

## 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

- 9 cases of cVDPV2
  - 05 in Somalia
  - 04 in Yemen

- Zero case of cVDPV1



Sewage  
water  
sampling

**2022**

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

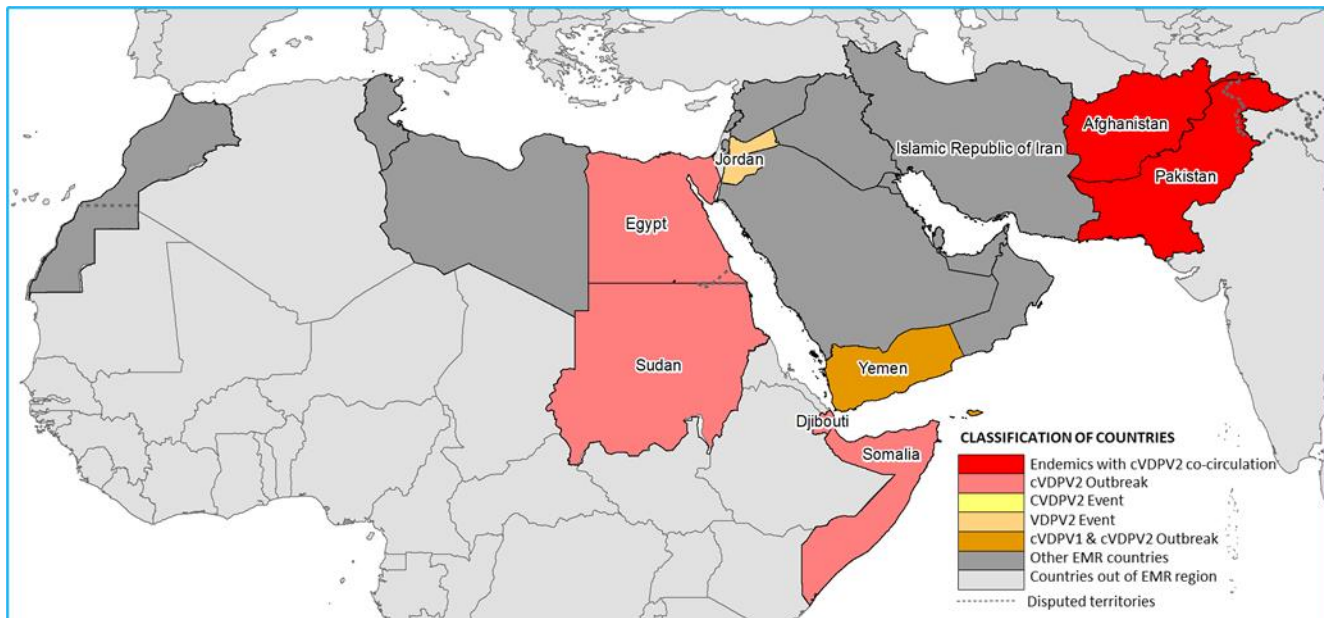
- 51 samples cVDPV2
  - 06 in Egypt
  - 12 in Djibouti
  - 06 in Somalia
  - 01 in Sudan
  - 26 in Yemen

**2023**

- 186 samples Wild Polio 1
  - 62 in Afghanistan
  - 124 in Pakistan

- 31 samples of cVDPV2
  - 09 in Somalia
  - 10 in Yemen
  - 08 in Egypt
  - 04 in Sudan

## 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).
- Nine new WPV1 positive environmental samples (ES) reported this week from Pakistan. The newly reported samples are as follows: 3 each from Balochistan province (1 each from Quetta, Hub, and Mastung districts) and from Khyber Pakhtunkhwa province (1 each from Nowshera, Peshawar, and DI Khan districts), 2 from Sindh province (1 each from KhilMalir and KhilSouth Towns), and 1 from Punjab province (Multan district). Samples collection dates vary between 18<sup>th</sup> – 20<sup>th</sup> December 2023. The total WPV1 positive environmental samples' count in 2023 to date is 186 (62 in Afghanistan and 124 in Pakistan). In 2022, the count remains 59 (22 in Afghanistan and 37 in Pakistan).

