

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

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

- 8 cases of cVDPV2
 - 05 in Somalia
 - 03 in Yemen

- Zero case of cVDPV1



Sewage
water
sampling

2022

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

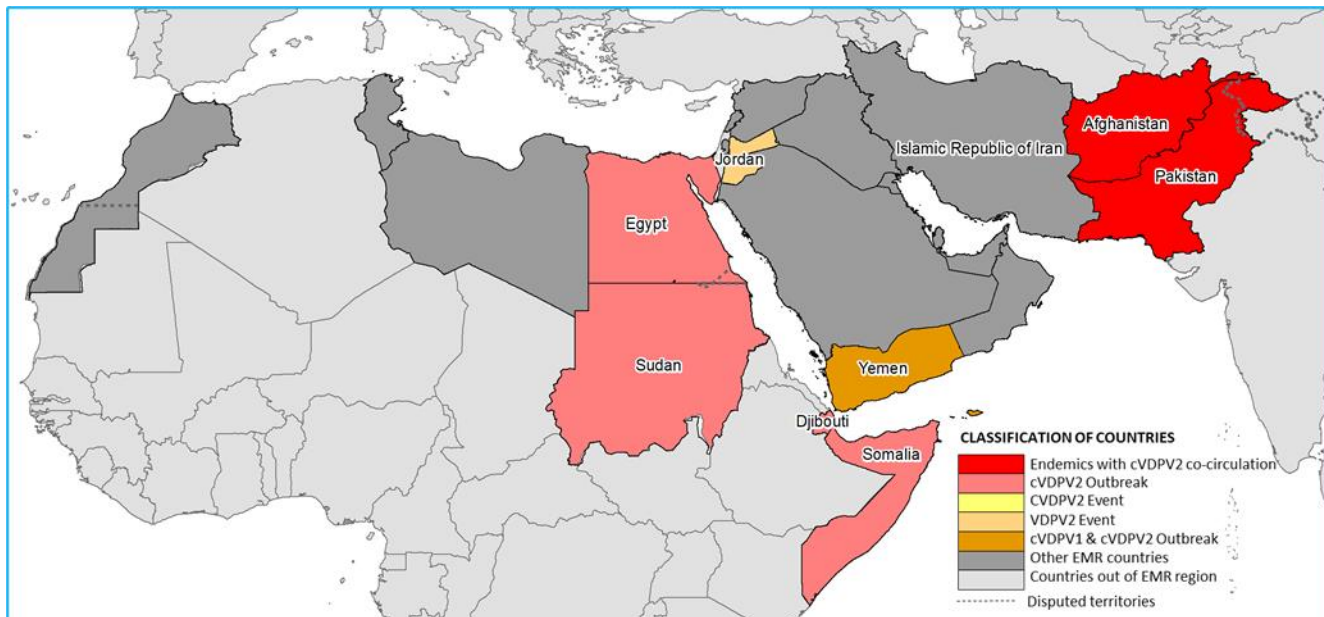
- 51 samples cVDPV2
 - 06 in Egypt
 - 12 in Djibouti
 - 06 in Somalia
 - 01 in Sudan
 - 26 in Yemen

