

Highlights



Children Paralyzed by polio

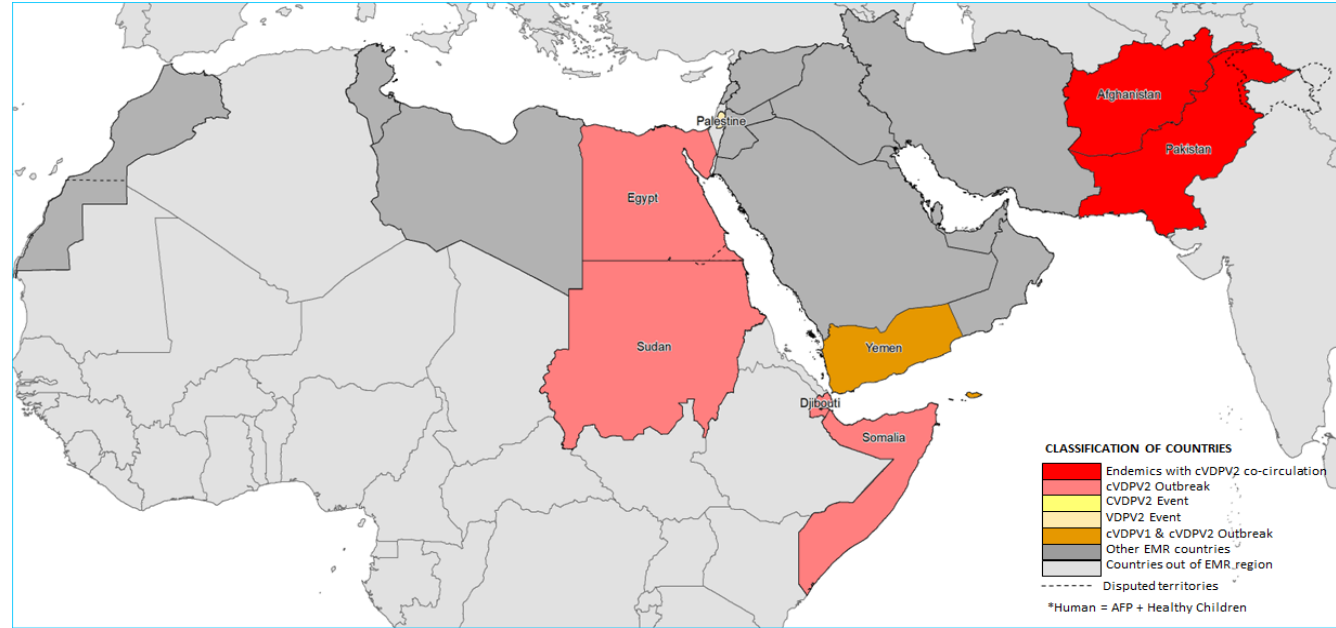
2023	2024
<ul style="list-style-type: none"> 12 cases of Wild Polio 1 <ul style="list-style-type: none"> 06 in Afghanistan 06 in Pakistan 	<ul style="list-style-type: none"> 2 cases of Wild Polio 1 <ul style="list-style-type: none"> 02 in Pakistan
<ul style="list-style-type: none"> 16 cases of cVDPV2 <ul style="list-style-type: none"> 08 in Somalia 08 in Yemen 	<ul style="list-style-type: none"> 2 cases of cVDPV2 <ul style="list-style-type: none"> 01 in Somalia 01 in Yemen
<ul style="list-style-type: none"> Zero cVDPV1 cases 	<ul style="list-style-type: none"> Zero cVDPV1 cases



Sewage water sampling

2023	2024
<ul style="list-style-type: none"> 188 samples Wild Polio 1 <ul style="list-style-type: none"> 62 in Afghanistan 126 in Pakistan 	<ul style="list-style-type: none"> 81 samples Wild Polio 1 <ul style="list-style-type: none"> 10 in Afghanistan 71 in Pakistan
<ul style="list-style-type: none"> 35 samples cVDPV2 <ul style="list-style-type: none"> 11 in Egypt 10 in Yemen 09 in Somalia 05 in Sudan 	<ul style="list-style-type: none"> 2 sample cVDPV2 <ul style="list-style-type: none"> 1 in Sudan 1 in Egypt

