

## 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

- 5 cases of Wild Polio 1
  - 04 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

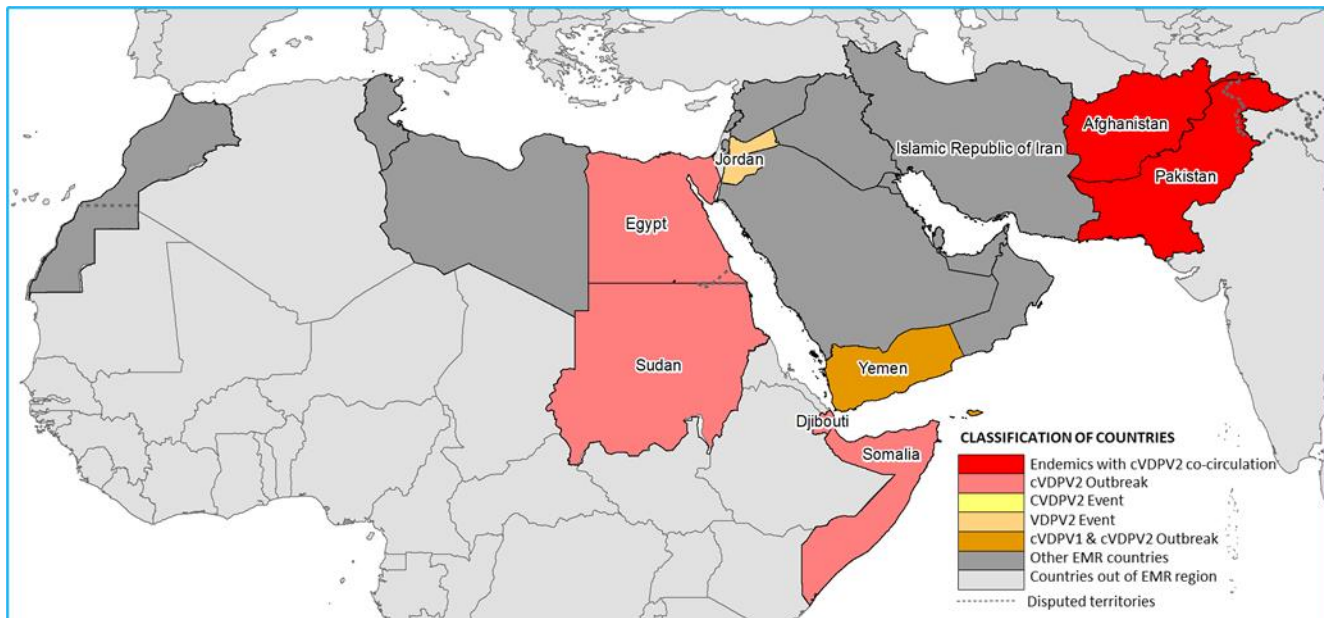
- 50 samples cVDPV2
  - 06 in Egypt
  - 12 in Djibouti
  - 06 in Somalia
  - 01 in Sudan
  - 25 in Yemen