2023

- 147 samples Wild Polio 1
 - 53 in Afghanistan
 - 94 in Pakistan

- 26 samples of cVDPV2
 - 09 in Somalia
 - 10 in Yemen
 - 07 in Egypt

Classification of EMR countries by type of poliovirus circulation



Highlights of the week

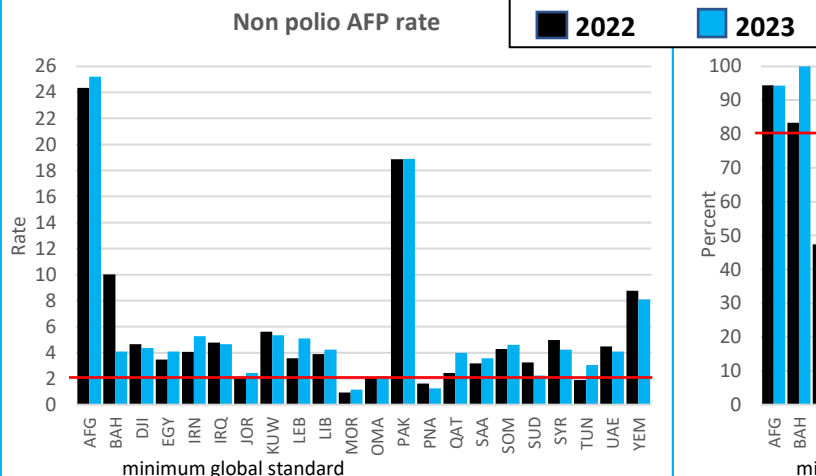
Wild Poliovirus

- No new WPV1 cases reported this week. The WPV1 cases count in 2023 to date is 12 (6 each from Afghanistan and Pakistan) and in 2022, the WPV1 cases count remains to be 22 cases (2 from Afghanistan and 20 from Pakistan).
- Four new WPV1 positive environmental samples reported this week from Pakistan. The new reported WPV1 ES from Pakistan are: 3 from Balochistan province (2 from Quetta and 1 from Chaman districts), and 1 from Sindh province (Khi-South Town) – with collection dates vary between 27th November and 4th December 2023. The positive environmental samples WPV1 count in 2023 to date is 147 (53 in Afghanistan and 94 in Pakistan), and in 2022, the count remains to be 59 (22 in Afghanistan and 37 in Pakistan).

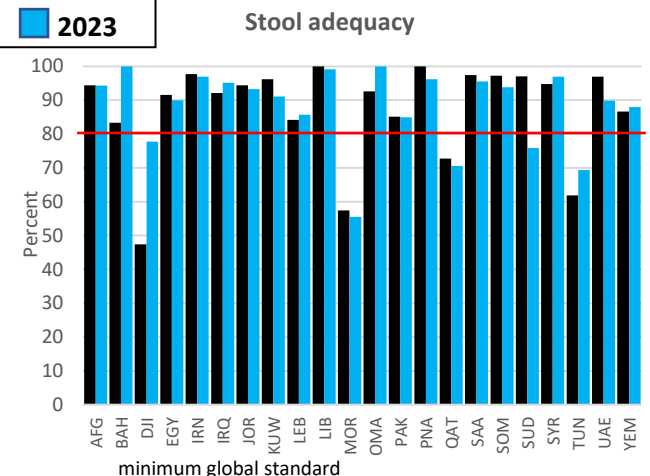
Vaccine derived poliovirus (VDPV)

- No new cVDPV cases reported this week. The count of cVDPV2 cases in 2023 to date is 8 (5 from Somalia and 3 from Yemen) and in 2022 the count remains to be 168 cases (1 from Sudan, 5 from Somalia and 162 from Yemen).
- Seven new cVDPV2 positive environmental samples reported this week from Yemen. The new cVDPV2 ES are: 5 from Sana'a City province (all from Bani-Ei Harith district) and 2 from Al Hudaidah province (both from Al Menia district) with collection dates varying between 20th March to 25th September 2023.
- The earlier reported VDPV2 ES from Egypt (Dahya site, North Sinai province, with collection date 13th November 2023) has been confirmed this week as cVDPV2 after confirmation of the sequencing results.
- The cVDPV2 positive environmental samples count in 2023 to date is 26 (10 from Yemen, 9 from Somalia and 7 from Egypt). In 2022, the count remains 51 (1 in Sudan, 6 in each of Egypt and Somalia, 12 in Djibouti and 26 in Yemen).
- A new VDPV2 positive environment sample was reported this week from Yemen. The new ES is from Al Mansourah district, Aden province, with collection date 27th May 2023.

