

# EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1290, Week 25 (ending on 25/06/2023)

## 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

- 6 cases of Wild Polio 1
  - 05 in Afghanistan
  - 01 in Pakistan

- 2 cases of cVDPV2
  - 02 in Somalia

- Zero case of cVDPV1



Sewage  
water  
sampling

### 2022

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

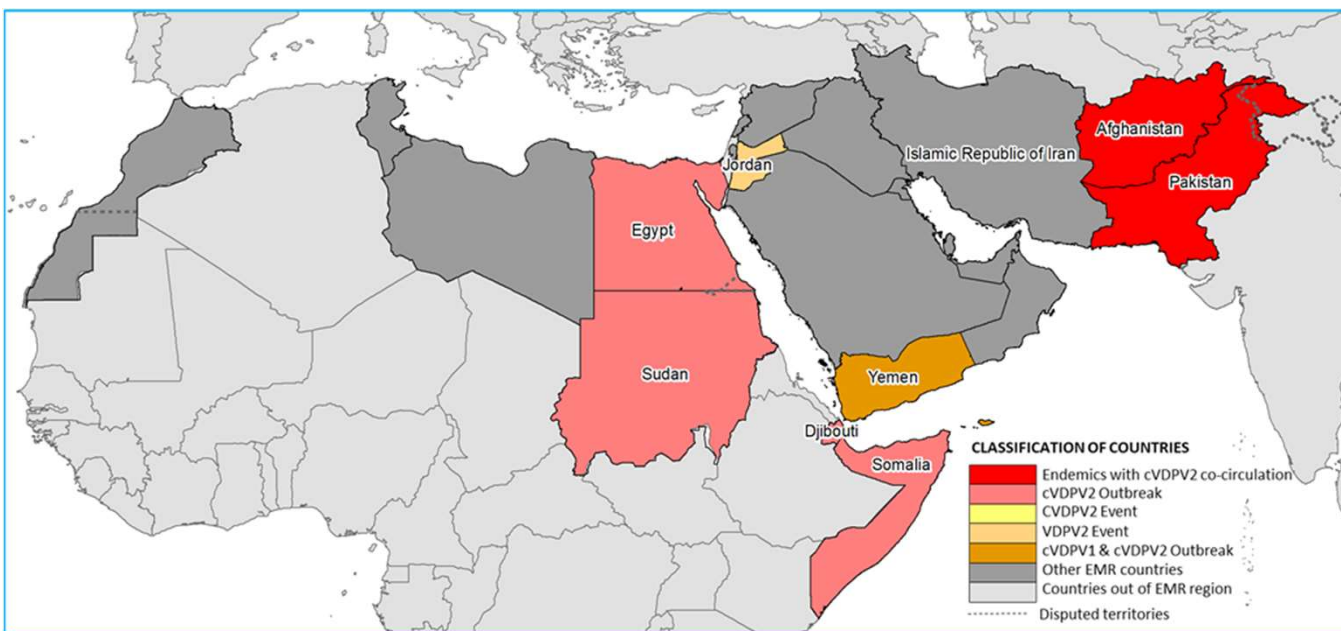
- 50 samples cVDPV2
  - 06 in Egypt
  - 12 in Djibouti
  - 06 in Somalia
  - 01 in Sudan
  - 25 in Yemen