Classification of EMR countries by type of poliovirus circulation



Highlights of the week

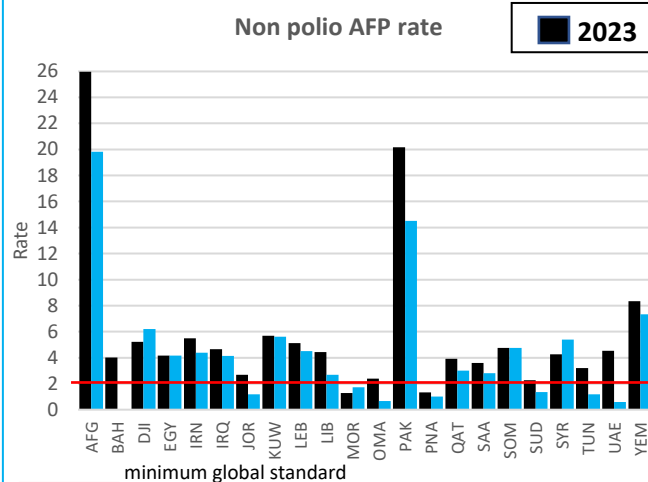
Wild Poliovirus

- No new WPV1 cases reported this week. The WPV1 case count in 2024 is 2 (both from Pakistan), while for 2023, the count remains to be 12 (6 each from Afghanistan and Pakistan).
- Twenty-five new WPV1 positive environmental samples (ES) in 2024, ten from Afghanistan (reported as advance notification in the previous bulletin) and fifteen from Pakistan, were reported this week. The reported WPV1 from ES are as follows:
 - Afghanistan:** 4 from Nangarhar province (2 from Jalalabad and 1 each from Batkot and Behsud districts), 3 from Kandahar province (all from Kandahar district), and one each from Hilmand province (Nahr-E-Saraj district), Ghazni province (Ghazni district), and Kunar province (Asadabad district). Collection dates vary between 22-23 January 2024.
 - Pakistan:** 6 from Balochistan province (3 from Quetta, 2 from Chaman, and 1 from Mastung districts), 5 from Sindh province (4 from Karachi towns, and 1 from Hyderabad district), and 2 each from Khyber Pakhtunkhwa province (both from Peshawar), and Punjab province (1 each from Multan and Faisalabad districts). The sample collection dates vary between 21st February – 5th March 2024.
- The count of the WPV1 positive environmental samples in 2024 to date is 81 (10 from Afghanistan and 71 from Pakistan) and in 2023 the count remains to be 188 (62 in Afghanistan and 126 in Pakistan).

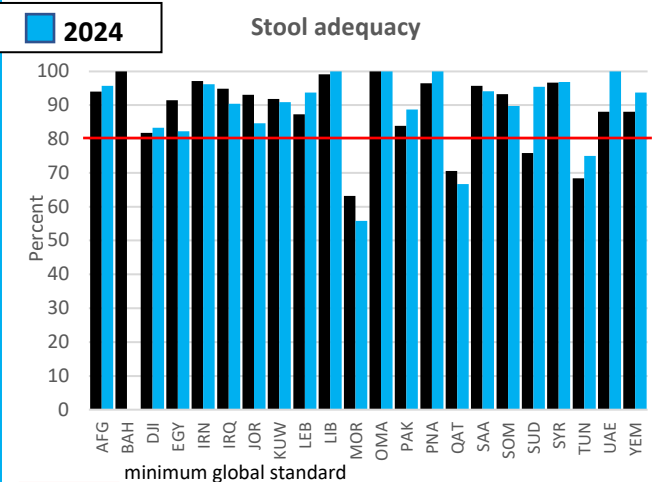
Vaccine derived poliovirus (VDPV)

- No new cVDPV2 isolates reported this week. The total count of cVDPV2 cases to date in 2024 is 2 (1 each from Somalia and Yemen) and in 2023 the count is 16 (8 each from Somalia and Yemen), while the positive environmental samples total count in 2024 is 2 (one each from Egypt and Sudan) and in 2023 the count remains 35 (11 from Egypt, 10 from Yemen, 9 from Somalia, and 5 from Sudan).