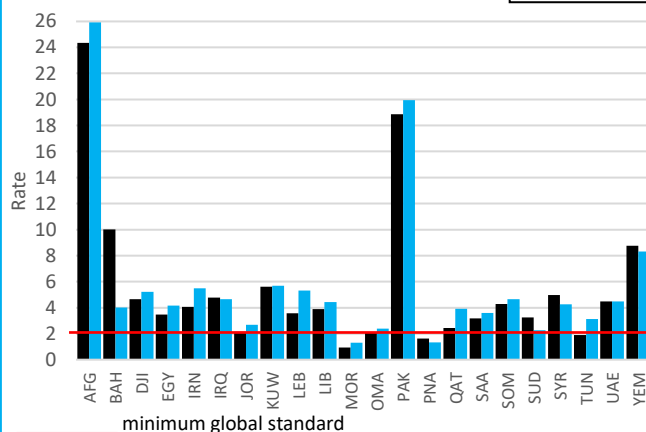
### Vaccine derived poliovirus (VDPV)

- One new cVDPV2 case reported this week from Yemen. The newly reported cVDPV2 case is from Almhilaf district of Al Hudaidah province, with date of onset on 17<sup>th</sup> November 2023. The count of cVDPV2 cases in 2023 to date is 9 (5 from Somalia and 4 from Yemen) and in 2022 the count remains to be 168 cases (1 from Sudan, 5 from Somalia and 162 from Yemen).
- An earlier reported positive VDPV2 ES from Egypt from North Sinai (Dahya Site) with a collection date on 12<sup>th</sup> December 2023, has been confirmed as cVDPV2, in addition, 4 earlier reported VDPV2 ES from Sudan (All from Port Sudan district of Red Sea Province) were confirmed as cVDPV2. The cVDPV2 count in ES for 2023 to date is 31 (10 from Yemen, 9 from Somalia, 8 from Egypt, and 4 from Sudan), while in 2022, the count remains 51 (1 in Sudan, 6 in each of Egypt and Somalia, 12 in Djibouti and 26 in Yemen).
- One new VDPV2 case reported this week from Yemen. The case was reported from Mothekhira district of Ibb province, with date of onset as of 11<sup>th</sup> November 2023.

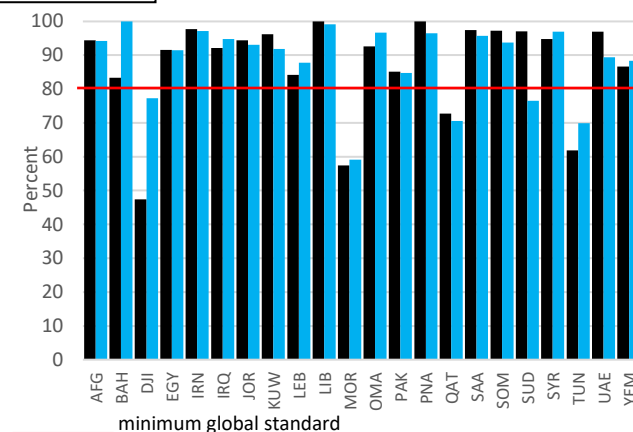
### Events

- The AFP/Environment Surveillance Meeting (Afghanistan, Pakistan, and Somalia) will take place next week in Muscat, Oman, from 28-30 January 2024 with acceptance of H.E. the Minister of Health, Oman to inaugurate the meeting on Sunday, 28 Jan from 9:00 - 9:30 am at Crown Plaza Muscat Hotel.