### 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

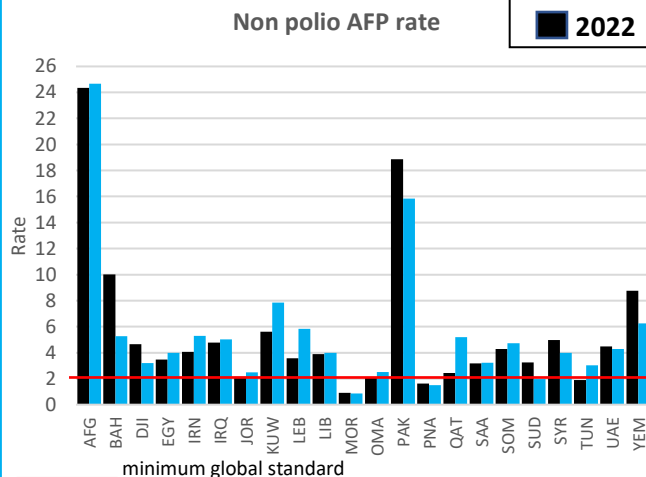
### Wild Poliovirus

- No new wild poliovirus cases reported this week. The WPV1 cases count in 2023 to date is 5 (4 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).
- Two new WPV1 positive environmental samples were reported this week (one each from Afghanistan and Pakistan) as follows:  
**Afghanistan:** the new WPV1 environmental sample is from Jalalabad district, Nangarhar province, with sample collection date on 21<sup>st</sup> May 2023.  
**Pakistan:** the new WPV1 environmental sample is from Khigadap town, Sindh province, with sample collection date on 15<sup>th</sup> May 2023.  
 The positive WPV1 ES count in 2023 is 40 up to date (29 in Afghanistan and 11 in Pakistan) while in 2022, the count remains to be 59 (22 in Afghanistan and 37 in Pakistan).

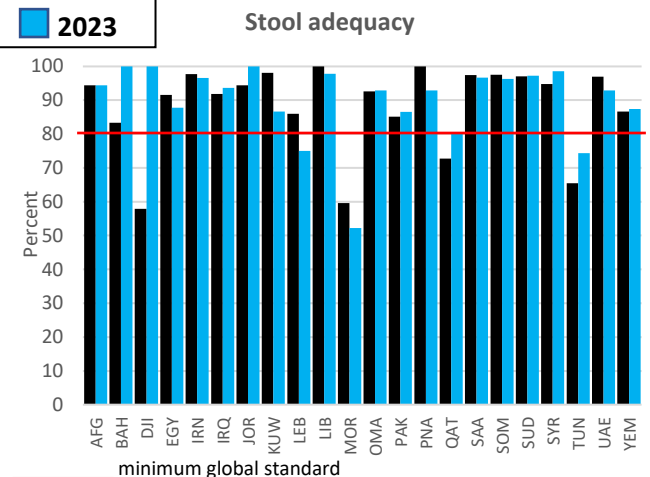
### Circulating Vaccine derived poliovirus (cVDPV)