Non polio AFP rate



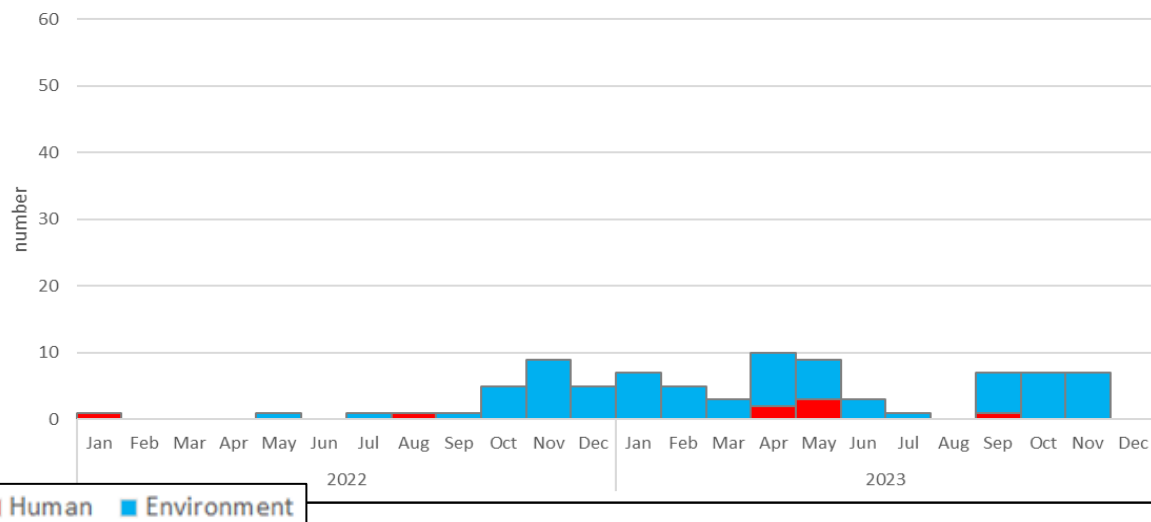
Stool adequacy



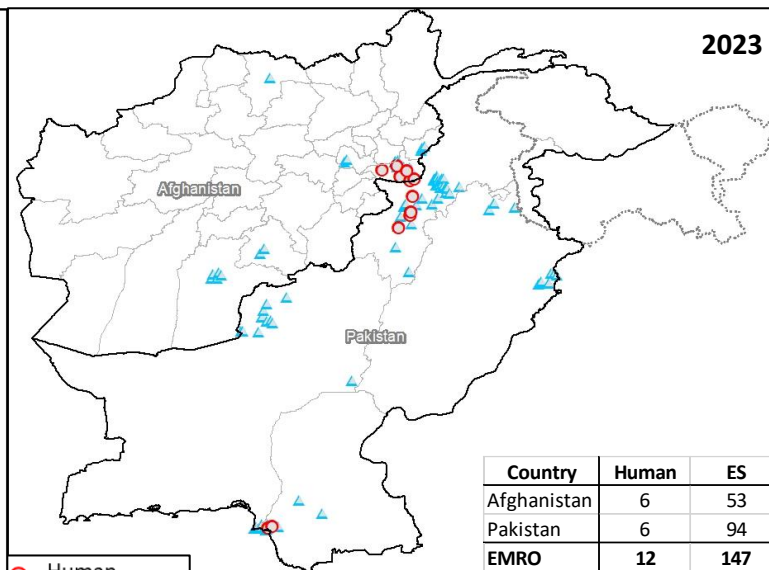
WPV1 Positive isolates from Afghanistan and Pakistan by source