### 2023

- 40 samples Wild Polio 1
  - 29 in Afghanistan
  - 11 in Pakistan

- Zero samples of cVDPV2

## Classification of EMR countries by type of poliovirus circulation



## Highlights of the week

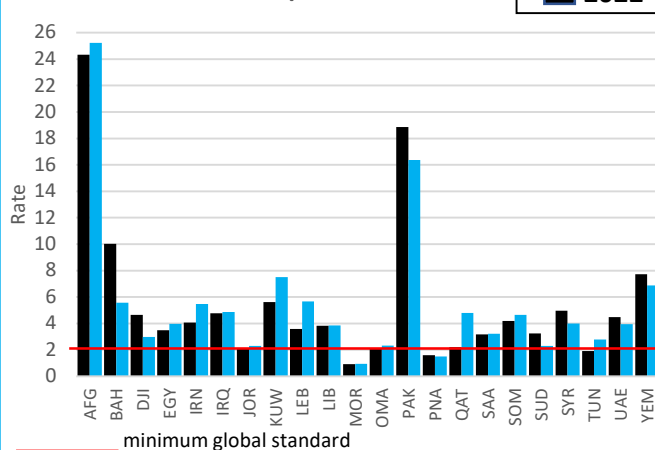
### Wild Poliovirus

- No new WPV1 cases reported this week. The WPV1 cases count in 2023 till date is 6 (5 from Afghanistan and 1 from Pakistan) while in 2022, the WPV1 cases count remains to be 22 cases (2 from Afghanistan and 20 from Pakistan).
- No new WPV1 positive environmental samples reported this week. The positive WPV1 ES count in 2023 is 40 (29 in Afghanistan and 11 in Pakistan), while in 2022, the count remains to be 59 (22 in Afghanistan and 37 in Pakistan).

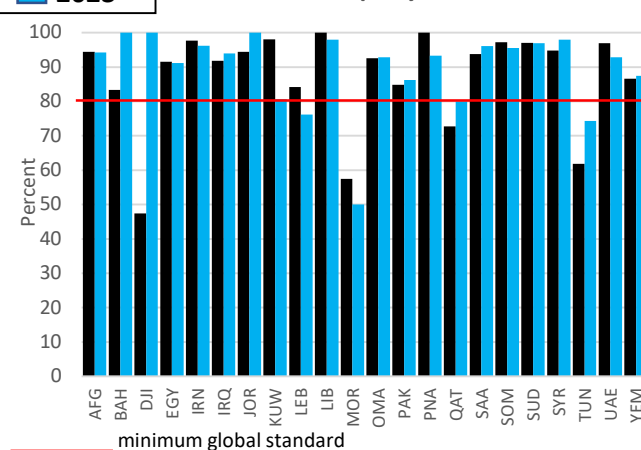
### Circulating Vaccine derived poliovirus (cVDPV)

- No new cVDPV isolates from human or environmental samples reported this week.
  - In 2023 the count of cVDPV2 cases remains to be 2 cases from Somalia while the count in 2022 is 168 cases (1 from Sudan, 5 from Somalia and 162 from Yemen).
  - In 2022 to date, the positive cVDPV2 ES count remains to be 50 (1 in Sudan, 6 in each of Egypt and Somalia, 12 in Djibouti and 25 in Yemen) and no cVDPV2 ES reported in 2023 till date.

