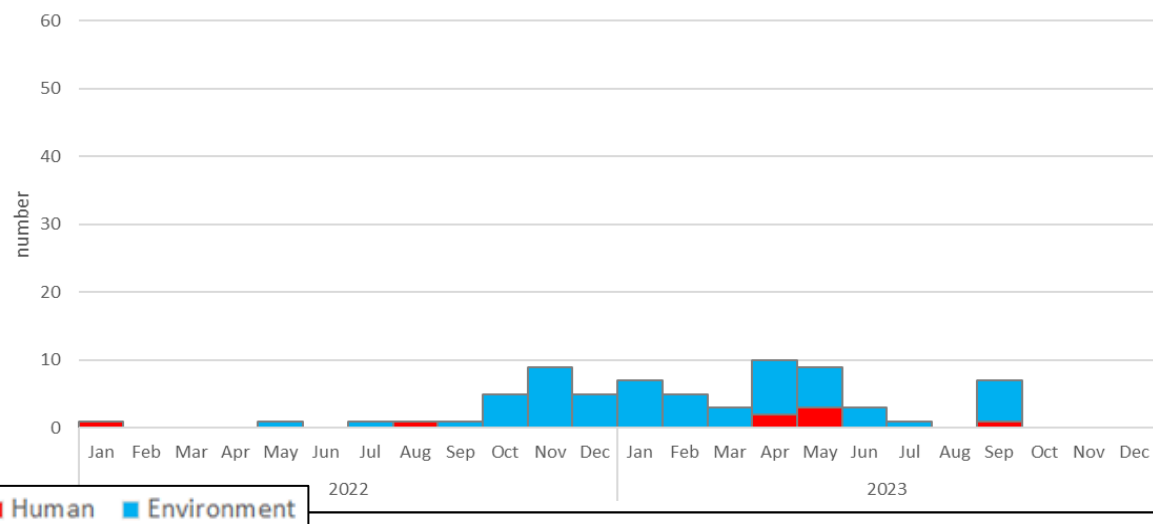
### Stool adequacy



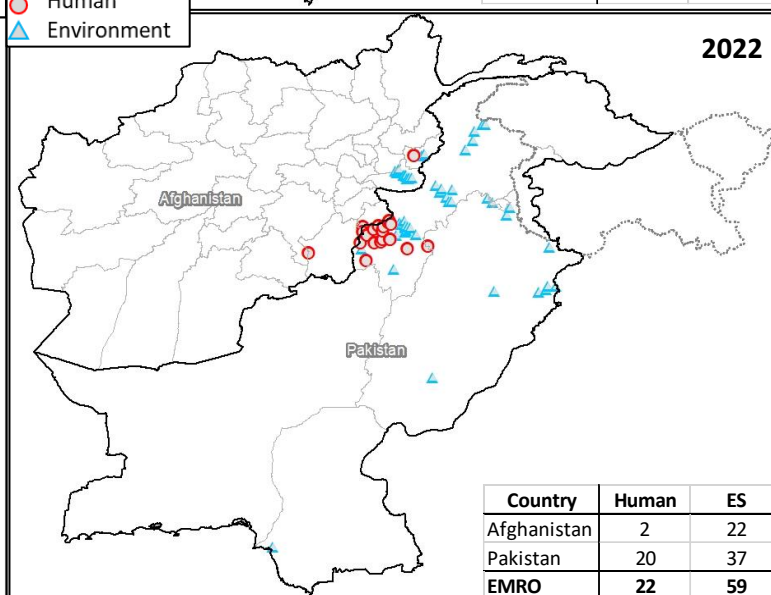
