

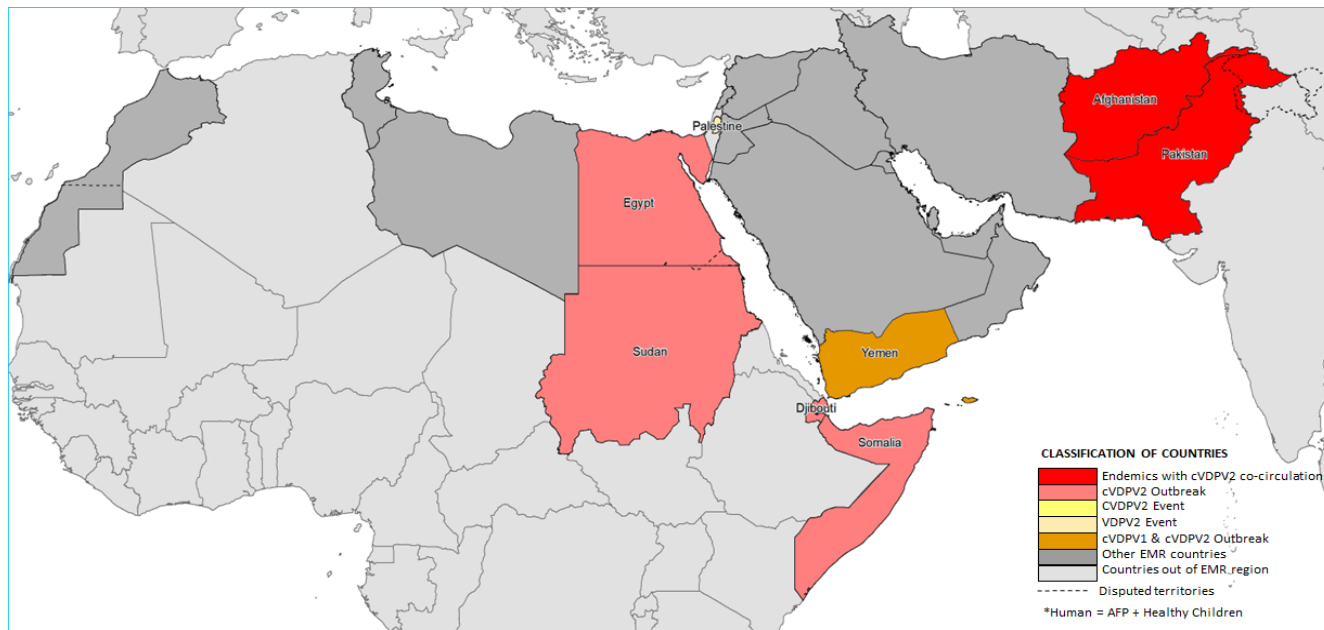


Highlights

 Children Paralyzed by polio	2023 <ul style="list-style-type: none"> 12 cases of Wild Polio 1 <ul style="list-style-type: none"> - 06 in Afghanistan - 06 in Pakistan 	2024 <ul style="list-style-type: none"> 4 cases of Wild Polio 1 <ul style="list-style-type: none"> - 02 in Afghanistan - 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
 Sewage water sampling	2023 <ul style="list-style-type: none"> 188 samples Wild Polio 1 <ul style="list-style-type: none"> - 62 in Afghanistan - 126 in Pakistan 35 samples cVDPV2 <ul style="list-style-type: none"> - 11 in Egypt - 10 in Yemen - 09 in Somalia - 05 in Sudan 	2024 <ul style="list-style-type: none"> 110 samples Wild Polio 1 <ul style="list-style-type: none"> - 15 in Afghanistan - 95 in Pakistan 2 sample cVDPV2 <ul style="list-style-type: none"> - 1 in Sudan - 1 in Egypt
	<ul style="list-style-type: none"> Zero cVDPV1 cases 	<ul style="list-style-type: none"> Zero cVDPV1 cases