## Non polio AFP rate



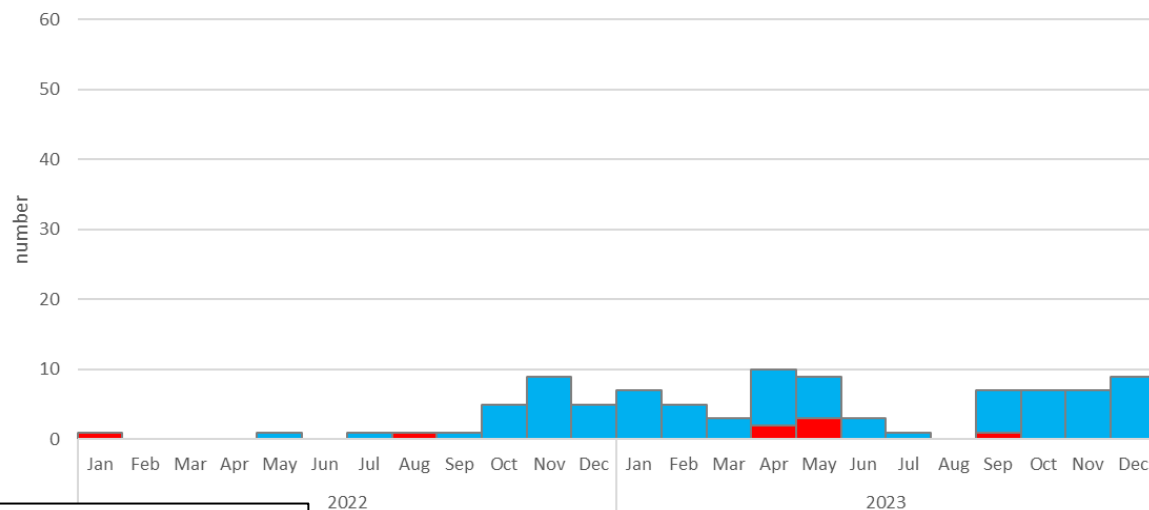
## Stool adequacy



# WPV1 Positive isolates from Afghanistan and Pakistan by source

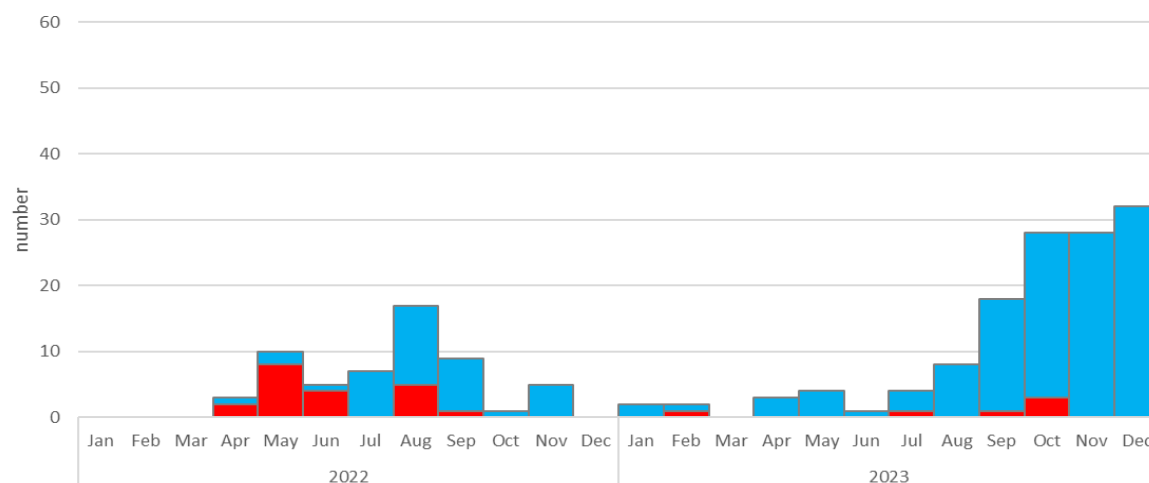
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## Afghanistan