Non polio AFP rate



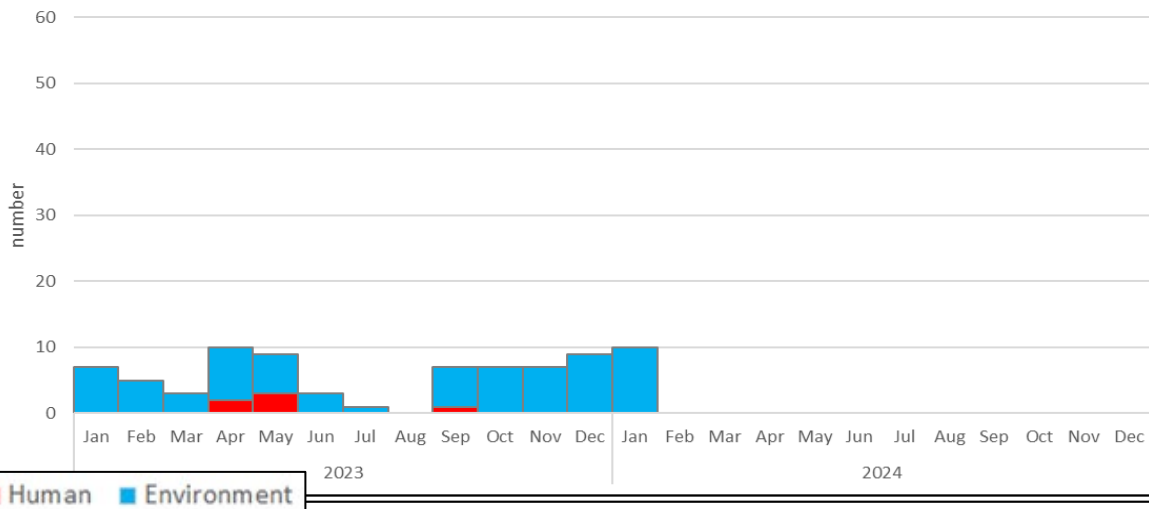
Stool adequacy



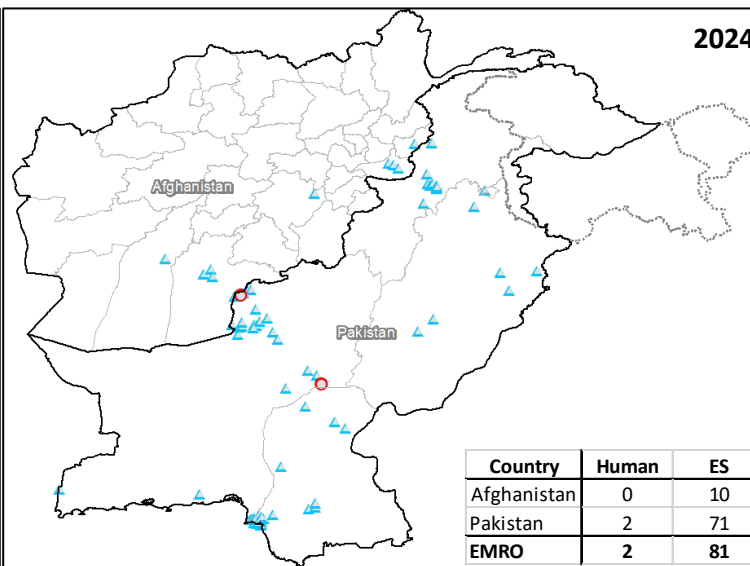
WPV1 Positive isolates from Afghanistan and Pakistan by source