Classification of EMR countries by type of poliovirus circulation



Highlights of the week

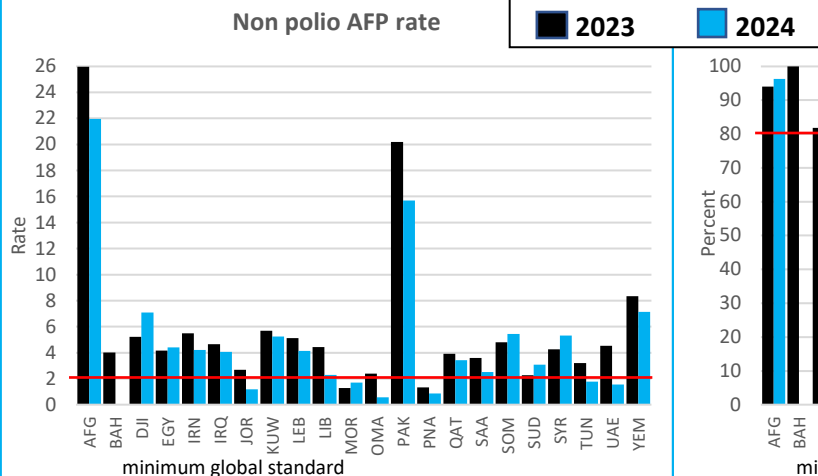
Wild Poliovirus

- One new WPV1 case reported from Afghanistan this week. The new WPV1 case is from Kamdesh district of Nuristan province, with date of onset on 20th February 2024. The WPV1 case count in 2024 to date is 4 (2 each from Afghanistan and Pakistan), while for 2023, the count remains to be 12 (6 each from Afghanistan and Pakistan).
- Seventeen new WPV1 positive environmental samples (ES) in 2024 reported this week as follows:
 - Afghanistan reported 5 WPV1 positive ES: 4 from Nangarhar province (2 from Jalalabad, and 1 each from Batikot and Behsud districts), and 1 from Kandahar district of Kandahar province. The sample collection date vary between 21st to 22nd February 2024.
 - Pakistan reported 12 WPV1 ES: 7 from Balochistan province (3 from Quetta, and 1 each from Usta Muhammad, Mastung, Sibi, and Nsirabad), 3 from Sindh province (1 each from Karachi East, Karachi South, and Korangi towns), and 2 from Khyber Pakhtunkhwa province (1 each from Peshawar and Kohat districts). The sample collection dates vary between 14th to 19th March 2024.
- The count of the WPV1 positive environmental samples in 2024 to date is 110 (15 from Afghanistan and 95 from Pakistan) and in 2023, the count remains to be 188 (62 in Afghanistan and 126 in Pakistan).

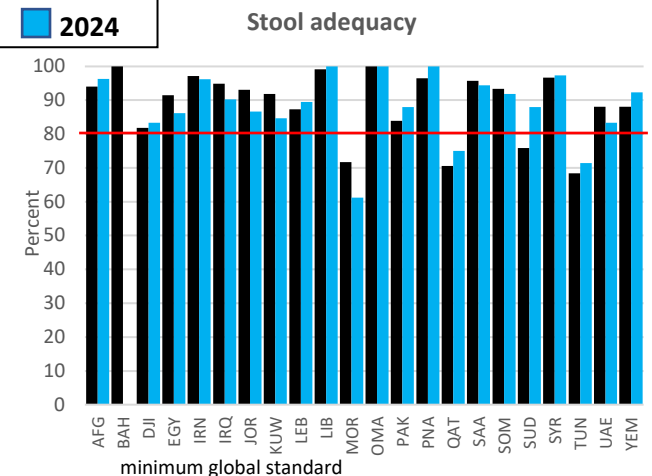
Vaccine derived poliovirus (VDPV)