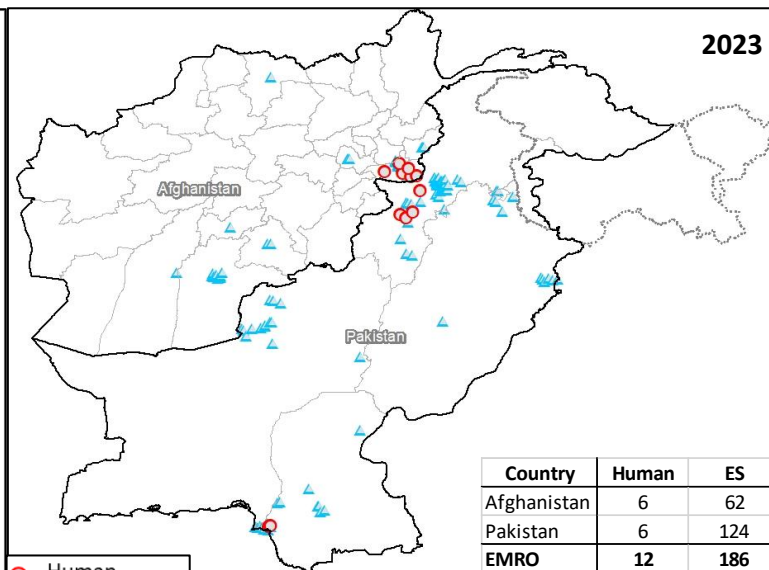


■ Human ■ Environment

## Pakistan



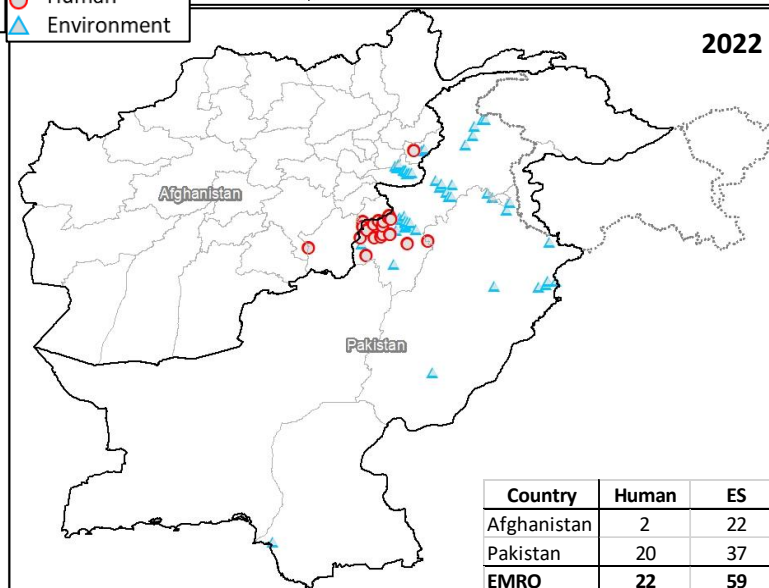
2023



Country	Human	ES
Afghanistan	6	62
Pakistan	6	124
EMRO	12	186

○ Human  
△ Environment

2022



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

# Virus isolation by country, last 12 months (Jan. 21, 2023, to Jan. 21, 2024)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
<b>Human (AFP only)</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>4</b>		<b>6</b>	<b>23</b>
Wild	6	6					12
cVDPV2				4		4	8
aVDPV2						1	1
VDPV2			1			1	2
VDPV3							
<b>Environment</b>	<b>59</b>	<b>123</b>	<b>12</b>	<b>9</b>	<b>4</b>	<b>12</b>	<b>219</b>
Wild	59	122					181
cVDPV2			8	9	4	10	29
aVDPV2			4				4
VDPV2						2	4
VDPV3		1					1
<b>Total</b>	<b>65</b>	<b>129</b>	<b>13</b>	<b>13</b>	<b>4</b>	<b>18</b>	<b>242</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	21 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	0		
Jordan ****	0	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	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							
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	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	147	0	0	3	0	0	0	11.36	99.32	5842	6	0	5760	0	4	0	25.91	94.18	21-Jan-24
BAHRAIN	0	0	0	0	0	0	0	0.00		12	0	0	10	0	2	1	4.01	100.00	21-Jan-24