### Non polio AFP rate



### Stool adequacy



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

Contact us: WHO/EMRO – POL/SLD - Data

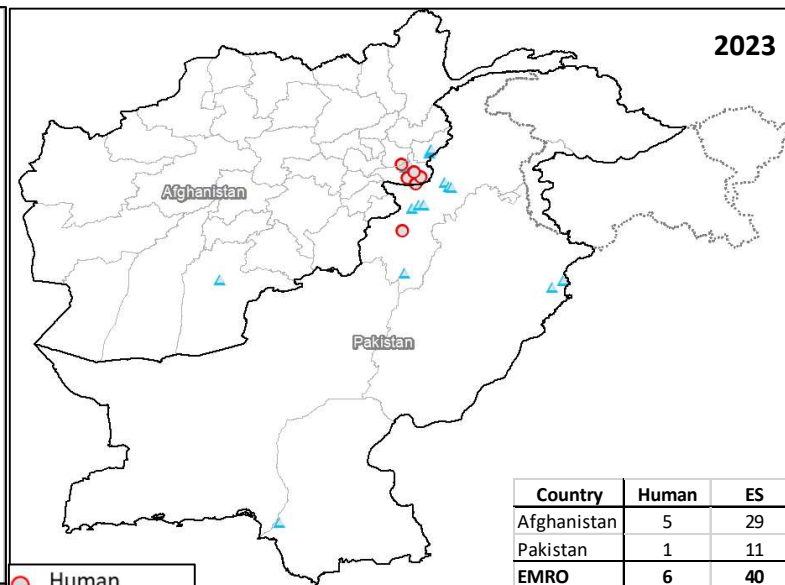
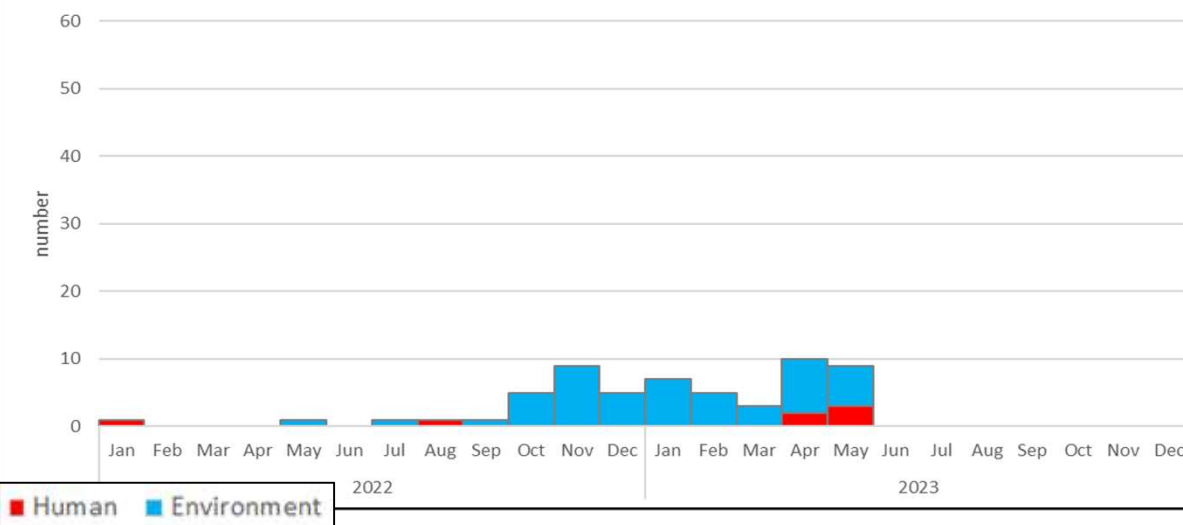
Email: [emacojorpolsld@who.int](mailto:emacojorpolsld@who.int)

Web: <http://www.emro.who.int/polio/strategy-surveillance/em-polio-fax-issues.html>

