

EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1328, Week 11 (ending on 17/03/2024)

Highlights



Children
Paralyzed
by polio

2023

- 12 cases of Wild Polio 1
 - 06 in Afghanistan
 - 06 in Pakistan

- 16 cases of cVDPV2
 - 08 in Somalia
 - 08 in Yemen

- Zero cVDPV1 cases

2024

- 2 cases of Wild Polio 1
 - 02 in Pakistan

- 2 cases of cVDPV2
 - 01 in Somalia
 - 01 in Yemen

- Zero cVDPV1 cases



Sewage
water
sampling

2023

- 188 samples Wild Polio 1
 - 62 in Afghanistan
 - 126 in Pakistan

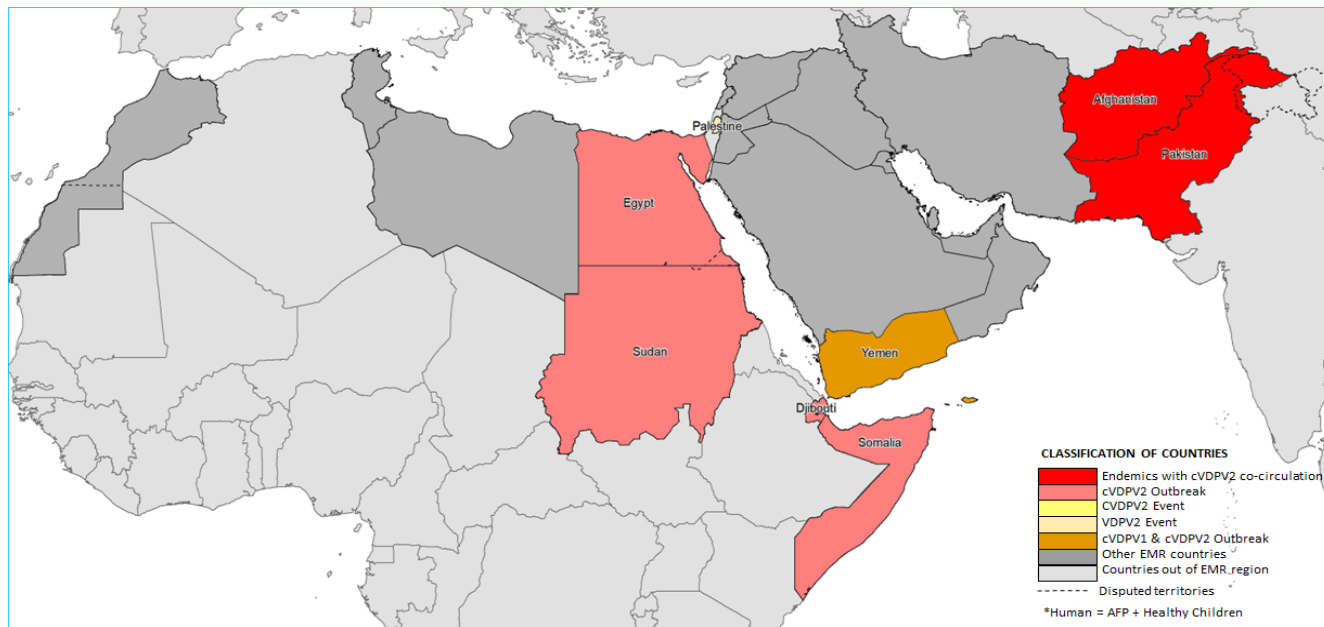
- 35 samples cVDPV2
 - 11 in Egypt
 - 10 in Yemen
 - 09 in Somalia
 - 05 in Sudan