- 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



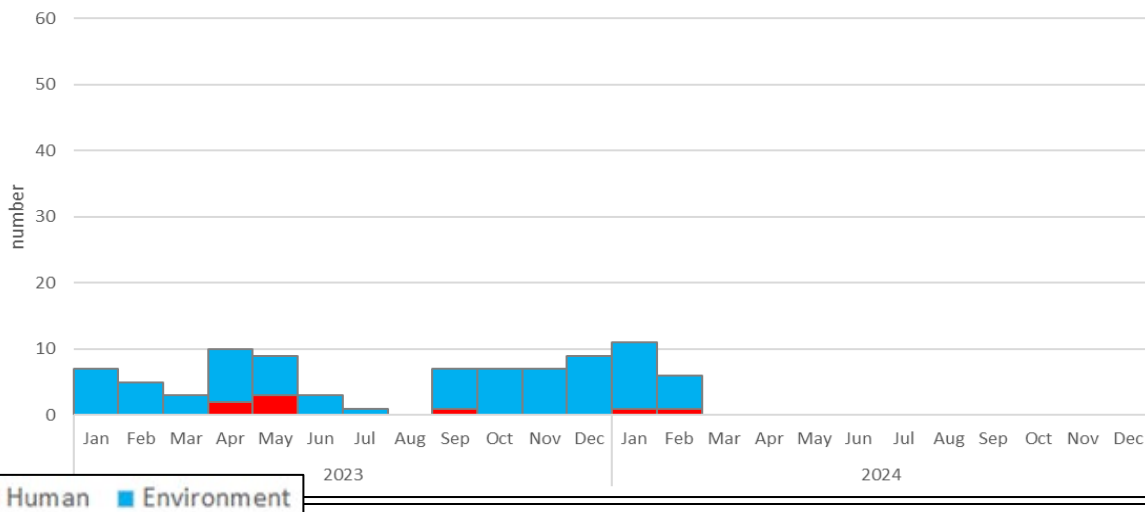
Stool adequacy



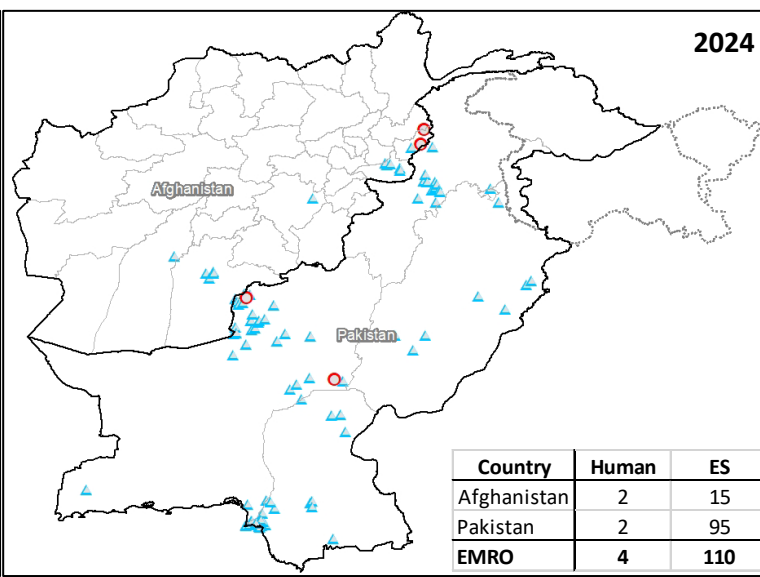
WPV1 Positive isolates from Afghanistan and Pakistan by source