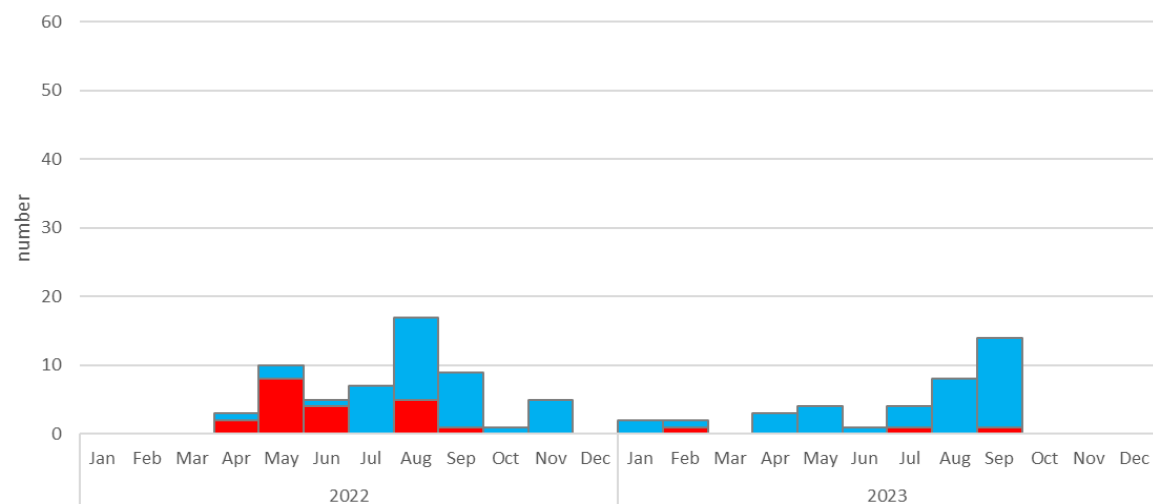
# WPV1 Positive isolates from Afghanistan and Pakistan by source