2024

- 55 samples Wild Polio 1
 - 55 in Pakistan

- 2 sample cVDPV2
 - 1 in Sudan
 - 1 in Egypt

Classification of EMR countries by type of poliovirus circulation



Highlights of the week

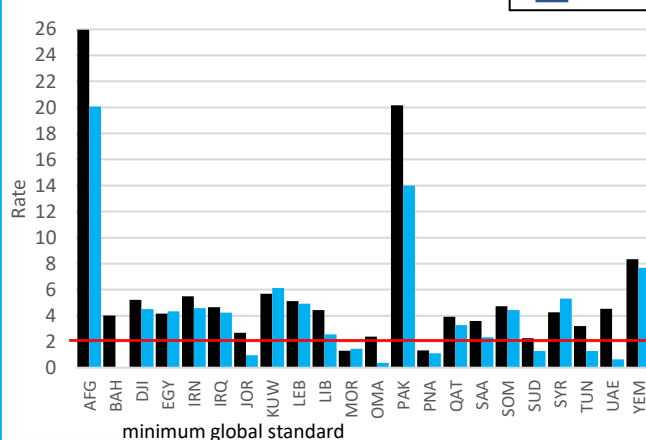
Wild Poliovirus

- Two new WPV1 cases reported from Pakistan this week. The WPV1 cases were reported from Balochistan province, one each from Dera Bugti and Chaman districts, with dates of onset as 22nd and 29th February 2024 respectively. 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-one new WPV1 positive environmental samples (ES), all from Pakistan, were reported this week. The reported ES are as follows: 11 from Sindh, 5 from Balochistan, 3 from Khyber-Pakhtunkhwa, and 1 each from Punjab and Islamabad provinces. The collection dates vary between 13-21 February 2024. The count of the WPV1 positive environmental samples in 2024 to date is 55 (all from Pakistan) and in 2023 the count remains to be 188 (62 in Afghanistan and 126 in Pakistan).

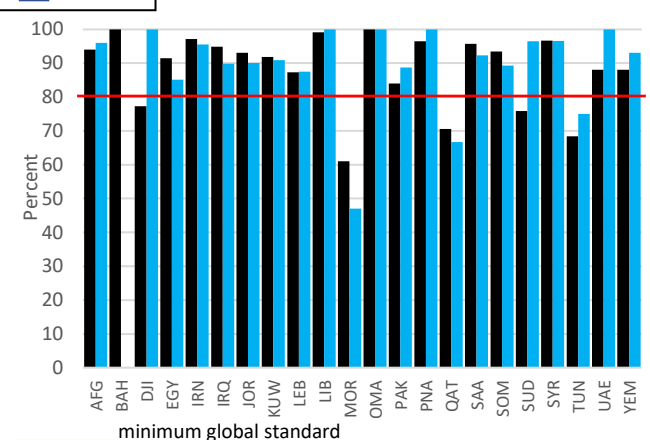
Vaccine derived poliovirus (VDPV)

- Three new cVDPV2 cases were reported this week: one from Somalia and two from Yemen. The reported case from Somalia is from Bardera district of Gedo province with date of onset on 20th January 2024, while Yemen reported 2 new cases from Al Hudaidah province (one each from Al Ganawis and Al Zeidyah districts). The dates of onset are 28th December 2023 and 17th January 2024 respectively. The total count of cVDPV2 cases to date in 2024 is 2 (1 each from Somalia and Yemen) while in 2023 the count is 16 (8 each from Somalia and Yemen).
- No new cVDPV2 positive environmental samples reported this week; The total count in 2024 is 2 (one each from Egypt and Sudan). In 2023 the count remains 35 (11 from Egypt, 10 from Yemen, 9 from Somalia, and 5 from Sudan).
- One new VDPV1 positive environmental sample was reported from Pakistan this week. The new VDPV1 ES was reported from CDA district of Islamabad province with collection date on 14th January 2024.