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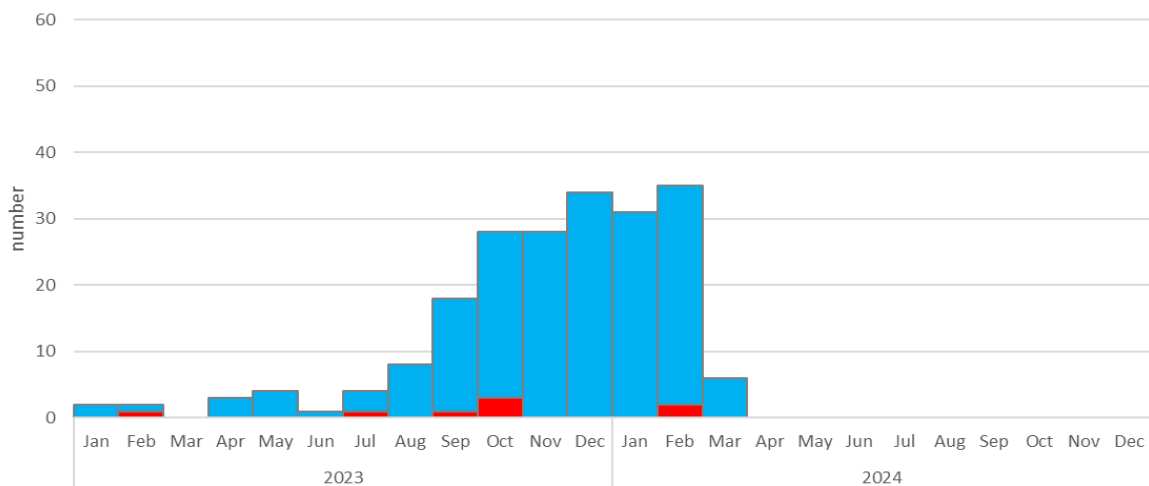
Afghanistan



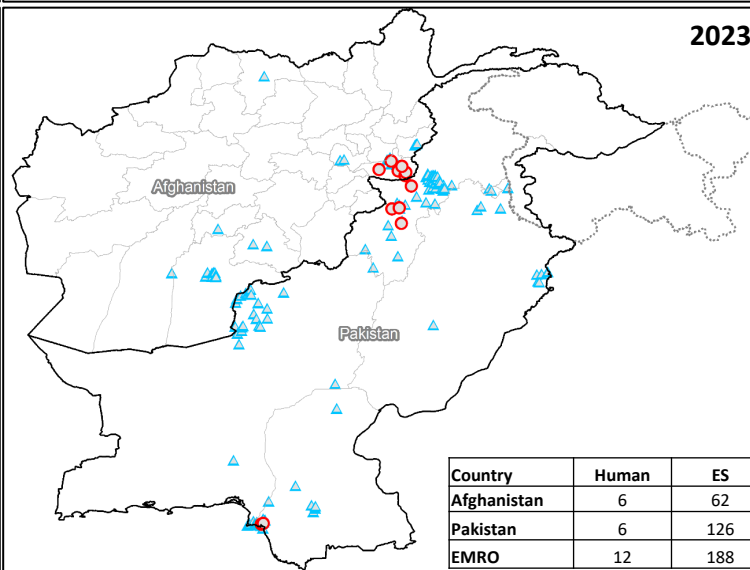
2024



Pakistan



2023



Virus isolation by country, last 12 months (24 Mar. 2023, to 24 Mar. 2024)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
Human (AFP only)	6	7	1	7		10	31
Wild	6	7					13
cVDPV2				7		9	16
aVDPV2						1	1
VDPV2			1				1
Environment	57	194	14	9	7	10	291
Wild	57	193					250
cVDPV2			12	9	6	8	35
aVDPV2			2				2
VDPV2					1	2	3
Wild+VDPV1		1					1
Total	63	201	15	16	7	20	322