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## Afghanistan



## Pakistan



For further details on Wild Poliovirus click: [line-list of WPV isolates](#)

# Virus isolation by country, last 12 months (Oct. 08, 2022, to Oct. 08, 2023)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
<b>Human (AFP only)</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>8</b>	<b>22</b>
Wild	6	3					9
cVDPV2				3	1	7	11
aVDPV2							
VDPV2			1			1	2
VDPV3							
<b>Environment</b>	<b>57</b>	<b>41</b>	<b>7</b>	<b>6</b>	<b>1</b>	<b>8</b>	<b>120</b>
Wild	57	40					97
cVDPV2			3	6	1	8	18
aVDPV2			4				4
VDPV2							
VDPV3		1					1
<b>Total</b>	<b>63</b>	<b>44</b>	<b>8</b>	<b>9</b>	<b>2</b>	<b>16</b>	<b>142</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

EMR Polio Bulletin - Issue No. 1305, Week 40 (ending on 08/10/2023)

Country	Total year 2021	Total year 2022	1 October		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2022		2023										
			2022	2023	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Afghanistan	4	2	2	6	0	0		0	0	2	3	0	0	0	1		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	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				
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	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	1	20	20	3	0		0	1	0	0	0	0	1		1		13-Sep-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	0			
Sudan	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						
EMR	5	22	22	9	0	0	0	1	0	2	3	0	1	0	2	0	13-Sep-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	2023									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	4405	6	0	4106	0	6	0	25.39	94.19	5368	2	0	5365	1	0	0	24.34	94.41	8-Oct-23
BAHRAIN	11	0	0	9	0	0	0	4.78	100.00	30	0	0	30	0	0	0	10.02	83.33	8-Oct-23
DJIBOUTI	9	0	0	9	0	0	0	2.78	88.89	19	0	0	19	0	0	0	4.65	47.37	7-Oct-23
EGYPT	1263	0	0	1118	1	12	0	3.98	84.88	1394	0	0	1394	0	0	0	3.48	91.54	6-Oct-23
IRAN	824	0	0	802	0	0	0	5.08	97.21	824	0	0	824	0	0	0	4.06	97.69	7-Oct-23
IRAQ	638	0	0	592	0	13	0	4.71	94.98	835	0	0	835	0	0	0	4.78	92.10	5-Oct-23
JORDAN	85	0	0	70	0	0	0	2.56	95.29	89	0	0	89	0	0	0	2.14	94.38	4-Oct-23
KUWAIT	34	0	0	33	0	0	0	5.13	85.29	52	0	0	52	0	0	0	5.62	98.08	1-Oct-23
LEBANON	69	0	0	57	0	5	0	5.81	82.61	57	0	0	57	0	0	0	3.58	84.21	7-Oct-23
LIBYA	84	0	0	77	0	0	0	4.21	98.81	101	0	0	101	0	0	0	3.89	100.00	7-Oct-23
MOROCCO	91	0	0	42	0	32	2	0.99	60.44	94	0	0	89	0	5	0	0.92	57.45	5-Oct-23
OMAN	18	0	0	18	0	0	0	1.86	88.89	27	0	0	27	0	0	0	2.10	92.59	1-Oct-23
PAKISTAN	13462	3	0	12410	0	149	0	17.89	85.46	19032	20	1	19011	0	0	0	18.86	85.14	8-Oct-23
PALESTINE	19	0	0	16	0	1	0	1.19	94.74	33	0	0	32	1	0	0	1.64	100.00	1-Oct-23
QATAR	15	0	0	10	0	1	0	4.49	73.33	11	0	0	11	0	0	0	2.44	72.73	8-Oct-23
SAUDI ARABIA	215	0	0	158	0	0	0	3.34	96.74	274	0	0	274	0	0	0	3.18	93.80	8-Oct-23
SOMALIA	320	0	0	301	3	0	0	4.63	94.38	356	0	0	349	6	0	0	4.30	97.19	8-Oct-23
SUDAN	229	0	0	154	0	75	68	1.44	96.94	650	0	0	649	1	0	0	3.25	97.08	7-Oct-23
SYRIA	244	0	0	203	0	0	0	4.07	96.72	382	0	0	382	0	0	0	4.96	94.76	7-Oct-23
TUNISIA	73	0	0	71	0	0	0	3.22	69.86	55	0	0	55	0	0	0	1.91	61.82	8-Oct-23
U.A.E.	41	0	0	29	0	7	0	3.61	95.12	66	0	0	66	0	0	0	4.47	96.97	2-Oct-23
YEMEN	959	0	0	699	3	8	1	7.81	87.59	1377	0	1	1214	162	0	0	8.77	86.64	7-Oct-23
EMR POL	23108	9	0	20984	7	309	71	10.30	88.28	31126	22	2	30925	171	5	0	10.77	88.18	