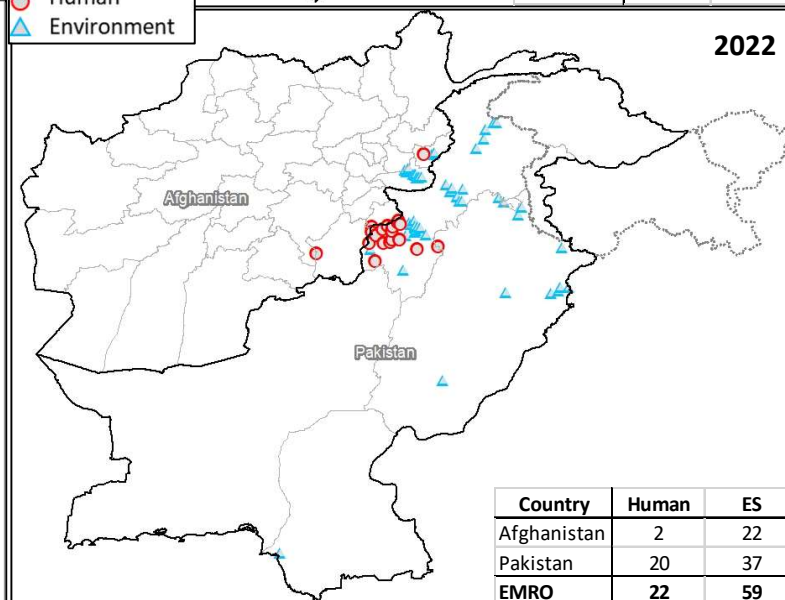
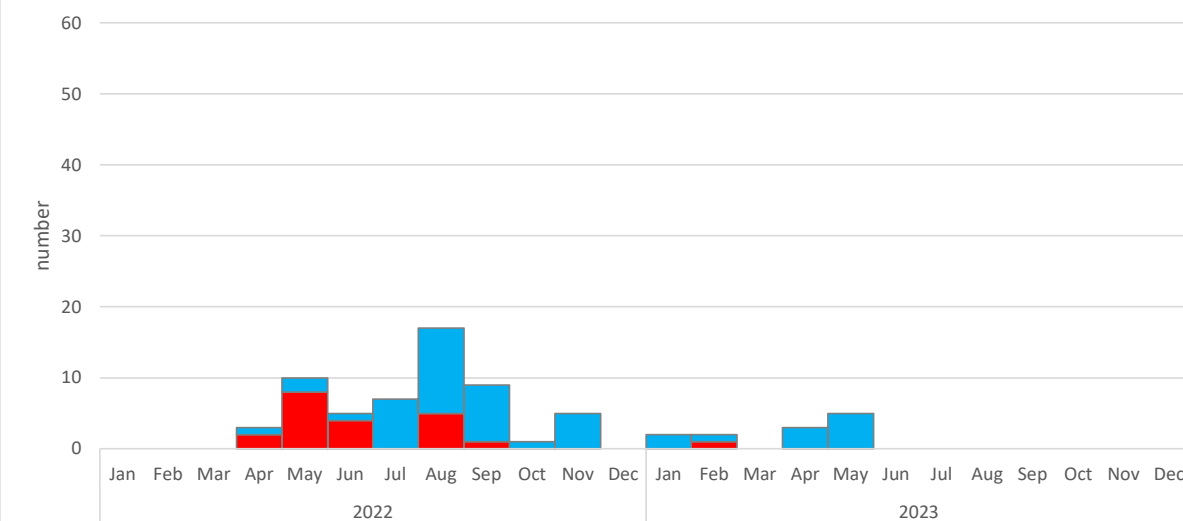
# WPV1 Positive isolates from Afghanistan and Pakistan by source