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	24 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	0	1	0	0	0				04-Sep-23
Bahrain	0	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	0				
Iran	0	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	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	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					
Morocco	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	20	6	1	2	0	0	0	1	0	1	3	0	0	0	2			29-Feb-24
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	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	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	0	0				
Yemen	0	0	0	0	0	0	0	0	0	0								
EMR	22	12	1	2	2	3	0	1	0	2	3	0	0	0	2	0		29-Feb-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	1026	0	0	257	0	0	0	19.82	95.71	5854	6	0	5846	0	2	0	25.97	94.02	24-Mar-24
BAHRAIN	0	0	0	0	0	0	0	0.00		12	0	0	12	0	0	0	4.01	100.00	24-Mar-24
DJIBOUTI	6	0	0	3	0	0	0	6.20	83.33	22	0	0	22	0	0	0	5.23	81.82	23-Mar-24
EGYPT	395	0	0	256	0	0	0	4.17	82.28	1714	0	0	1706	1	8	0	4.16	91.48	21-Mar-24
IRAN	211	0	0	184	0	0	0	4.38	96.21	1150	0	0	1150	0	0	0	5.48	97.13	24-Mar-24
IRAQ	167	0	0	132	0	0	0	4.14	90.42	820	0	0	820	0	0	0	4.66	94.88	23-Mar-24
JORDAN	13	0	0	7	0	0	0	1.18	84.62	116	0	0	116	0	0	0	2.68	93.10	21-Mar-24
KUWAIT	11	0	0	10	0	0	0	5.62	90.91	49	0	0	49	0	0	0	5.69	91.84	24-Mar-24
LEBANON	16	0	0	7	0	0	0	4.50	93.75	79	0	0	79	0	0	0	5.11	87.34	24-Mar-24
LIBYA	16	0	0	2	0	0	0	2.68	100.00	115	0	0	115	0	0	0	4.43	99.13	23-Mar-24
MOROCCO	43	0	0	0	0	0	0	1.74	55.81	152	0	0	61	0	86	4	1.29	63.16	22-Mar-24
OMAN	2	0	0	1	0	0	0	0.68	100.00	30	0	0	30	0	0	0	2.38	100.00	21-Mar-24
PAKISTAN	3276	2	0	2677	0	0	0	14.51	88.71	19736	6	0	19601	0	108	0	20.18	83.92	24-Mar-24
PALESTINE	5	0	0	0	0	0	0	1.02	100.00	28	0	0	26	0	2	1	1.35	96.43	17-Mar-24
QATAR	3	0	0	0	0	0	0	3.00	66.67	17	0	0	17	0	0	0	3.91	70.59	17-Mar-24
SAUDI ARABIA	51	0	0	5	0	0	0	2.81	94.12	301	0	0	301	0	0	0	3.60	95.68	24-Mar-24
SOMALIA	98	0	0	76	1	0	0	4.75	89.80	427	0	0	419	8	0	0	4.74	93.21	24-Mar-24
SUDAN	65	0	0	0	0	0	0	1.36	95.38	473	0	0	443	0	26	0	2.28	75.90	24-Mar-24
SYRIA	96	0	0	54	0	0	0	5.38	96.88	332	0	0	332	0	0	0	4.27	96.69	23-Mar-24
TUNISIA	8	0	0	2	0	0	0	1.18	75.00	95	0	0	95	0	0	0	3.20	68.42	17-Mar-24
U.A.E.	2	0	0	0	0	0	0	0.59	100.00	67	0	0	67	0	0	0	4.54	88.06	13-Mar-24
YEMEN	269	0	0	97	1	0	0	7.33	93.68	1331	0	0	1262	9	54	44	8.33	88.05	24-Mar-24
EMR POL	5779	2	0	3770	2	0	0	8.63	90.12	32920	12	0	32569	18	286	49	11.29	87.25	

* 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)