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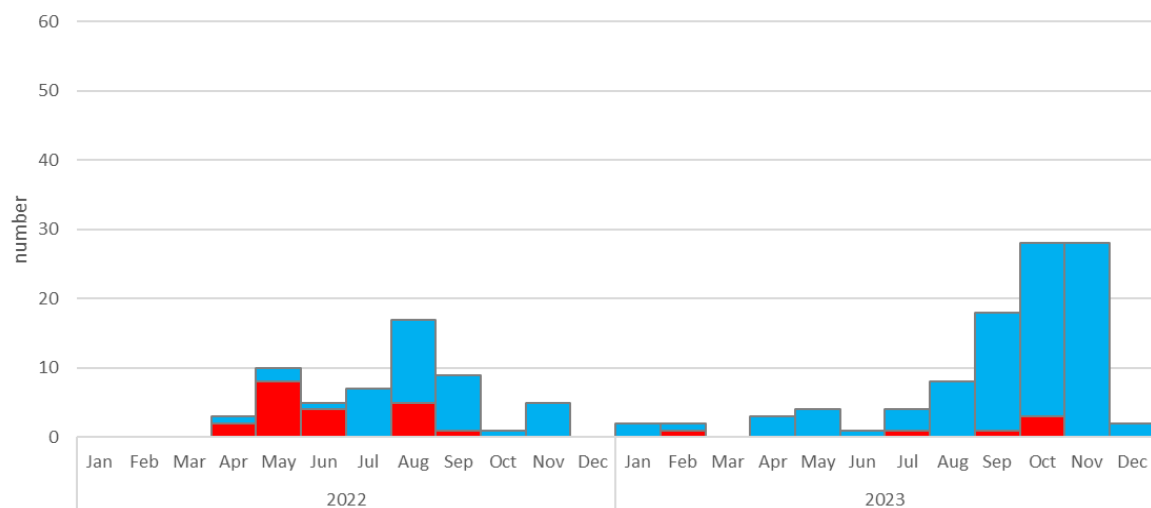
Afghanistan



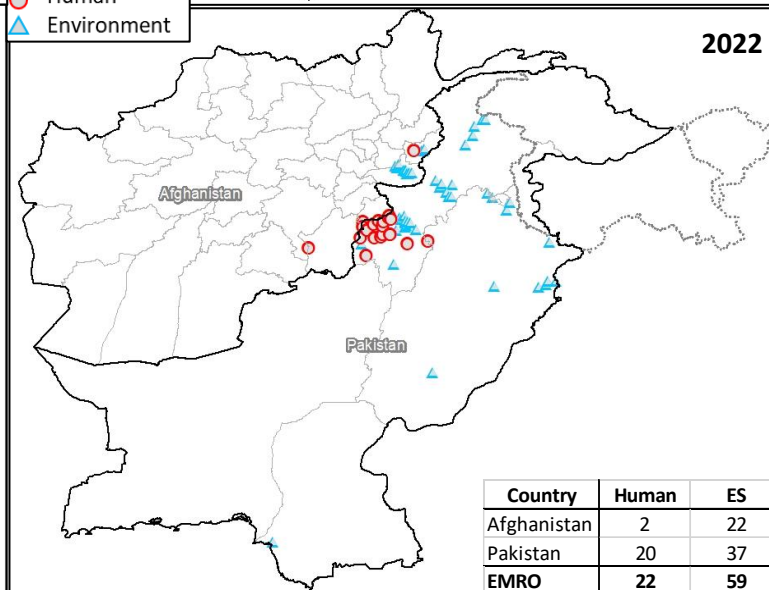
2023



Pakistan



2022



Virus isolation by country, last 12 months (Dec. 24, 2022, to Dec. 24, 2023)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
Human (AFP only)	6	6	1	5		4	22
Wild	6	6					12
cVDPV2				5		3	8
aVDPV2							
VDPV2			1			1	2
VDPV3							
Environment	53	95	11	9	1	13	182
Wild	53	94					147
cVDPV2			7	9		11	27
aVDPV2			4				4
VDPV2					1	2	3
VDPV3		1					1
Total	59	101	12	14	1	17	204