DJIBOUTI	0	0	0	0	0	0	0	0.00		22	0	0	9	0	3	0	5.23	77.27	21-Jan-24
EGYPT	54	0	0	0	0	0	0	2.28	44.44	1714	0	0	1634	1	17	0	4.16	91.48	18-Jan-24
IRAN	8	0	0	0	0	0	0	0.66	100.00	1150	0	0	1136	0	0	0	5.48	97.13	20-Jan-24
IRAQ	27	0	0	1	0	0	0	2.68	81.48	817	0	0	798	0	9	0	4.65	94.74	19-Jan-24
JORDAN	2	0	0	0	0	0	0	0.41	50.00	116	0	0	116	0	0	0	2.68	93.10	18-Jan-24
KUWAIT	2	0	0	0	0	0	0	4.04	0.00	49	0	0	49	0	0	0	5.69	91.84	14-Jan-24
LEBANON	7	0	0	0	0	0	0	7.88	71.43	82	0	0	69	0	6	0	5.31	87.80	20-Jan-24
LIBYA	2	0	0	0	0	0	0	1.34	100.00	115	0	0	112	0	0	0	4.43	99.13	20-Jan-24
MOROCCO	8	0	0	0	0	0	0	1.21	62.50	154	0	0	42	0	66	13	1.31	59.09	19-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	301	0	0	12	0	0	0	5.31	95.35	19506	6	0	18721	0	219	0	19.94	84.76	21-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	21-Jan-24
SAUDI ARABIA	6	0	0	0	0	0	0	1.25	100.00	300	0	0	264	0	3	0	3.59	95.67	14-Jan-24
SOMALIA	14	0	0	0	0	0	0	2.71	100.00	417	0	0	387	5	1	0	4.64	93.76	21-Jan-24
SUDAN	1	0	0	0	0	0	0	0.08	100.00	472	0	0	355	0	42	5	2.27	76.48	14-Jan-24
SYRIA	12	0	0	0	0	0	0	2.69	75.00	331	0	0	325	0	1	0	4.26	96.98	20-Jan-24
TUNISIA	0	0	0	0	0	0	0	0.00		93	0	0	90	0	0	0	3.13	69.89	19-Jan-24
U.A.E.	0	0	0	0	0	0	0	0.00		66	0	0	52	0	2	2	4.47	89.39	15-Jan-24
YEMEN	42	0	0	0	0	0	0	4.58	85.71	1327	0	0	1162	6	7	2	8.31	88.32	20-Jan-24
EMR POL	633	0	0	16	0	0	0	3.76	89.42	32660	12	0	31153	12	386	23	11.20	87.81	