Laboratory investigation of AFP cases with paralysis onset in 2024

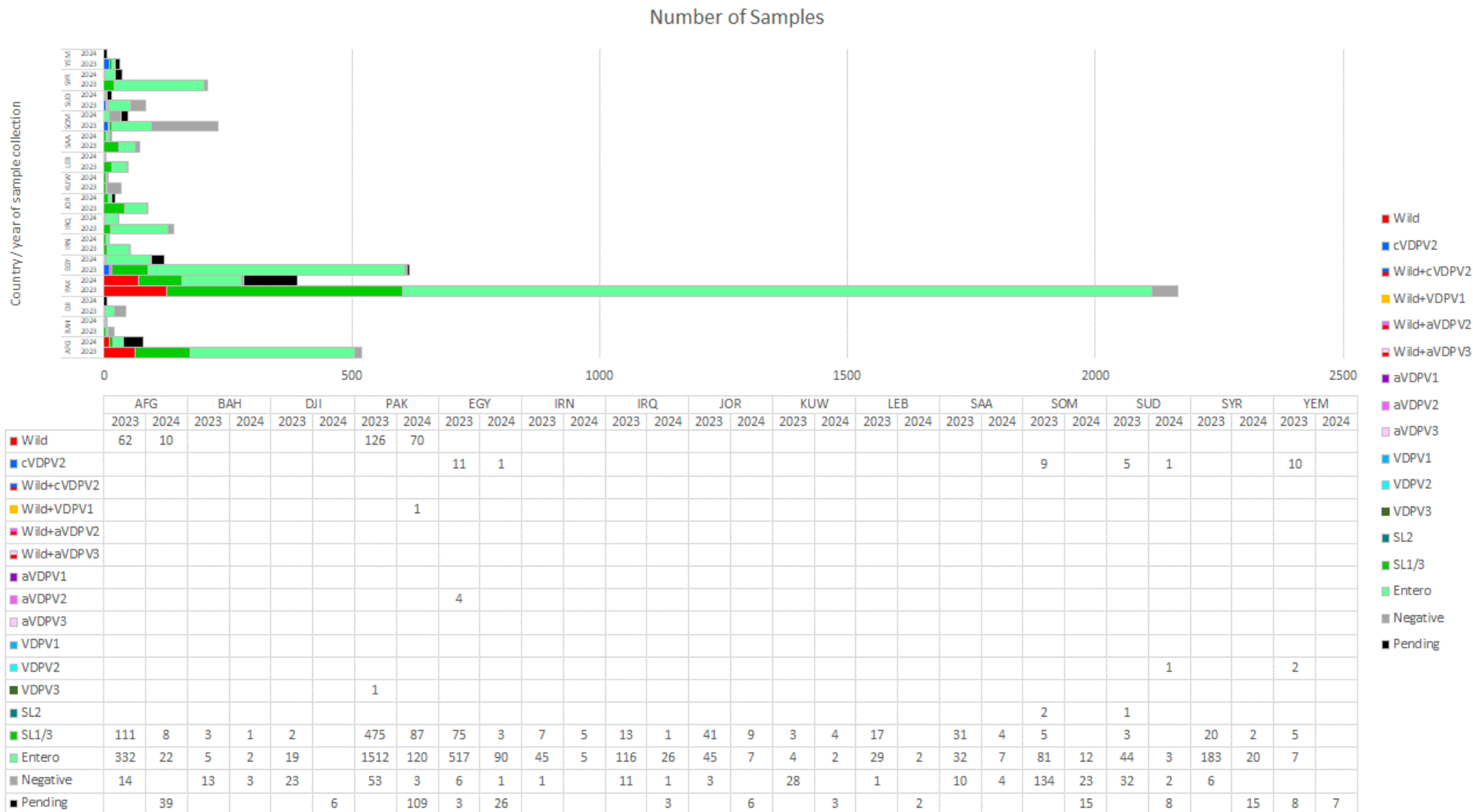
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Country	Polio laboratories		AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results										Indicators				Latest report Date			
	ITD / Nucleotide Sequencing			Referred for ITD		NPEV 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 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		1060	12	2	31	212	424	1		8					10							9%	100%	100%	100%	24-Mar-24
Bahrain	NPL Oman / CDC																										24-Mar-24
Djibouti	NPL Kenya / CDC		6				3	2	1													0%	33%		100%	23-Mar-24	
Egypt	RRL Egypt		378	4		13	293	56	12	1						2						4%	96%	100%	100%	21-Mar-24	
Iran	NPL Iran / CDC		237	2		2	208	25		1						2						1%	100%	100%	100%	23-Mar-24	
Iraq	NPL Iraq, RRL Egypt		172	6		21	124	19	2	2						4						14%	100%	100%	99%	22-Mar-24	
Jordan	NPL Jordan, RRL Egypt		13				10	3														0%	70%		90%	24-Mar-24	
Kuwait	RRL Kuwait / RIVM		11	1		1	8	1												1		6%	80%		100%	21-Mar-24	
Lebanon	NPL Syria, RRL Egypt		7				7															0%	100%			7-Mar-24	
Libya	RRL Tunisia / RIVM		2				2															0%	100%		100%	13-Mar-24	
Morocco	NPL Morocco, RRL Tunisia		31				27	4														0%	100%		100%	22-Mar-24	
Oman	NPL Oman / CDC		2				2															5%	100%		100%	24-Mar-24	
Pakistan	RRL Pakistan		3241	186	5	291	2446	282	7	2	111					126						7%	100%	100%	98%	24-Mar-24	
Palestine & UNRWA			5				4		1													0%	25%		100%	17-Mar-24	
Qatar	NPL Oman / CDC		2				2															0%	100%		100%	24-Mar-24	
Saudi Arabia	NPL Saudi Arabia / CDC		41	2		5	32		2							1				1		12%	90%	50%	100%	17-Mar-24	
Somalia	NPL Kenya / CDC		98	3		9	65	6	15	2						1						12%	1%		88%	24-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		8				8															0%	100%		100%	13-Mar-24	
U.A.E	NPL Oman / CDC																					0%				24-Mar-24	
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt		121	3		24	94		1	1						1						17%	48%	100%	23%	24-Mar-24	
Total EMR 2024			5521	219	7	401	3613	822	58	2	126				2	147				1	1	7%	96%	100%	96%		
Total EMR 2023			32164	1012	81	4507	26479	1	77	12	656				8	22	766			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