Non polio AFP rate



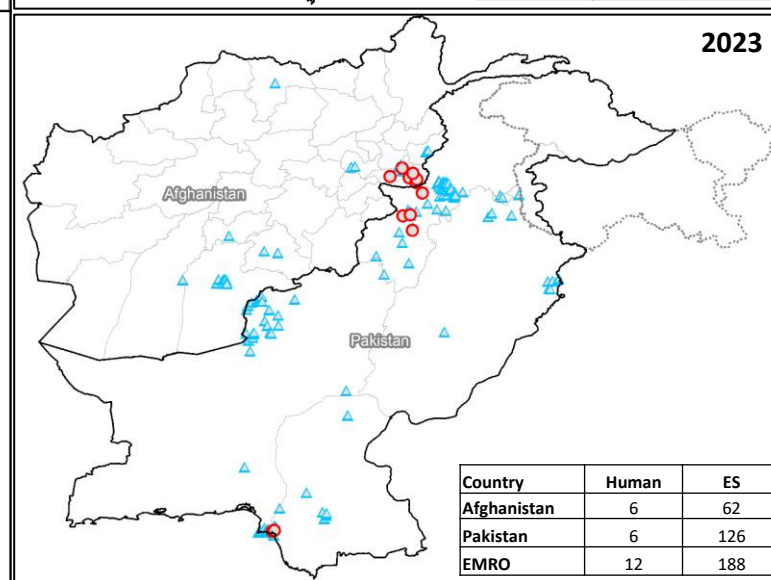
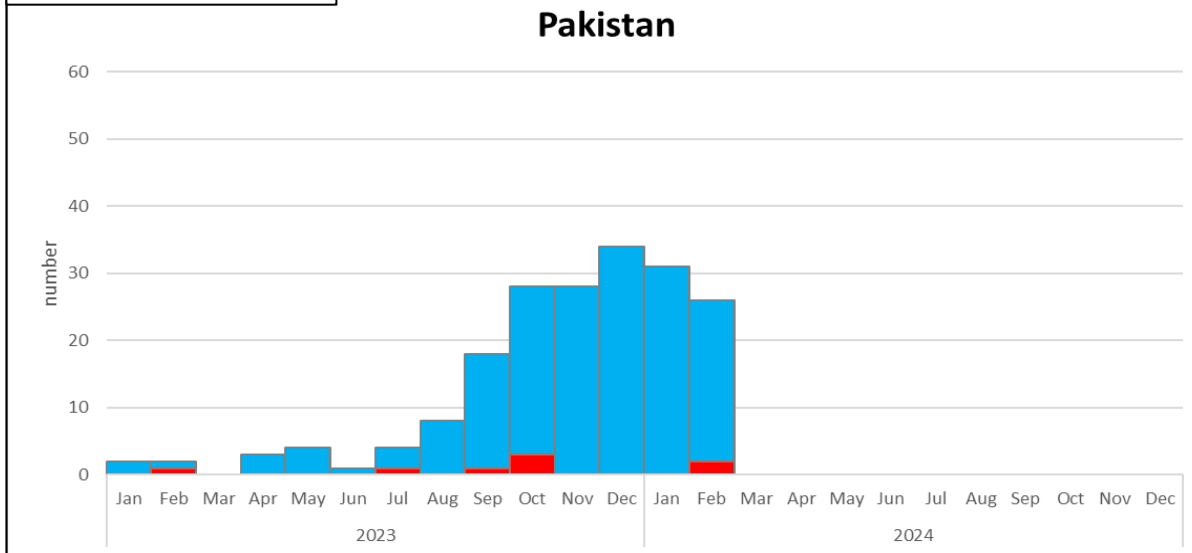