\* 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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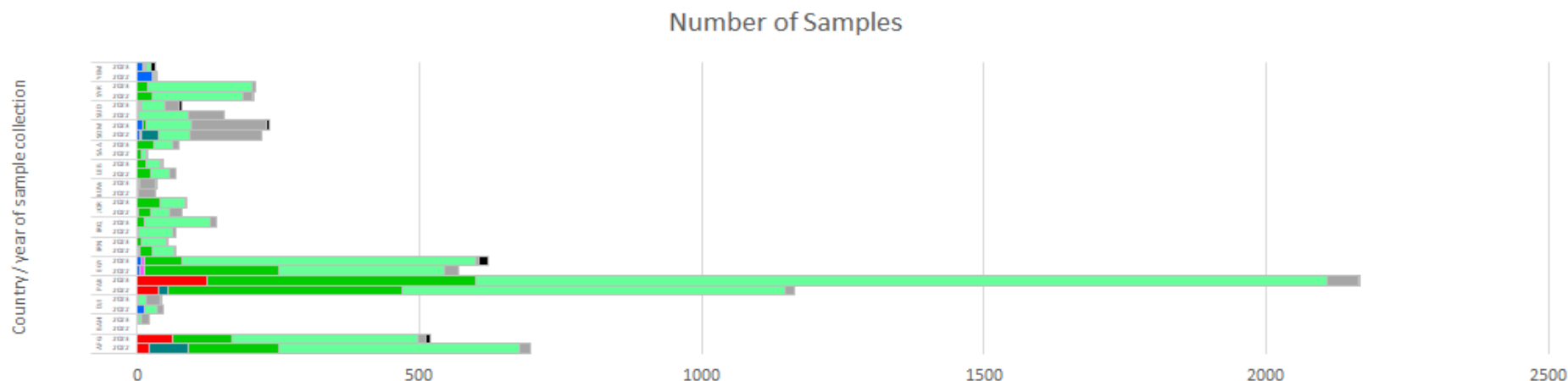
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results													Indicators				Latest report Date		
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			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+	L-20B+ / NPEV			received within last 14 days	received more than 14 days ago	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild	Sabin	VDPV											
Afghanistan	RRL Pakistan	5807	316	30	809	4602	43	1	5 *	213						262			2	2	2	12%	94%	100%	98%	21-Jan-24		
Bahrain	NPL Oman / CDC	11			1	10																5%	100%		45%	16-Jan-24		
Djibouti	NPL Kenya / CDC	22			2	12		8														14%	53%		79%	21-Jan-24		
Egypt	RRL Egypt	1664	17		191	1435	12	10		9				1		12				1		10%	93%	100%	99%	18-Jan-24		
Iran	NPL Iran / CDC	1153	8		8	1137				6						3						1%	100%	100%	99%	20-Jan-24		
Iraq	NPL Iraq, RRL Egypt	817	6		64	736		11		5						2						8%	100%	100%	99%	19-Jan-24		
Jordan	NPL Jordan, RRL Egypt	115			18	97																15%	96%		100%	18-Jan-24		
Kuwait	RRL Kuwait / RIVM	52	1		8	39		4												1		13%	98%		100%	11-Jan-24		
Lebanon	NPL Syria, RRL Egypt	84			2	76	6															5%	100%			20-Jan-24		
Libya	RRL Tunisia / RIVM	113	1		3	105		4		1												3%	95%	1	100%	12-Jan-24		
Morocco	NPL Morocco, RRL Tunisia	147			3	133	6	5														3%	99%		94%	19-Jan-24		
Oman	NPL Oman / CDC	30			1	29																7%	100%		100%	16-Jan-24		
Pakistan	RRL Pakistan	18995	574	47	2893	15252	218	9	4 *	390						446						13%	94%	100%	96%	21-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%	16-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		26		4				2	5	2						16%	4%		95%	21-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	329	5	1	31	287	5															9%	100%			20-Jan-24		
Tunisia	RRL Tunisia	100	1		3	94	1	1								1						3%	97%	1	97%	12-Jan-24		
U.A.E	NPL Oman / CDC	61			3	48	10															6%	96%		27%	16-Jan-24		
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	1144	28	2	236	878				11				1	6		20					17%	20%	100%	20%	20-Jan-24		
Total EMR 2023		31850	987	81	4432	25943	301	98	12 *	644				8	12		754			4	3	3	12%	91%	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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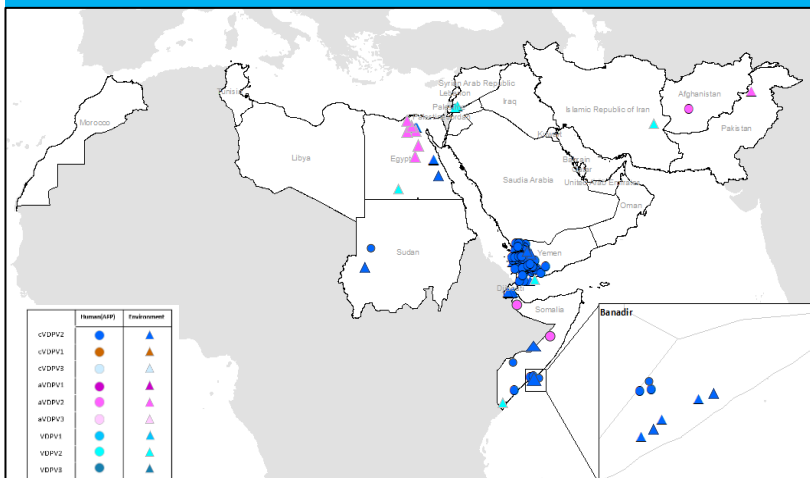