- 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



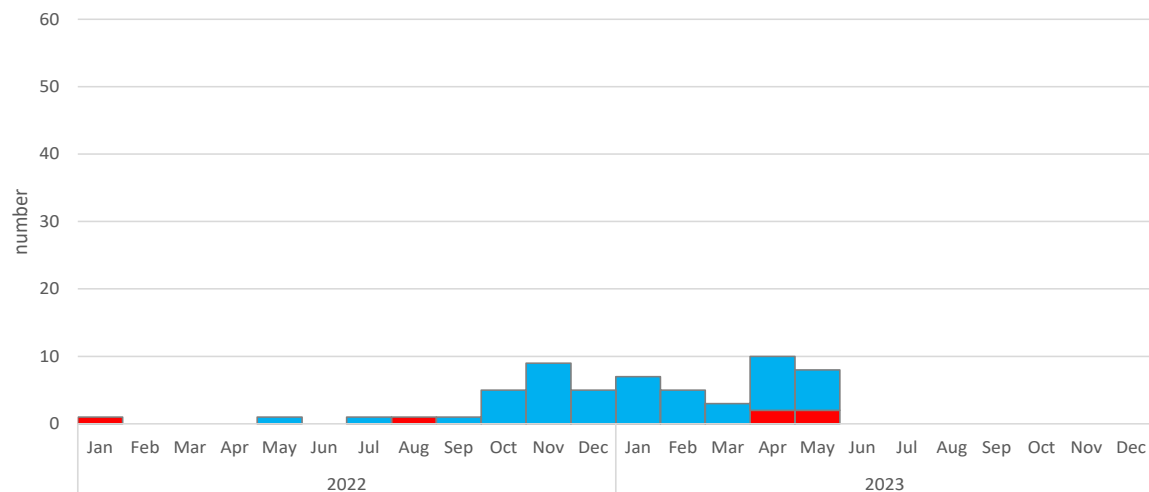
### Stool adequacy



# WPV1 Positive isolates from Afghanistan and Pakistan by source

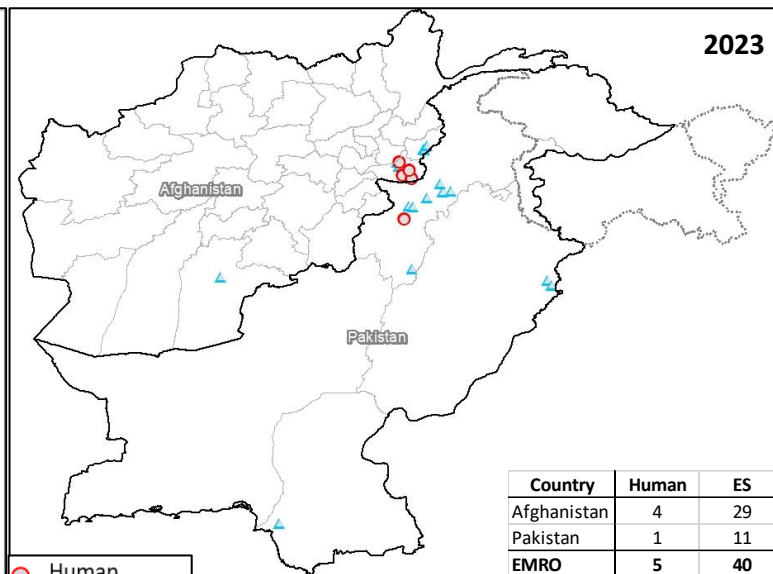
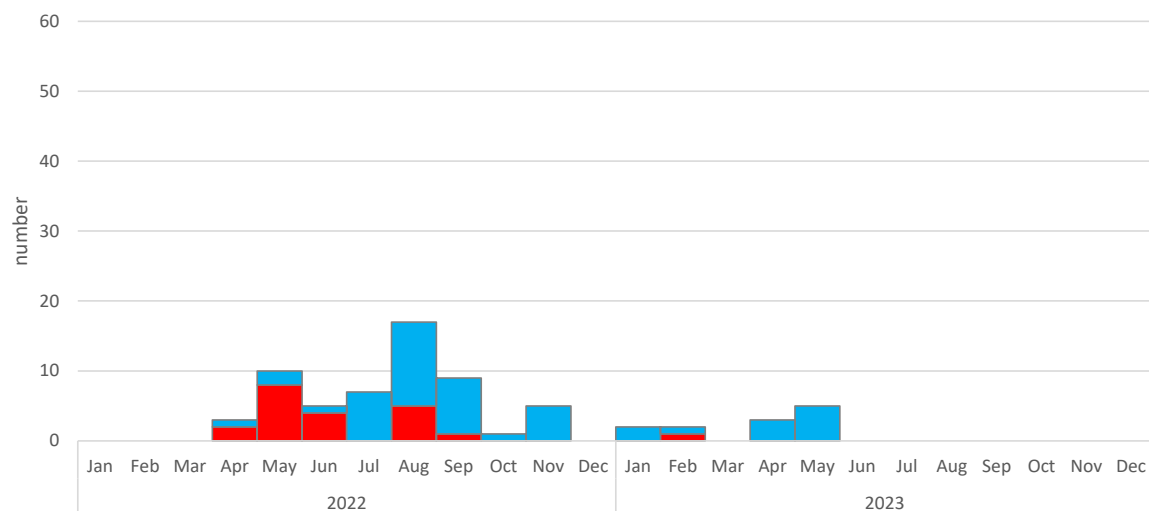
EMR Polio Bulletin - Issue No. 1288, Week 23 (ending on 11/06/2023)