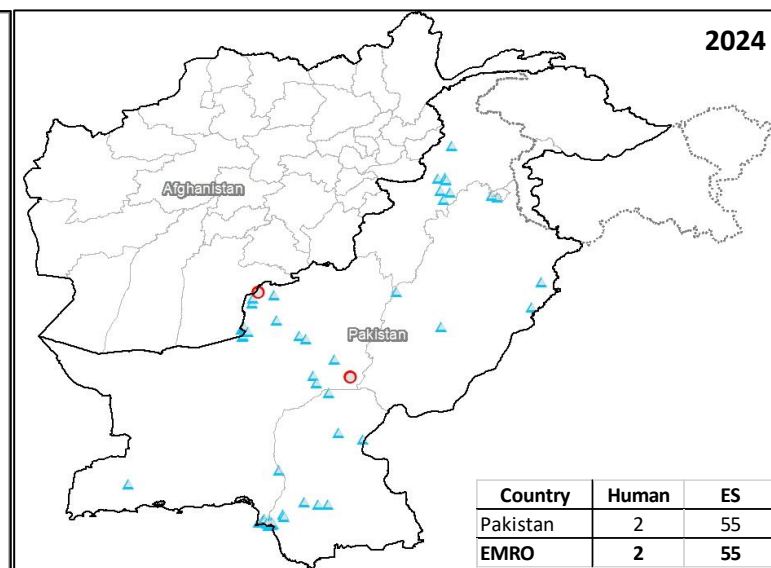
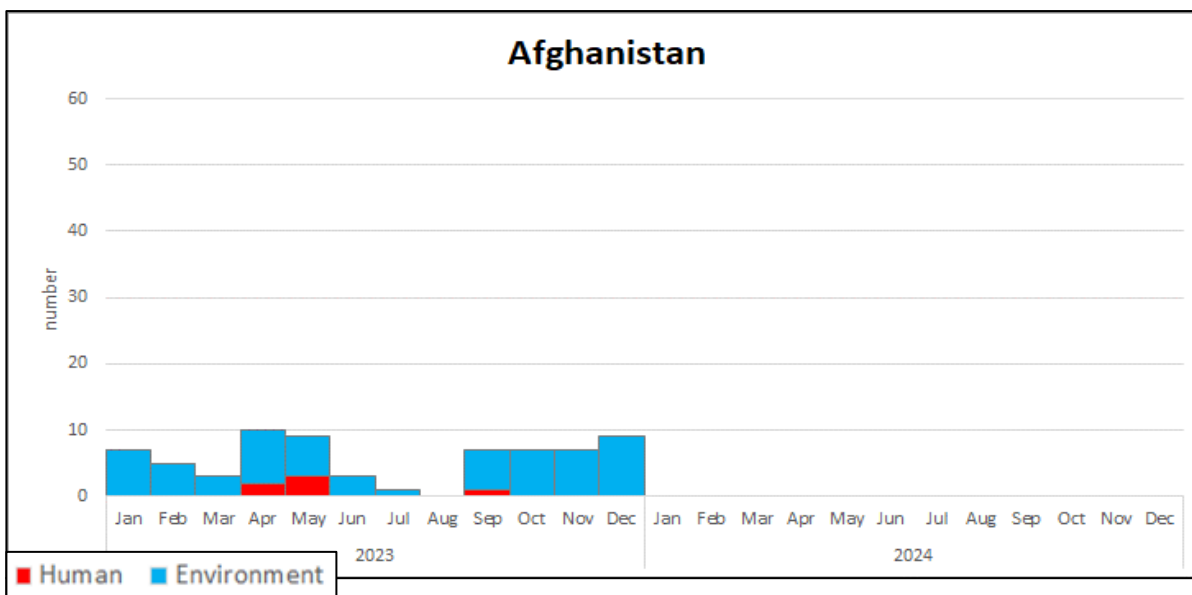
Stool adequacy