\* 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 2023

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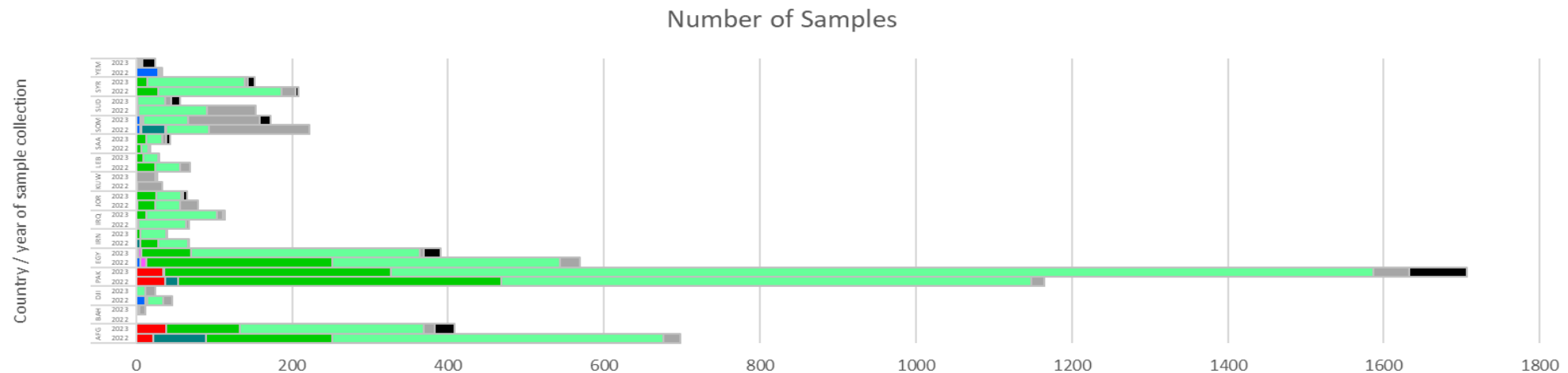
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators				Latest report Date	
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant 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	4370	220	22	588	3296	147	4	5 *	143						177			2	2	9	12%	93%	100%	98%	8-Oct-23
Bahrain	NPL Oman / CDC	11			1	10																5%	100%		45%	6-Oct-23
Djibouti	NPL Kenya / CDC	9			2	7																22%	67%		78%	7-Oct-23
Egypt	RRL Egypt	1194	12		128	978	47	30		6				1		7				1		9%	97%	100%	99%	5-Oct-23
Iran	NPL Iran / CDC	833	7		9	804	10	3		5						3						1%	100%	100%	99%	7-Oct-23
Iraq	NPL Iraq, RRL Egypt	642	5		47	572	9	9		4						2						8%	100%	100%	99%	5-Oct-23
Jordan	NPL Jordan, RRL Egypt	80			14	63	3															17%	95%		100%	8-Oct-23
Kuwait	RRL Kuwait / RIVM	34	1		3	29	1													1		10%	100%		100%	1-Oct-23
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	67			1	66																4%	100%			21-Sep-23
Libya	RRL Tunisia / RIVM	79	1		2	74		2		1												3%	97%	1	100%	21-Sep-23
Morocco	NPL Morocco, RRL Tunisia	91			2	83	6															3%	99%		94%	6-Oct-23
Oman	NPL Oman / CDC	22			1	18	3															12%	100%		100%	6-Oct-23
Pakistan	RRL Pakistan	13201	295	27	2047	10348	329	136	3	191						233						13%	92%	100%	96%	8-Oct-23
Palestine & UNRWA		19	1			16	1	1		1			1									0%	38%		100%	1-Oct-23
Qatar	NPL Oman / CDC	15	1			12	2									1						0%	100%	1	100%	6-Oct-23
Saudi Arabia	NPL Saudi Arabia / CDC	186	1		5	180				1												2%	97%	100%	99%	21-Sep-23
Somalia	NPL Kenya / CDC	320	9		52	244	5	10		4			2	3		2					1	17%	5%		96%	8-Oct-23
Sudan	NPL Sudan / RRL Egypt	263	10		39	197		17					3			1			2			15%	99%	100%	30%	14-Apr-23
Syria	NPL Syria / RRL Egypt	222	4	1	13	184		20														6%	100%			21-Sep-23
Tunisia	RRL Tunisia	77	1		3	71		2								1						3%	96%	1	97%	21-Sep-23
U.A.E	NPL Oman / CDC	34			2	32																6%	94%		21%	6-Oct-23
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	809	24	1	156	604	16	13		10			1	3		18		1				17%	17%	100%	19%	7-Oct-23
Total EMR 2023		22578	592	51	3115	17888	579	247	9 *	366			7	7		445		1	4	3	11	12%	89%	100%	94%	
Total EMR 2022		30461	1066	119	4831	24432		9	22 *	556	2		38	169 **		723		6	8	2	1	13%	93%	89%	92%	