## Afghanistan

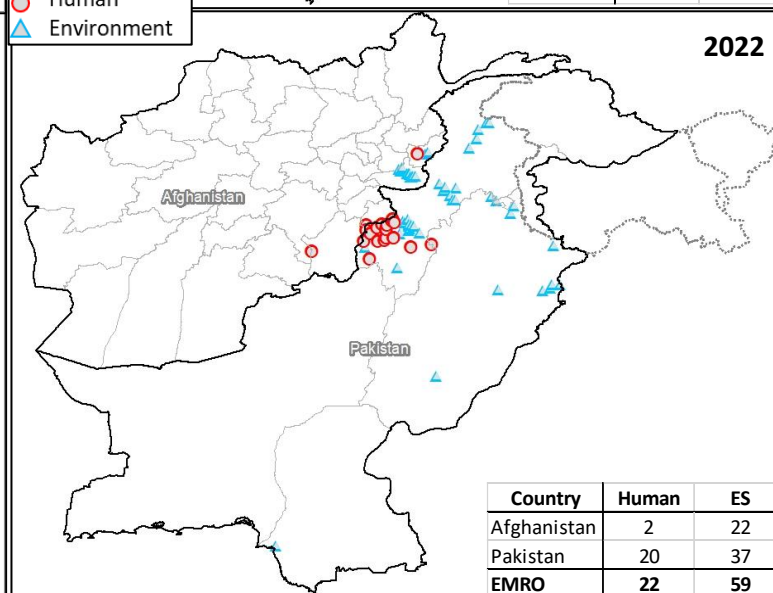


■ Human ■ Environment

## Pakistan



○ Human  
△ Environment



# Virus isolation by country, last 12 months (June 11, 2022 to June 11, 2023)

EMR Polio Bulletin - Issue No. 1288, Week 23 (ending on 11/06/2023)

Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
<b>Human (AFP only)</b>	<b>5</b>	<b>10</b>		<b>6</b>	<b>1</b>	<b>43</b>	<b>65</b>
Wild	5	10					15
cVDPV2				4	1	43	48
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>55</b>	<b>54</b>	<b>2</b>	<b>9</b>	<b>2</b>	<b>58</b>	<b>180</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. 1288, Week 23 (ending on 11/06/2023)

Country	Total year 2021	Total year 2022	11 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	4	0	1	0	0	0	0	0		0	0	2	2		16-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	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	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				
Lebanon ****	0	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	0			
Morocco	0	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	0		
Pakistan	1	20	11	1	0	5	1	0	0		0	1	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	0			
Saudi Arabia	0	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	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	0			
U.A.E	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	0							
EMR	5	22	12	5	0	6	1	0	0	0	0	0	1	0	2	2		16-May-23

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

# Investigation of AFP cases with paralysis onset in 2022 & 2023

EMR Polio Bulletin - Issue No. 1288, Week 23 (ending on 11/06/2023)