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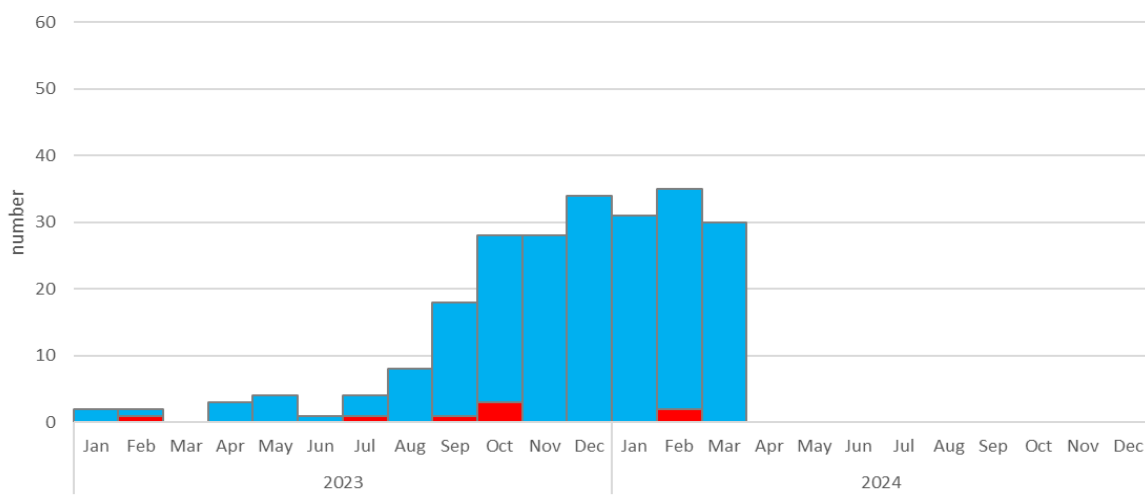
Afghanistan



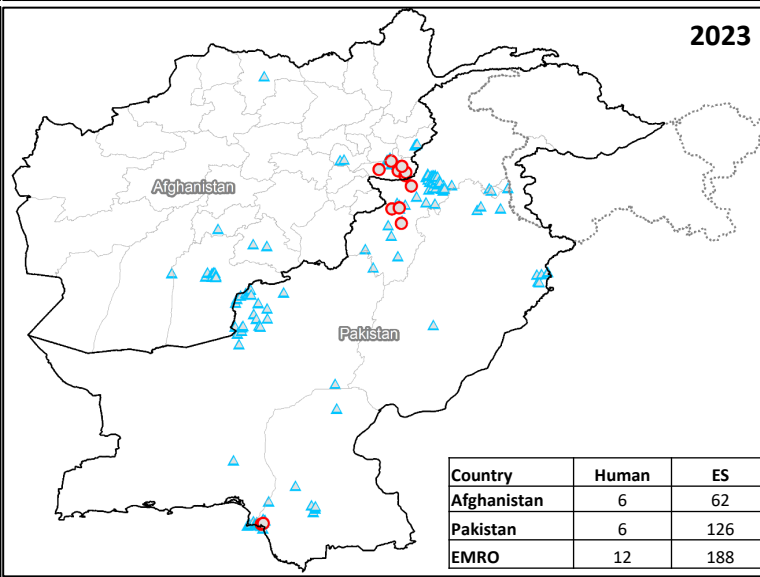
2024



Pakistan



2023



Virus isolation by country, last 12 months (7 Apr. 2023, to 7 Apr. 2024)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
Human (AFP only)	8	7	1	7		10	33
Wild	8	7					15
cVDPV2				7		9	16
aVDPV2						1	1
VDPV2			1				1
Environment	59	218	13	9	7	10	316
Wild	59	217					276
cVDPV2			12	9	6	8	35
aVDPV2			1				1
VDPV2					1	2	3
Wild+VDPV1		1					1
Total	67	225	14	16	7	20	349

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	7 April		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case	
			2023	2024	2023								2024					
					May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
Afghanistan	2	6	0	2	3	0	0	0	0	1	0	0	0	1	1			20-Feb-24
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				
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				
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				
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						
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	0		
Pakistan	20	6	1	2	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	0			
Qatar	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						
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					
Yemen	0	0	0	0	0	0	0	0	0	0	0							
EMR	22	12	1	4	3	0	1	0	2	3	0	0	1	3	0	0	0	29-Feb-24