\* In 2023 – one WPV1 case is confirmed due to positive contact 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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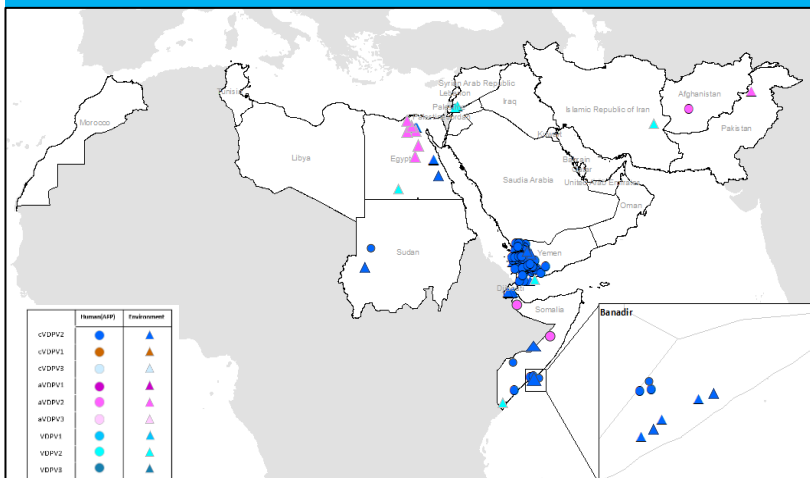


	AFG		BAH		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SAA		SOM		SUD		SYR		YEM	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Wild	22	39					37	35																						
cVDPV2					12				6	3													6	5	1				28	3
Wild+cVDPV2																														
Wild+aVDPV2																														
Wild+aVDPV3																														
aVDPV1																														
aVDPV2							1		7	4																				
aVDPV3																														
VDPV1																														
VDPV2											1				2								1							1
VDPV3							1																							
SL2	68				3		16				4												30	2		1			1	
SL1/3	162	94		2			415	291	239	64	23	6	3	13	22	26			24	9	7	13	2	2	2	1	28	15	2	2
Enteric	424	236		2	20	12	679	1260	292	293	39	33	61	91	32	32	2		32	20	9	21	55	58	88	36	159	125	1	3
Negative	22	14		8	11	12	17	46	25	5	1	1	4	7	23	2	31	24	13	1	2	5	128	92	63	7	18	3		
Pending		26						74		22				3		5		3				5		14		11	3	9		16

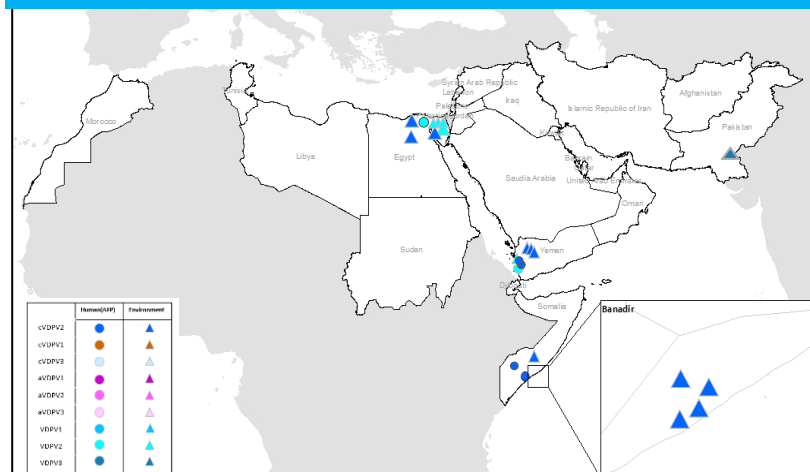
# VDPVs isolations by Source and Country

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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	Most recent	2018	2019	2020	2021	2022	Most recent	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	3		13-08-23								
	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	3	29-07-23	3	1	11		5		31-08-22	19	5	26	1	6	5		27-07-23		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	2	05-08-23				23	40		19-12-22			13	27	3		29-05-23							
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									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																						
	Iran																		1			04-02-22								
	Jordan																		2			25-05-22								
	Somalia					1		01-09-22											1			22-04-23								
	Yemen						1	09-05-23											2	1		26-04-23								
VDPV3	Pakistan																			1		14-02-23								



## 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)