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	24 December		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2023												
			2022	2023	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Afghanistan	4	2	2	6	0	0	0	2	3	0	0	0	1	0			04-Sep-23
Bahrain	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	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			
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				
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						
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	1	20	20	6	0	1	0	0	0	0	1	0	1	3			24-Oct-23
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	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				
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	0	0				
EMR	5	22	22	12	0	1	0	2	3	0	1	0	2	3	0	0	24-Oct-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	5569	6	0	5330	0	11	0	25.20	94.33	5368	2	0	5365	1	0	0	24.34	94.41	24-Dec-23
BAHRAIN	12	0	0	10	0	1	0	4.09	100.00	30	0	0	30	0	0	0	10.02	83.33	24-Dec-23
DJIBOUTI	18	0	0	9	0	0	0	4.36	77.78	19	0	0	19	0	0	0	4.65	47.37	23-Dec-23
EGYPT	1656	0	0	1491	1	27	0	4.10	89.92	1394	0	0	1394	0	0	0	3.48	91.54	21-Dec-23
IRAN	1093	0	0	1046	0	0	0	5.28	96.98	824	0	0	824	0	0	0	4.06	97.69	23-Dec-23
IRAQ	804	0	0	743	0	14	0	4.66	95.15	835	0	0	835	0	0	0	4.78	92.10	21-Dec-23
JORDAN	104	0	0	99	0	0	0	2.44	93.27	89	0	0	89	0	0	0	2.14	94.38	10-Dec-23
KUWAIT	45	0	0	44	0	0	0	5.33	91.11	52	0	0	52	0	0	0	5.62	96.15	24-Dec-23
LEBANON	77	0	0	61	0	6	0	5.09	85.71	57	0	0	57	0	0	0	3.58	84.21	10-Dec-23
LIBYA	108	0	0	94	0	0	0	4.25	99.07	101	0	0	101	0	0	0	3.89	100.00	23-Dec-23
MOROCCO	135	0	0	42	0	56	10	1.17	55.56	94	0	0	92	0	2	0	0.93	57.45	18-Dec-23
OMAN	27	0	0	27	0	0	0	2.19	100.00	27	0	0	27	0	0	0	2.10	92.59	24-Dec-23
PAKISTAN	18114	6	0	17164	0	161	0	18.90	84.93	19033	20	1	19012	0	0	0	18.86	85.13	24-Dec-23
PALESTINE	26	0	0	20	0	0	0	1.27	96.15	33	0	0	32	1	0	0	1.64	100.00	24-Dec-23
QATAR	17	0	0	11	0	3	0	3.99	70.59	11	0	0	11	0	0	0	2.44	72.73	24-Dec-23
SAUDI ARABIA	292	0	0	240	0	0	0	3.56	95.55	274	0	0	274	0	0	0	3.18	97.45	24-Dec-23
SOMALIA	405	0	0	386	5	0	0	4.60	93.83	356	0	0	350	6	0	0	4.28	97.19	24-Dec-23
SUDAN	460	0	0	343	0	20	2	2.26	75.87	650	0	0	649	1	0	0	3.25	97.08	24-Dec-23
SYRIA	323	0	0	289	0	0	0	4.24	96.90	382	0	0	382	0	0	0	4.96	94.76	23-Dec-23
TUNISIA	88	0	0	83	0	0	0	3.05	69.32	55	0	0	55	0	0	0	1.91	61.82	22-Dec-23
U.A.E.	59	0	0	52	0	0	0	4.08	89.83	66	0	0	66	0	0	0	4.47	96.97	20-Dec-23
YEMEN	1266	0	0	1083	4	8	0	8.08	87.91	1377	0	1	1214	162	0	0	8.77	86.64	23-Dec-23
EMR POL	30698	12	0	28667	10	307	12	10.74	87.87	31127	22	2	30930	171	2	0	10.77	88.20	