**** 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	1327	2	0	829	0	4	0	21.95	96.23	5855	6	0	5849	0	0	0	25.97	93.99	7-Apr-24
BAHRAIN	0	0	0	0	0	0	0	0.00		12	0	0	12	0	0	0	4.01	100.00	7-Apr-24
DJIBOUTI	6	0	0	3	0	0	0	7.09	83.33	22	0	0	22	0	0	0	5.23	81.82	30-Mar-24
EGYPT	499	0	0	342	0	2	0	4.40	86.17	1714	0	0	1713	1	1	0	4.16	91.48	4-Apr-24
IRAN	238	0	0	207	0	0	0	4.21	96.22	1150	0	0	1150	0	0	0	5.48	97.13	6-Apr-24
IRAQ	195	0	0	151	0	2	0	4.06	90.26	820	0	0	820	0	0	0	4.66	94.88	6-Apr-24
JORDAN	15	0	0	12	0	0	0	1.18	86.67	116	0	0	116	0	0	0	2.68	93.10	4-Apr-24
KUWAIT	13	0	0	10	0	0	0	5.25	84.62	49	0	0	49	0	0	0	5.69	91.84	31-Mar-24
LEBANON	19	0	0	12	0	0	0	4.13	89.47	79	0	0	79	0	0	0	5.11	87.34	30-Mar-24
LIBYA	16	0	0	2	0	0	0	2.30	100.00	115	0	0	115	0	0	0	4.43	99.13	23-Mar-24
MOROCCO	49	0	0	0	0	8	1	1.70	61.22	152	0	0	72	0	80	0	1.29	71.71	29-Mar-24
OMAN	2	0	0	2	0	0	0	0.59	100.00	30	0	0	30	0	0	0	2.38	100.00	4-Apr-24
PAKISTAN	4120	2	0	3193	0	25	0	15.69	87.94	19751	6	0	19716	0	29	0	20.20	83.86	7-Apr-24
PALESTINE	5	0	0	1	0	0	0	0.87	100.00	28	0	0	26	0	2	1	1.35	96.43	31-Mar-24
QATAR	4	0	0	0	0	0	0	3.42	75.00	17	0	0	17	0	0	0	3.91	70.59	31-Mar-24
SAUDI ARABIA	53	0	0	14	0	1	0	2.51	94.34	301	0	0	301	0	0	0	3.60	95.68	31-Mar-24
SOMALIA	134	0	0	105	1	0	0	5.43	91.79	433	0	0	425	8	0	0	4.81	93.30	7-Apr-24
SUDAN	75	0	0	0	0	3	1	3.08	88.00	473	0	0	445	0	28	1	2.28	75.90	31-Mar-24
SYRIA	111	0	0	92	0	0	0	5.32	97.30	332	0	0	332	0	0	0	4.27	96.69	6-Apr-24
TUNISIA	14	0	0	9	0	0	0	1.77	71.43	95	0	0	95	0	0	0	3.20	68.42	5-Apr-24
U.A.E.	6	0	0	0	0	0	0	1.57	83.33	67	0	0	67	0	0	0	4.54	88.06	1-Apr-24
YEMEN	311	0	0	117	1	2	1	7.15	92.28	1331	0	0	1311	9	11	1	8.33	88.05	7-Apr-24
EMR POL	7212	4	0	5101	2	47	3	9.56	89.93	32942	12	0	32762	18	151	3	11.30	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