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

WPV1 Positive isolates from Afghanistan and Pakistan by source

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Virus isolation by country, last 12 months (17 Mar. 2023, to 17 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	48	179	14	9	7	11	268
Wild	48	178					226
cVDPV2			12	9	6	10	36
aVDPV2			2				2
VDPV1		1					1
VDPV2					1	2	3
Total	54	186	15	16	7	21	299

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	17 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	1	0	0	0				04-Sep-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	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	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				
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		
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				
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						
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	952	0	0	257	0	0	0	20.06	96.01	5854	6	0	5846	0	2	0	25.97	94.02	17-Mar-24
BAHRAIN	0	0	0	0	0	0	0	0.00		12	0	0	12	0	0	0	4.01	100.00	17-Mar-24
DIJIBOUTI	4	0	0	3	0	0	0	4.51	100.00	22	0	0	22	0	0	0	5.23	77.27	17-Mar-24
EGYPT	376	0	0	225	0	0	0	4.33	85.11	1714	0	0	1706	1	8	0	4.16	91.48	14-Mar-24
IRAN	202	0	0	172	0	0	0	4.57	95.54	1150	0	0	1150	0	0	0	5.48	97.13	16-Mar-24
IRAQ	157	0	0	118	0	0	0	4.25	89.81	820	0	0	820	0	0	0	4.66	94.88	16-Mar-24
JORDAN	10	0	0	6	0	0	0	0.96	90.00	116	0	0	116	0	0	0	2.68	93.10	14-Mar-24
KUWAIT	11	0	0	10	0	0	0	6.13	90.91	49	0	0	49	0	0	0	5.69	91.84	17-Mar-24
LEBANON	16	0	0	7	0	0	0	4.91	87.50	79	0	0	72	0	7	0	5.11	87.34	15-Mar-24
LIBYA	14	0	0	2	0	0	0	2.56	100.00	115	0	0	115	0	0	0	4.43	99.13	16-Mar-24
MOROCCO	34	0	0	0	0	0	0	1.46	47.06	154	0	0	82	0	57	5	1.31	61.04	13-Mar-24
OMAN	1	0	0	1	0	0	0	0.37	100.00	30	0	0	30	0	0	0	2.38	100.00	14-Mar-24
PAKISTAN	2894	2	0	2308	0	0	0	13.99	88.70	19730	6	0	19580	0	105	0	20.17	83.94	17-Mar-24
PALESTINE	5	0	0	0	0	0	0	1.11	100.00	28	0	0	26	0	1	0	1.35	96.43	17-Mar-24
QATAR	3	0	0	0	0	0	0	3.27	66.67	17	0	0	17	0	0	0	3.91	70.59	17-Mar-24
SAUDI ARABIA	39	0	0	0	0	0	0	2.35	92.31	301	0	0	301	0	0	0	3.60	95.68	10-Mar-24
SOMALIA	84	0	0	56	1	0	0	4.44	89.29	424	0	0	416	8	0	0	4.72	93.40	17-Mar-24
SUDAN	57	0	0	0	0	0	0	1.30	96.49	473	0	0	420	0	49	0	2.28	75.90	17-Mar-24
SYRIA	87	0	0	54	0	0	0	5.32	96.55	332	0	0	332	0	0	0	4.27	96.69	16-Mar-24
TUNISIA	8	0	0	2	0	0	0	1.29	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	0.64	100.00	67	0	0	67	0	0	0	4.54	88.06	13-Mar-24
YEMEN	258	0	0	95	1	0	0	7.67	93.02	1331	0	0	1263	9	47	39	8.33	88.05	16-Mar-24
EMR POL	5214	2	0	3316	2	0	0	8.50	90.30	32913	12	0	32537	18	276	44	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)

For further details on Contacts click: [detail of contact samples](#)