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	2467	4	0	2155	0	8	3	24.66	94.37	5368	2	0	5365	1	0	0	24.34	94.41	11-Jun-23
BAHRAIN	7	0	0	4	0	0	0	5.27	100.00	30	0	0	30	0	0	0	10.02	83.33	11-Jun-23
DJIBOUTI	6	0	0	5	0	0	0	3.22	100.00	19	0	0	19	0	0	0	4.65	57.89	10-Jun-23
EGYPT	730	0	0	577	0	8	1	3.99	87.81	1394	0	0	1382	0	10	0	3.48	91.54	8-Jun-23
IRAN	493	0	0	461	0	0	0	5.30	96.55	824	0	0	824	0	0	0	4.06	97.69	10-Jun-23
IRAQ	392	0	0	338	0	11	0	5.03	93.62	835	0	0	835	0	0	0	4.78	91.86	9-Jun-23
JORDAN	48	0	0	46	0	0	0	2.49	100.00	89	0	0	89	0	0	0	2.14	94.38	7-Jun-23
KUWAIT	30	0	0	24	0	1	0	7.85	86.67	52	0	0	52	0	0	0	5.62	98.08	11-Jun-23
LEBANON	40	0	0	24	0	4	0	5.84	75.00	57	0	0	57	0	0	0	3.58	85.96	10-Jun-23
LIBYA	46	0	0	37	0	0	0	4.00	97.83	101	0	0	101	0	0	0	3.89	100.00	10-Jun-23
MOROCCO	46	0	0	18	0	19	1	0.86	52.17	94	0	0	84	0	10	0	0.92	59.57	8-May-23
OMAN	14	0	0	13	0	0	0	2.51	92.86	27	0	0	27	0	0	0	2.10	92.59	11-Jun-23
PAKISTAN	6876	1	0	6063	0	66	1	15.84	86.50	19029	20	1	19008	0	0	0	18.85	85.15	11-Jun-23
PALESTINE	14	0	0	6	0	2	1	1.52	92.86	33	0	0	32	1	0	0	1.64	100.00	8-Jun-23
QATAR	10	0	0	3	0	2	0	5.19	80.00	11	0	0	11	0	0	0	2.44	72.73	11-Jun-23
SAUDI ARABIA	120	0	0	83	0	0	0	3.24	96.67	274	0	0	274	0	0	0	3.18	97.45	11-Jun-23
SOMALIA	188	0	0	167	2	0	0	4.72	96.28	356	0	0	349	6	0	0	4.28	97.47	11-Jun-23
SUDAN	179	0	0	154	0	6	3	1.97	97.21	650	0	0	649	1	0	0	3.25	97.08	13-Apr-23
SYRIA	137	0	0	111	0	0	0	3.98	98.54	382	0	0	382	0	0	0	4.96	94.76	10-Jun-23
TUNISIA	39	0	0	33	0	0	0	3.02	74.36	55	0	0	55	0	0	0	1.91	65.45	9-Jun-23
U.A.E.	28	0	0	17	0	6	0	4.28	92.86	66	0	0	66	0	0	0	4.47	96.97	6-Jun-23
YEMEN	443	0	0	263	0	15	6	6.26	87.36	1377	0	1	1214	162	0	0	8.76	86.64	10-Jun-23
EMR POL	12353	5	0	10602	2	148	16	9.55	89.27	31123	22	2	30905	171	20	0	10.77	88.24	

\* 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

EMR Polio Bulletin - Issue No. 1288, Week 23 (ending on 11/06/2023)