	AFG		BAH		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SAA		SOM		SUD		SYR		YEM	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
■ Wild	22	62					37	124																						
■ cVDPV2					12				6	8													6	9	1	4			26	10
■ Wild+cVDPV2																														
■ Wild+aVDPV2																														
■ Wild+aVDPV3																														
■ aVDPV1																														
■ aVDPV2							1		7	4																				
■ aVDPV3																														
■ VDPV1																														
■ VDPV2											1				2								1						3	2
■ VDPV3							1																							
■ SL2	68				2		16				4												30	2		1			1	
■ SL1/3	162	105		3	2	415	474	239	68	23	7	3	13	22	41		2	24	15	7	31		2	5	2	3	28	20	2	5
■ Enterovirus	424	329		5	21	14	679	1510	293	519	39	45	61	116	32	45	2	3	32	27	9	32	55	80	88	41	159	183	1	7
■ 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		9			4		5		17								3							7		5	3			8

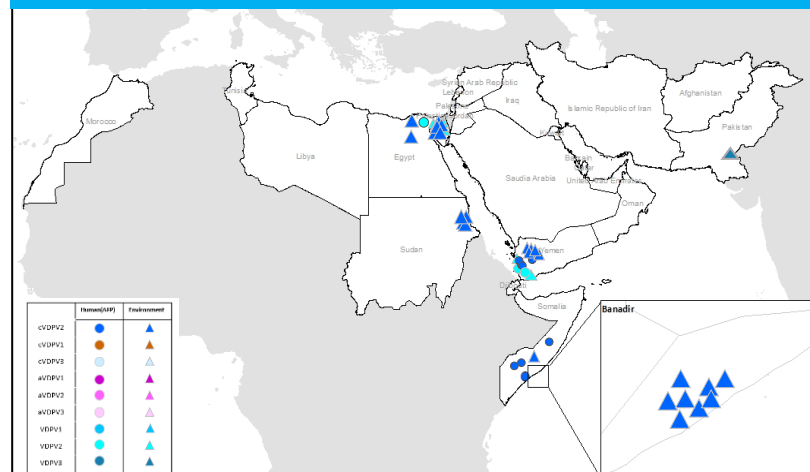
# VDPVs isolations by Source and Country

EMR Polio Bulletin - Issue No. 1320 Week 03 (ending on 21/01/2024)

## 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	8		12-12-23						
	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	4	30-11-23			4				24-08-20
	Yemen				66	162	4	17-11-23				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																					
	Iran																			1		04-02-22							
	Jordan																			2		25-05-22							
	Somalia					1		01-09-22												1		22-04-22							
	Sudan																												
	Yemen					2	11-11-23													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)
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- [Certification \(e-ACR\)](#) (restricted to registered users)