Laboratory investigation of AFP cases with paralysis onset in 2024

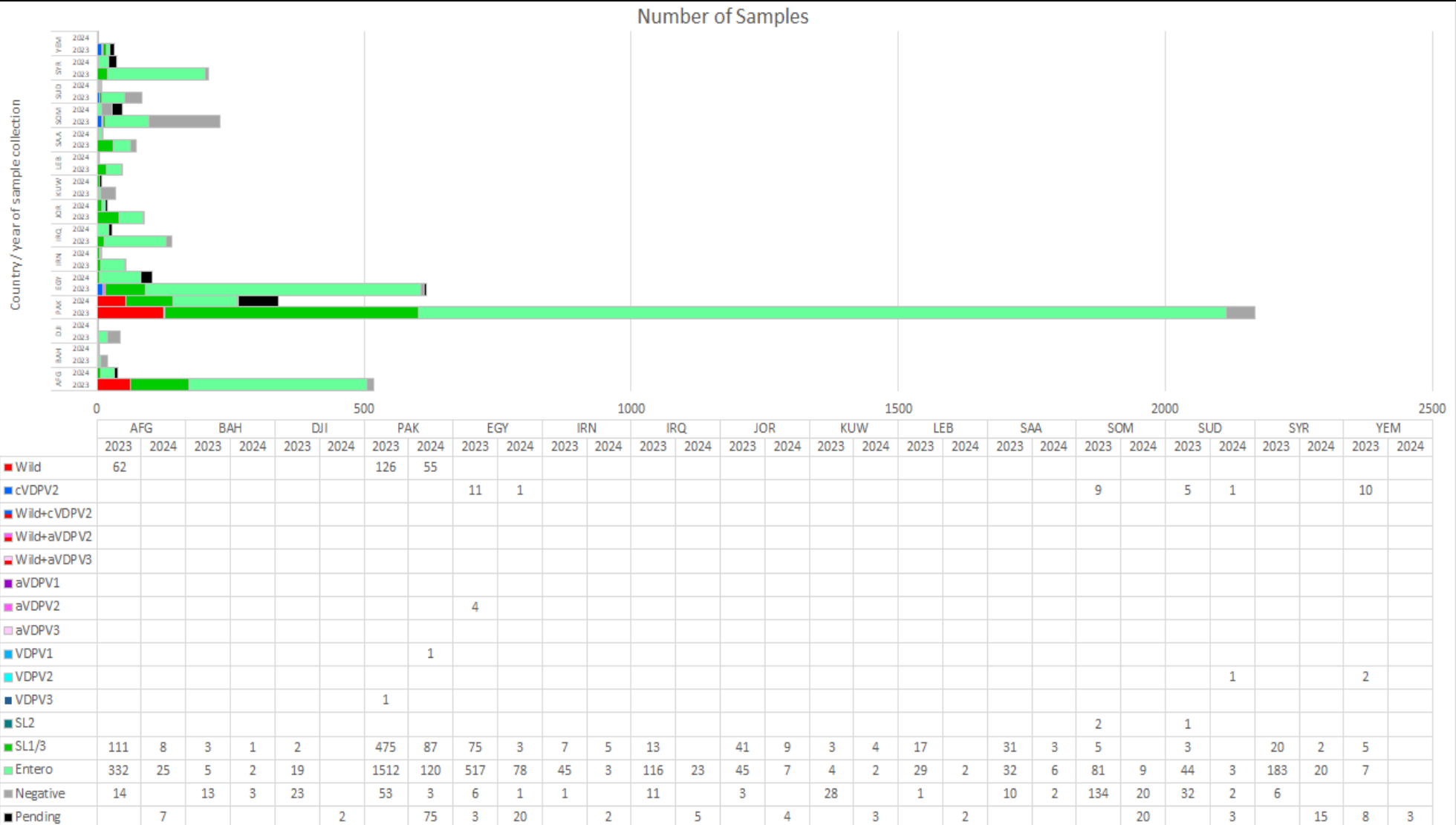
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Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators				Latest report Date	
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV 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	443	12	2	31	212		1		8					10							9%	100%	100%	100%	17-Mar-24
Bahrain	NPL Oman / CDC																									14-Mar-24
Djibouti	NPL Kenya / CDC	4				3	1															0%	33%		100%	17-Mar-24
Egypt	RRL Egypt	351	3		11	248	80	9		1					2							3%	98%	100%	100%	17-Mar-24
Iran	NPL Iran / CDC	199	1		2	173	7	16		1					1							1%	99%	100%	100%	9-Mar-24
Iraq	NPL Iraq, RRL Egypt	162	4		21	110	25	2		2					2							15%	100%	100%	99%	15-Mar-24
Jordan	NPL Jordan, RRL Egypt	7				7																0%	71%		100%	14-Mar-24
Kuwait	RRL Kuwait / RIVM	11	1		1	7	2													1		6%	78%		100%	14-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	26				21	5															0%	100%		100%	15-Mar-24
Oman	NPL Oman / CDC	1				1																0%	100%		100%	14-Mar-24
Pakistan	RRL Pakistan	2838	137	2	246	2138	246	23	2	76					98							7%	100%	100%	98%	17-Mar-24
Palestine & UNRWA		5				4	1															0%	25%		100%	17-Mar-24
Qatar	NPL Oman / CDC	2				2																0%	100%		100%	14-Mar-24
Saudi Arabia	NPL Saudi Arabia / CDC	33	1		1	25		6											1			3%	93%	0%	100%	29-Feb-24
Somalia	NPL Kenya / CDC	84	3		6	48	11	16		2				1		1						11%	2%		88%	17-Mar-24
Sudan	NPL Sudan / RRL Egypt	13			3	10																23%	100%		69%	14-Apr-23
Syria	NPL Syria / RRL Egypt	73			1	56	12	4														3%	100%			7-Mar-24
Tunisia	RRL Tunisia	8				8																0%	100%		100%	13-Mar-24
U.A.E	NPL Oman / CDC																					0%				14-Mar-24
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	106	3		20	76		7		1				1		1						18%	59%	100%	27%	16-Mar-24
Total EMR 2024		4375	165	4	343	3158	390	84	2	91				2		115				1	1	7%	97%	99%	97%	
Total EMR 2023		32119	1012	81	4502	26479		38	12	656		5	8	17		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