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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 (June 25, 2022 to June 25, 2023)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
<b>Human (AFP only)</b>	<b>6</b>	<b>8</b>		<b>6</b>	<b>1</b>	<b>38</b>	<b>59</b>
Wild	6	8					14
cVDPV2				4	1	38	43
aVDPV2				2			2
VDPV2							
<b>Environment</b>	<b>50</b>	<b>44</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>15</b>	<b>115</b>
Wild	50	44					94
cVDPV2			1	3	1	15	20
aVDPV2							
VDPV2			1				1
<b>Total</b>	<b>56</b>	<b>52</b>	<b>2</b>	<b>9</b>	<b>2</b>	<b>53</b>	<b>174</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 2021	Total year 2022	18 June		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2022						2023						
			2022	2023	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
Afghanistan	4	2	1	5	0	1	0	0	0	0		0	0	2	3		18-May-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	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	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	1	20	12	1	0	5	1	0	0		0	1	0	0			20-Feb-23
Palestine ****	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	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	0	0	0	0					
Syria ****	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				
Yemen	0	0	0	0	0	0	0	0	0	0							
EMR	5	22	13	6	0	6	1	0	0	0	0	1	0	2	3		18-May-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	2728	5	0	2431	0	13	4	25.22	94	5368	2	0	5365	1	0	0	24.33	94	25-Jun-23
Bahrain	8	0	0	5	0	0	0	5.57	100	30	0	0	30	0	0	0	10.02	83	25-Jun-23
Djibouti	6	0	0	5	0	0	0	2.97	100	19	0	0	19	0	0	0	4.65	47	25-Jun-23
Egypt	784	0	0	647	0	10	1	3.96	91	1394	0	0	1394	0	0	0	3.48	92	25-Jun-23
Iraq	411	0	0	389	0	7	0	4.88	94	835	0	0	835	0	0	0	4.78	92	24-Jun-23
Islamic Republic of Iran	553	0	0	499	0	0	0	5.48	96	824	0	0	824	0	0	0	4.06	98	24-Jun-23
Jordan	48	0	0	46	0	0	0	2.30	100	89	0	0	89	0	0	0	2.14	94	07-Jun-23
Kuwait	31	0	0	31	0	0	0	7.51	81	52	0	0	52	0	0	0	5.62	98	25-Jun-23
Lebanon	42	0	0	24	0	5	0	5.67	76	57	0	0	57	0	0	0	3.58	84	19-Jun-23
Libya	49	0	0	37	0	1	0	3.86	98	99	0	0	99	0	0	0	3.82	100	17-Jun-23
Morocco	54	0	0	18	0	21	1	0.94	50	94	0	0	88	0	5	1	0.91	57	25-Jun-23
Oman	14	0	0	14	0	0	0	2.32	93	27	0	0	27	0	0	0	2.10	93	12-Jun-23
Pakistan	7675	1	0	6954	0	75	0	16.36	86	19031	20	1	19009	0	1	3	18.85	85	25-Jun-23
Palestine	15	0	0	6	0	2	1	1.50	93	33	0	0	32	1	0	0	1.59	100	18-Jun-23
Qatar	10	0	0	3	0	2	0	4.80	80	11	0	0	11	0	0	0	2.22	73	11-Jun-23
Saudi Arabia	129	0	0	92	0	1	0	3.22	96	274	0	0	274	0	0	0	3.18	94	18-Jun-23
Somalia	202	0	0	185	2	0	0	4.65	96	356	0	0	349	7	0	0	4.20	97	25-Jun-23
Sudan	229	0	0	154	0	18	11	2.31	97	650	0	0	649	1	0	0	3.24	97	25-Jun-23
Syrian Arab Republic	149	0	0	128	0	0	0	4.01	98	382	0	0	382	0	0	0	4.96	95	24-Jun-23
Tunisia	39	0	0	33	0	1	1	2.80	74	55	0	0	55	0	0	0	1.91	62	16-Jun-23
United Arab Emirates	28	0	0	17	0	7	0	3.96	93	66	0	0	66	0	0	0	4.47	97	20-Jun-23
Yemen	527	0	0	337	0	15	7	6.89	87	1377	0	1	1214	162	0	0	7.73	87	25-Jun-23
EMR POL	13731	6	0	12055	2	178	26	9.82	89	31123	22	2	30920	172	6	4	10.71	88	