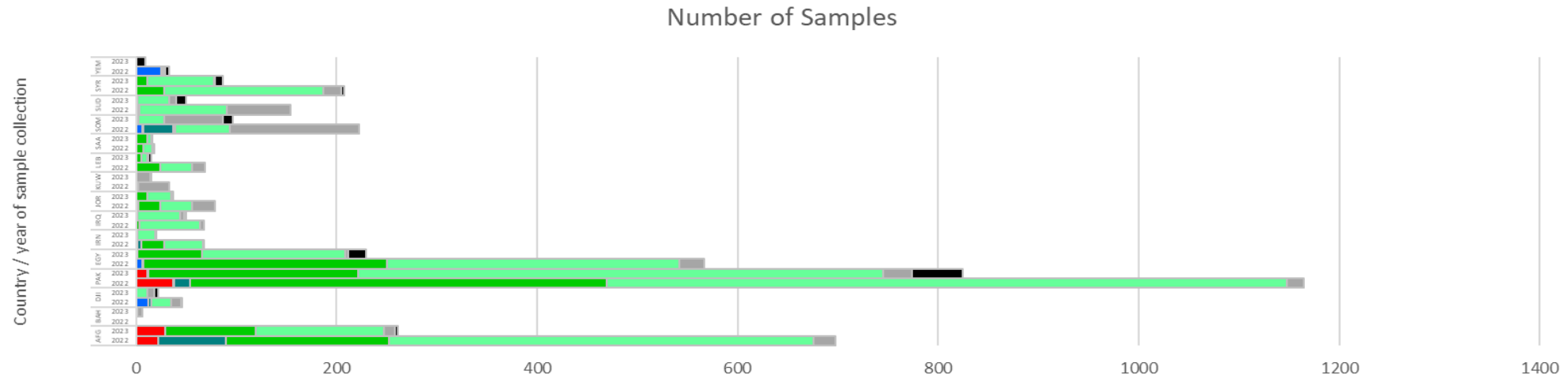
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results													Indicators				Latest report Date
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant 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	2451	131	11	236	1810	164	2	4	85					104			2	2	5	9%	90%	100%	98%	11-Jun-23	
Bahrain	NPL Oman / CDC	7				6	1														0%	100%		0%	8-Jun-23	
Djibouti	NPL Kenya / CDC	6			1	4	1														20%	100%		100%	10-Jun-23	
Egypt	RRL Egypt	688	5		48	568	63	5		3					4						7%	97%	100%	100%	11-Jun-23	
Iran	NPL Iran / CDC	506	4		4	479	17	3		3					1						1%	100%	100%	99%	10-Jun-23	
Iraq	NPL Iraq, RRL Egypt	395	3		24	340	21	7		2					2						7%	100%	100%	99%	10-Jun-23	
Jordan	NPL Jordan, RRL Egypt	48			9	37	2														18%	91%		100%	11-Jun-23	
Kuwait	RRL Kuwait / RIVM	30			3	24	2	1													12%	100%		100%	11-Jun-23	
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	37				33		4													0%	100%			3-Jun-23	
Libya	RRL Tunisia / RIVM	38	1		1	32		4		1											3%	94%	1	100%	4-Jun-23	
Morocco	NPL Morocco, RRL Tunisia	52			2	48	2														2%	98%		90%	9-Jun-23	
Oman	NPL Oman / CDC	14			1	12	1														15%	100%		100%	8-Jun-23	
Pakistan	RRL Pakistan	6756	201	11	643	5397	352	111	1	126					162						9%	87%	100%	96%	11-Jun-23	
Palestine & UNRWA		14				10	1	3													0%	44%		100%	8-Jun-23	
Qatar	NPL Oman / CDC	9				8	1														0%	100%		100%	8-Jun-23	
Saudi Arabia	NPL Saudi Arabia / CDC	112	1		4	107				1											3%	100%	100%	99%	28-May-23	
Somalia	NPL Kenya / CDC	188	6		31	133	7	11		2			2	2		1				1	18%	5%		95%	11-Jun-23	
Sudan	NPL Sudan / RRL Egypt	187	5		28	137		17							1						16%	99%	100%	100%	14-Apr-23	
Syria	NPL Syria / RRL Egypt	123	1		3	106	6	7													3%	100%			3-Jun-23	
Tunisia	RRL Tunisia	76	2		3	71							1		1						3%	97%	1	99%	4-Jun-23	
U.A.E	NPL Oman / CDC	24			1	23															4%	100%		21%	8-Jun-23	
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	346	11		46	224		65		6			1		9						14%	17%	100%	9%	10-Jun-23	
Total EMR 2023		12107	371	22	1088	9609	641	240	5	229			4	2		285			2	2	6	8%	87%	100%	95%	
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

EMR Polio Bulletin - Issue No. 1288, Week 23 (ending on 11/06/2023)