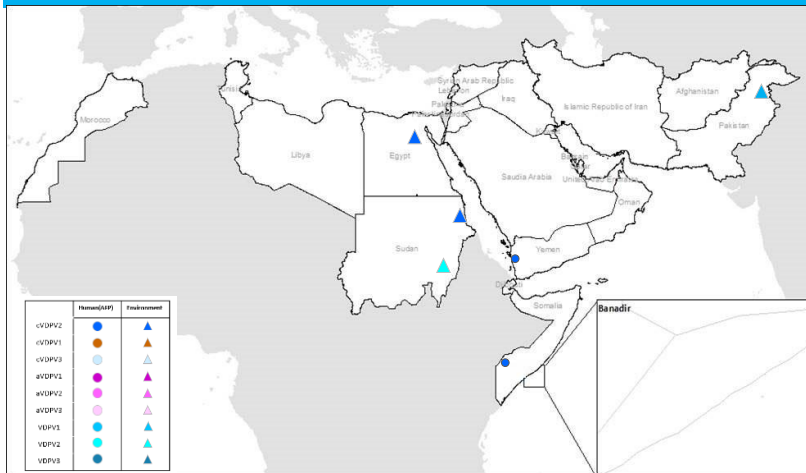
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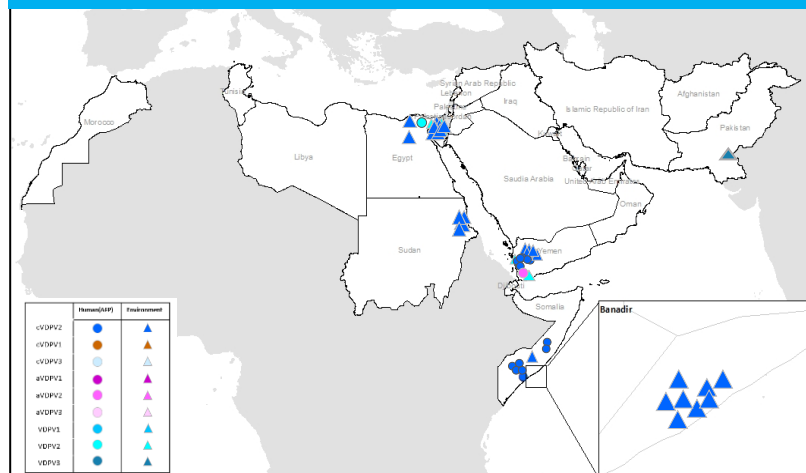
VDPVs isolations by Source and Country

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VDPV Isolates, EMR countries, 2024



VDPV Isolates, EMR countries, 2023



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						
	Libya	1						15-01-20																				
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							

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)