\* 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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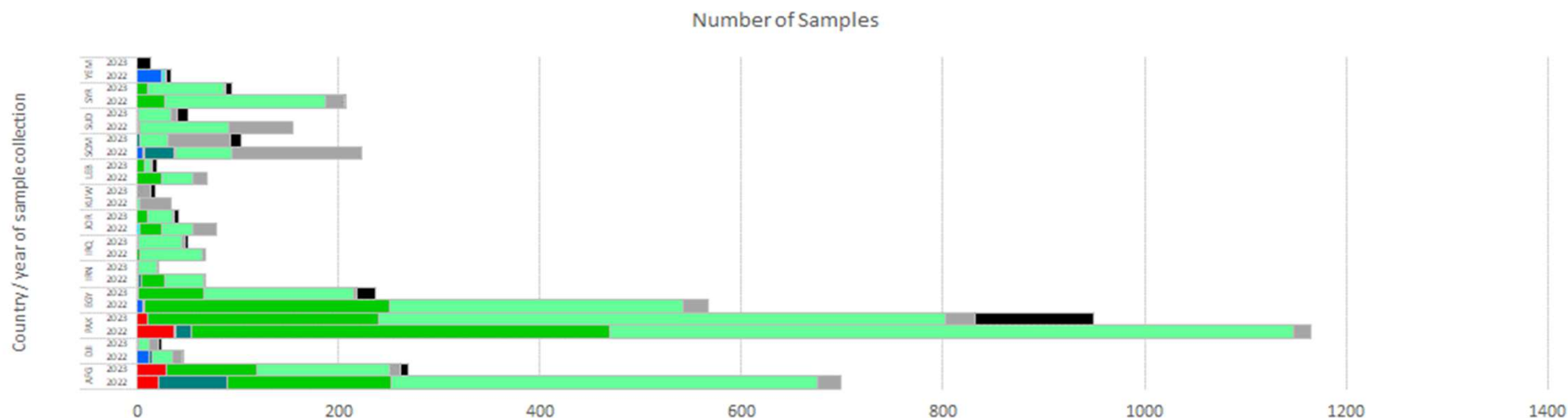
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators				Latest report Date	
	ITD Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant 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	3738	219	36	667	2647	146		2	164			8			184			2			16%	96%	100%	99%	25-06-23
Bahrain	PNL Oman	9				9																0%	100%		100%	25-06-23
Djibouti	PNL Kenya	14	2		4	8				2			2			2						29%	71%		71%	23-06-23
Egypt***	RRL Egypt	933	18	5	134	730	32	14		8						13			2	2		12%	99%	100%	99%	15-06-23
Iran	PNL Iran / CDC	543	9		5	522	7			4	1					6						1%	100%	100%	98%	24-06-23
Iraq	PNL Iraq, RRL Egypt	597	2		53	524	16	2								2						9%	100%	50%	99%	24-06-23
Jordan	PNL Jordan, RRL Egypt	56	2		13	36	1	4								2						27%	100%	100%	100%	25-06-23
Kuwait	RRL Kuwait / RIVM	35	2			29	2	2		1						1						3%	100%	100%	100%	25-06-23
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	28	1			24	3															0%	100%			18-06-23
Libya	RRL Tunisia / RIVM	64			1	63																2%	100%		100%	10-06-23
Morocco	PNL Morocco, RRL Tunisia	38			3	35																9%	100%		92%	25-06-23
Oman	PNL Oman / CDC	23			3	19	1															15%	82%		100%	25-06-23
Pakistan	RRL Pakistan	11596	343	48	2178	8365	635	22	16	190			1			288			5			16%	97%	99%	96%	25-06-23
Palestine & UNRWA		10				9		1														0%	33%		89%	08-06-23
Qatar	NPL Oman / CDC	6	1			5				1												0%	83%	0%	100%	25-06-23
Saudi Arabia	PNL Saudi Arabia / CDC	147	2		3	140		2								2						3%	92%	50%	98%	19-06-23
Somalia	PNL Kenya / CDC	241	9	1	40	165		29		2			9	1								19%	8%		99%	23-06-23
Sudan	PNL Sudan, RRL Egypt	475	8		120	324	21	2										1				26%	70%	100%	22%	14-06-23
Sudan (south)	PNL Kenya																									25-06-23
Syria	PNL Syria, RRL Egypt	269	2		14	234	18	1														5%	100%			18-06-23
Tunisia	RRL Tunisia	26				25		1														1%	100%		96%	10-06-23
U.A.E	PNL Oman / CDC	30				27	3															0%	81%		63%	25-06-23
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	804	164	3	109	483		46		8			8	130		19						15%	32%	32%	3%	25-06-23
Total EMR 2023		19682	784	93	3347	14423	885	126	18	380	1		28	131		519		1	7	2	2	15%	92%	86%	93%	
Total EMR 2022		30459	1066	119	4831	24430		9	22	556	2		38	169		723		6	8	2	1	13%	93%	89%	92%	