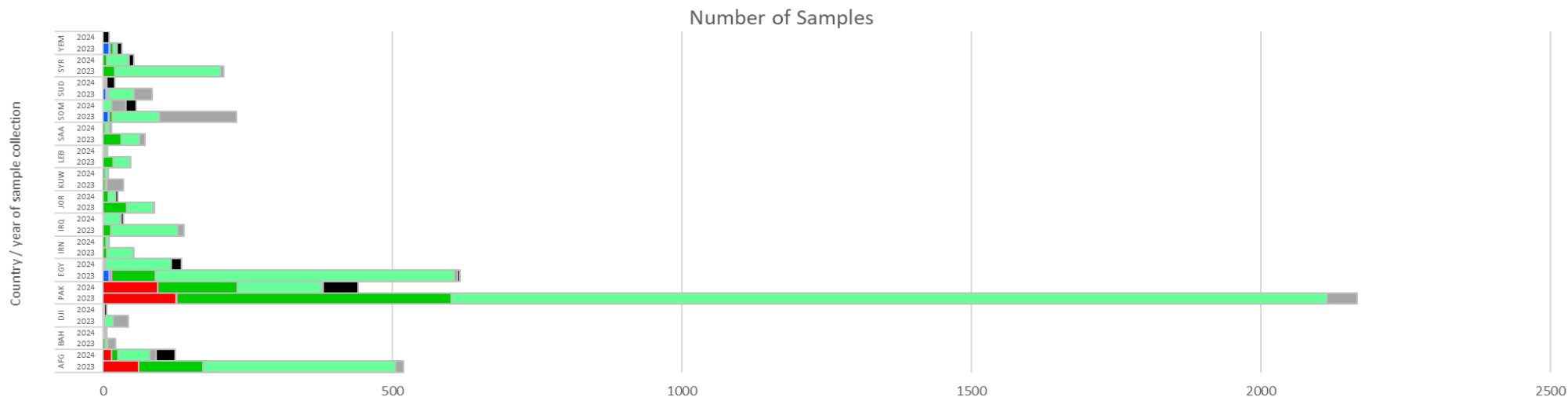
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Country	Polio laboratories		AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results										Indicators				Latest report Date			
	ITD / Nucleotide Sequencing			Referred for ITD		NPEV 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		1306	38	7	68	675	360	132	2	24					31							7%	99%	100%	70%	7-Apr-24
Bahrain	NPL Oman / CDC																										4-Apr-24
Djibouti	NPL Kenya / CDC		6			3		3														0%	33%		100%	30-Mar-24	
Egypt	RRL Egypt		452	4		16	364	65	3		1					2						4%	97%	100%	100%	4-Apr-24	
Iran	NPL Iran / CDC		270	2		3	223	24	18		1					2						1%	100%	100%	100%	6-Apr-24	
Iraq	NPL Iraq, RRL Egypt		201	7		24	139	29	2		2					5						14%	100%	100%	99%	6-Apr-24	
Jordan	NPL Jordan, RRL Egypt		15			2	11	2														15%	77%		92%	4-Apr-24	
Kuwait	RRL Kuwait / RIVM		13	1		1	9	2													1	5%	82%		100%	6-Apr-24	
Lebanon	NPL Syria, RRL Egypt		13				13															0%	100%			4-Apr-24	
Libya	RRL Tunisia / RIVM		13				13															0%	100%		38%	4-Apr-24	
Morocco	NPL Morocco, RRL Tunisia		43				36	6	1													0%	100%		100%	5-Apr-24	
Oman	NPL Oman / CDC		2				2															5%	100%		100%	4-Apr-24	
Pakistan	RRL Pakistan		4071	240	7	335	2898	442	98	2	141					166		1				7%	100%	100%	98%	7-Apr-24	
Palestine & UNRWA			5				5															0%	20%		100%	31-Mar-24	
Qatar	NPL Oman / CDC		4				2	2														0%	100%		100%	4-Apr-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		134	3		14	89	8	20		2				1	1						13%	3%		89%	7-Apr-24	
Sudan	NPL Sudan / RRL Egypt		53			3	10	40														23%	100%		69%	14-Apr-23	
Syria	NPL Syria / RRL Egypt		109			2	92	15														3%	100%			4-Apr-24	
Tunisia	RRL Tunisia		13				10	3														0%	100%		100%	4-Apr-24	
U.A.E	NPL Oman / CDC																					0%				4-Apr-24	
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt		120	3		24	93		1		1				1	1						17%	49%	100%	24%	7-Apr-24	
Total EMR 2024			6884	300	14	497	4719	998	280	4	172				2		209	1		1	1	7%	96%	100%	92%		
Total EMR 2023			32170	1012	81	4527	26507		36	12	656				8	22		766		4	3	12%	90%	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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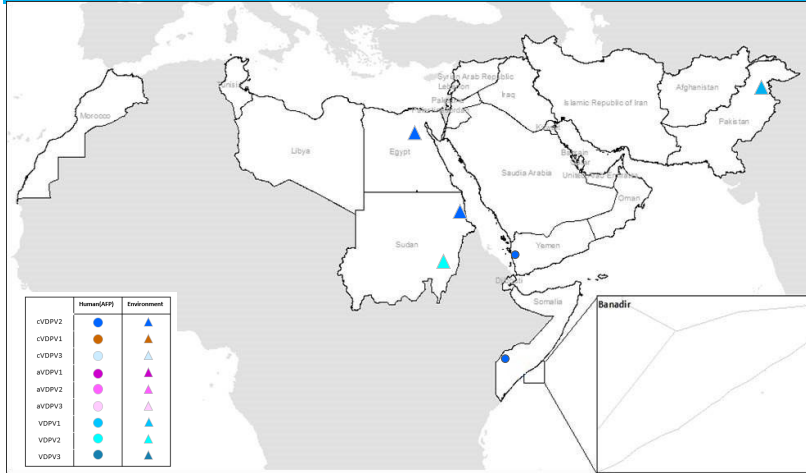