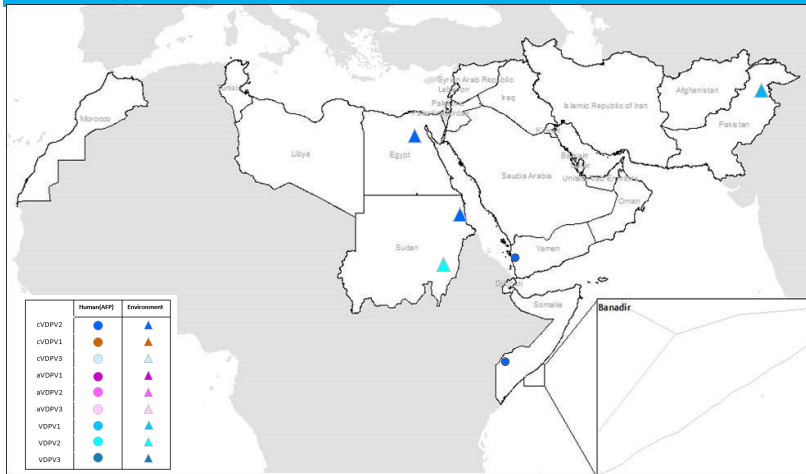
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VDPVs isolations by Source and Country

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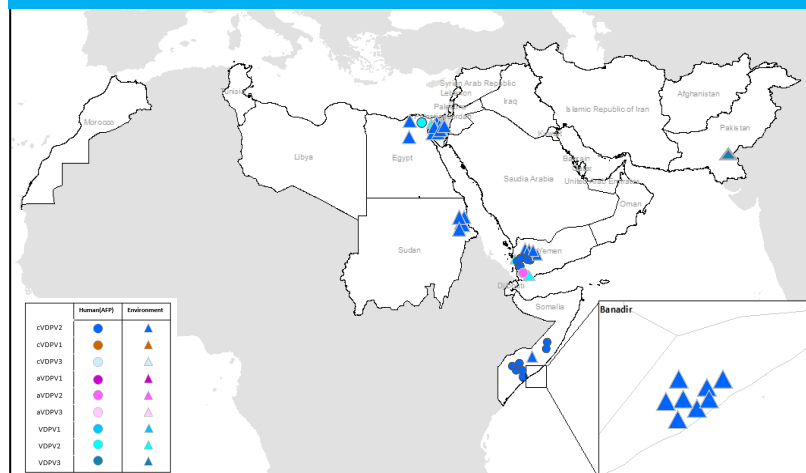
VDPV Isolates, EMR countries, 2024



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	1	20-01-24	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	8	1	17-01-24		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								
VDPV1	Egypt																1				11-07-21								
	Pakistan																		1		14-02-24								
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)