\* In 2022 - Three WPV1 cases are 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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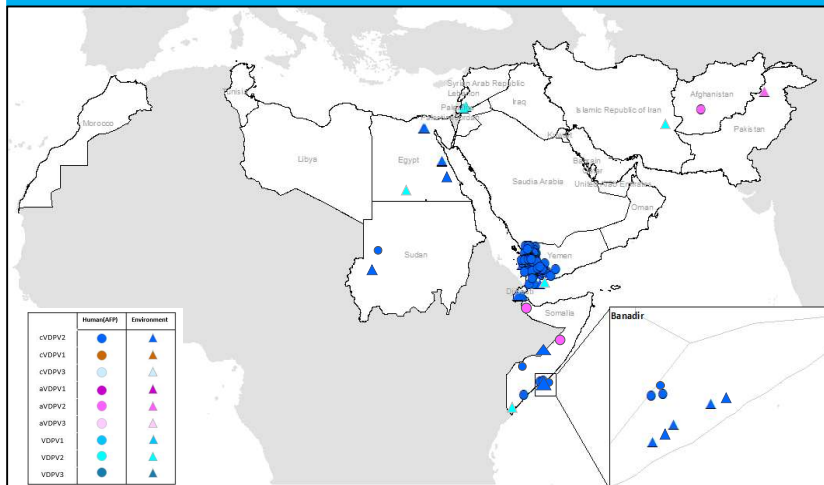
	AFG		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SOM		SUD		SYR		YEM	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Wild	22	29			37	11																				
cVDPV2			12				6												6		1				25	
Wild+cVDPV2																										
Wild+aVDPV2																										
Wild+aVDPV3																										
aVDPV1																										
aVDPV2					1																					
aVDPV3																										
VDPV1																										
VDPV2							1	1	1				2						1						2	
SL2	68		3		16				4									30	2						1	
SL1/3	162	90		1	415	229	243	65	23	1	3	1	22	11			24	8	2		2	1	28	11	1	
Enteric	424	131	20	11	679	563	292	149	39	18	61	43	32	25	2		32	6	55	29	88	32	159	76		
Negative	22	11	10	9	17	29	25	3	1	1	4	4	23	1	31	14	13	1	128	62	63	7	18	1		
Pending		8	1	3		117		18		2		2		5		4		4		11		10	3	6	4	13

For further details on Environmental Samples Results click: [Detail of environmental surveillance samples](#)

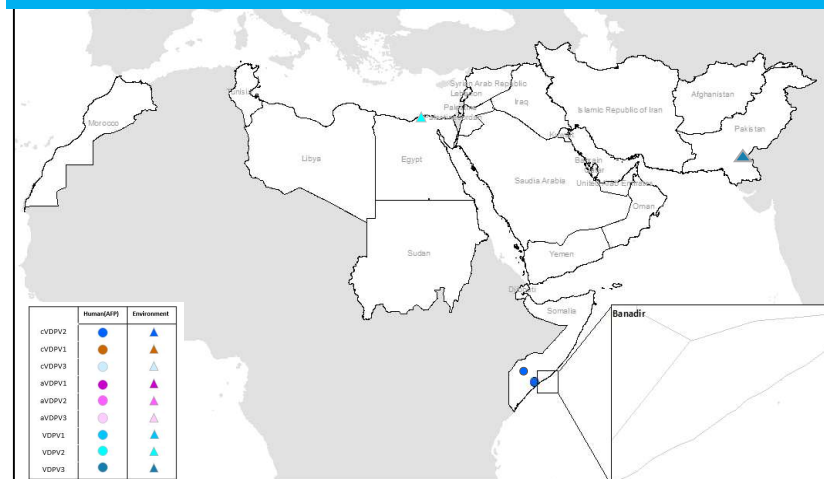
# VDPVs isolations by Source and Country

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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						
		2018	2019	2020	2021	2022	2023	Most recent	2018	2019	2020	2021	2022	2023	Most recent	2018	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			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	5	2	02-03-23	3	1	11		5		31-08-22	19	5	26	1	6		22-12-22
	Sudan			58		1		31-10-22		18					08-10-20			14		1		28-11-22
	Yemen					66	162	14-12-22			23	40			19-12-22			13	25			28-11-22
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														
aVDPV2	Yemen				1			20-07-21														
	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	3	22	37	1			15-02-22
	Somalia															2	1					03-02-19
aVDPV3	Yemen				3			01-11-21		1					09-12-21							
	Afghanistan		1					23-06-20														
	Egypt																2					30-09-20
	Pakistan																	1				05-04-21
VDPV1	Libya		1					15-01-20														
VDPV1	Egypt																	1				11-07-21
VDPV2	Egypt					1		27-02-23										67	1			12-01-22
	Iran																		1			04-02-22
	Jordan																	2				25-05-22
	Somalia					1		01-09-22														
VDPV3	Yemen																		1			24-04-22
	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)