	AFG		BAH		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SAA		SOM		SUD		SYR		YEM	
	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024
Wild	62	15					126	94																						
cVDPV2																														
Wild+cVDPV2																														
Wild+VDPV1								1																						
Wild+aVDPV2																														
Wild+aVDPV3																														
aVDPV1																														
aVDPV2									4																					
aVDPV3																														
VDPV1																														
VDPV2																														
VDPV3								1																						
SL2																							2		1					
SL1/3	111	11	3	1	2		475	137	75	3	7	5	13	1	41	9	3	4	17	2	31	4	5		3		20	6	5	
Enterovirus	332	54	5	2	16		1512	145	517	113	45	5	116	29	45	12	4	5	29	5	32	7	81	15	44	3	183	38	7	
Negative	14	11	13	3	26	2	53	3	6	1	1		11	1	3	1	28		1	1	10	4	134	24	32	2	6	1		
Pending		34				4		60	3	18				4		3								18		13		8	8	11

VDPVs isolations by Source and Country

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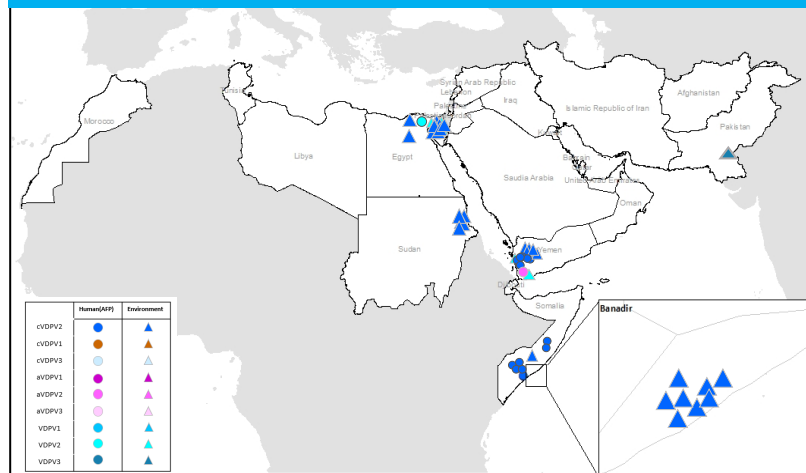
VDPV Isolates, EMR countries, 2024



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

EMR Polio Bulletin - Issue No. 1331, Week 14 (ending on 07/04/2024)

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)