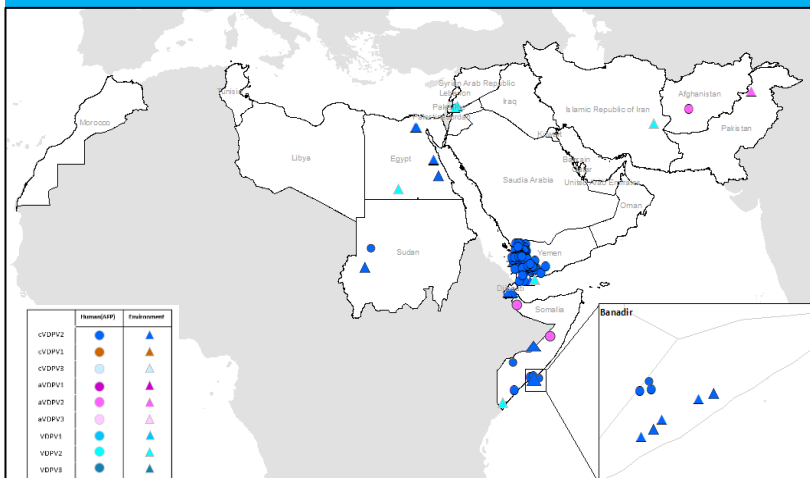


	AFG		BAH		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SAA		SOM		SUD		SYR		YEM	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Wild	22	29					37	11																						
cVDPV2					12				6														6		1				25	
Wild+cVDPV2																														
Wild+aVDPV2																														
Wild+aVDPV3																														
aVDPV1																														
aVDPV2							1																							
aVDPV3																														
VDPV1																														
VDPV2									1	1	1				2								1						2	
VDPV3							1																							
SL2	68				3		16				4												30	2					1	
SL1/3	162	90					415	209	243	65	23	1	3	1	22	11			24	5	7	11	2		2	1	28	11	1	
Entero	424	128		1	20	11	679	524	292	143	39	18	61	43	32	24	2		32	6	9	4	55	26	88	32	159	67		
Negative	22	11		5	10	7	17	29	25	3	1	1	4	4	23	1	31	14	13	1	2	1	128	59	63	7	18	1		
Pending		3			1	4		50		17				2		1		1		3				10		10	3	8	4	9

# VDPVs isolations by Source and Country

EMR Polio Bulletin - Issue No. 1288 Week 23 (ending on 11/06/2023)

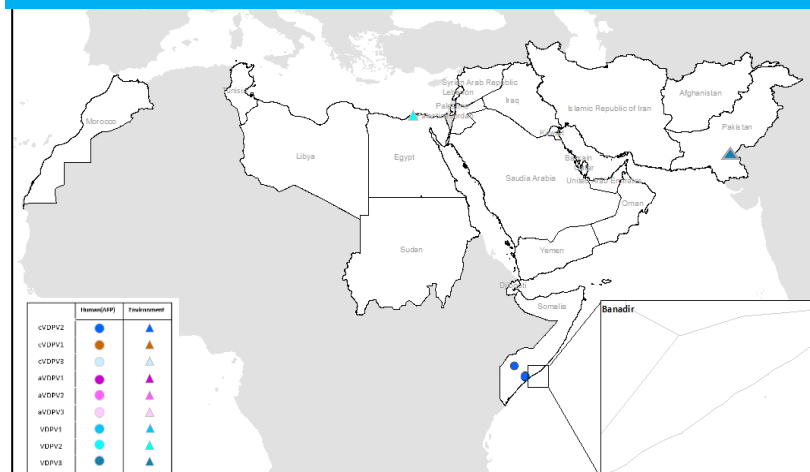
## VDPV Isolates, EMR countries, 2022



## 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			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		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	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																					
	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			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							
	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	27-02-23											67	1		12-01-22							
	Iran																			1		04-02-22							
	Jordan																			2		25-05-22							
	Somalia					1		01-09-22																					
	Yemen																			1		24-04-22							
VDPV3	Pakistan																			1	14-02-23								

## VDPV Isolates, EMR countries, 2023





# Important links

EMR Polio Bulletin - Issue No. 1288, Week 23 (ending on 11/06/2023)

## 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)