* 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 2023

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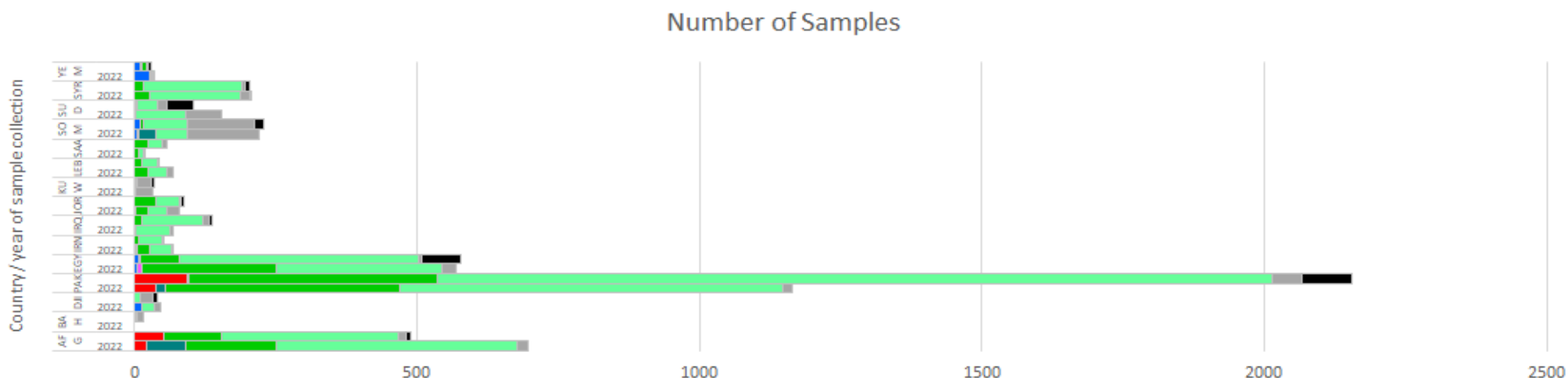
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators					Latest report Date
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant 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	5536	289	28	751	4278	141		5 *	196						236			2	2	3	12%	94%	100%	98%	24-Dec-23
Bahrain	NPL Oman / CDC	11			1	10																5%	100%		45%	24-Dec-23
Djibouti	NPL Kenya / CDC	18			2	11	2	3														15%	46%		77%	23-Dec-23
Egypt	RRL Egypt	1586	16		181	1331	55	4		8				1		11				1		10%	93%	100%	99%	21-Dec-23
Iran	NPL Iran / CDC	1093	7		8	1068	9	1		5						3						1%	100%	100%	99%	23-Dec-23
Iraq	NPL Iraq, RRL Egypt	804	6		57	706	22	13		5						2						7%	100%	100%	99%	21-Dec-23
Jordan	NPL Jordan, RRL Egypt	107			18	88	1															16%	95%		100%	24-Dec-23
Kuwait	RRL Kuwait / RIVM	48	1		8	36	1	2												1		13%	98%		100%	21-Dec-23
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	78			1	73	4															4%	100%			24-Dec-23
Libya	RRL Tunisia / RIVM	104	1		3	97	3			1												3%	98%	1	100%	20-Dec-23
Morocco	NPL Morocco, RRL Tunisia	124			3	113	7	1														3%	99%		94%	22-Dec-23
Oman	NPL Oman / CDC	29			1	26	2															8%	100%		100%	24-Dec-23
Pakistan	RRL Pakistan	17677	533	43	2677	13965	394	22	4 *	367						414						13%	93%	100%	96%	24-Dec-23
Palestine & UNRWA		26	1			23	1	1		1			1									0%	43%		100%	24-Dec-23
Qatar	NPL Oman / CDC	15	1			14										1						0%	100%	1	100%	24-Dec-23
Saudi Arabia	NPL Saudi Arabia / CDC	284	2		5	271		6		2						1						2%	98%	100%	100%	7-Dec-23
Somalia	NPL Kenya / CDC	404	14		62	314	6	8		4			2	5		2						16%	4%		95%	24-Dec-23
Sudan	NPL Sudan / RRL Egypt	443	10	1	73	266	75	17					3			2			2			19%	99%	100%	31%	14-Apr-23
Syria	NPL Syria / RRL Egypt	320	5	1	26	271	17															9%	100%			24-Dec-23
Tunisia	RRL Tunisia	91	1		3	86		1								1						3%	97%	1	98%	20-Dec-23
U.A.E	NPL Oman / CDC	51			3	48																6%	96%		27%	24-Dec-23
Yemen	NPLs Oman, Jordan & Kenya, RRL Egypt	1078	25	2	225	826				11			1	4		19						17%	21%	100%	21%	23-Dec-23
Total EMR 2023		29927	912	75	4108	23921	740	79	12 *	600		4	7	10		692			4	3	4	12%	90%	100%	94%	
Total EMR 2022		30461	1068	119	4831	24435		2	22 *	556	2		38	169 **		723		6	8	2	1	13%	93%	89%	92%	

* In 2023 – Two WPV1 cases are confirmed due to positive contacts while in 2022 - three WPV1 cases were 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. 1316, Week 51 (ending on 24/12/2023)

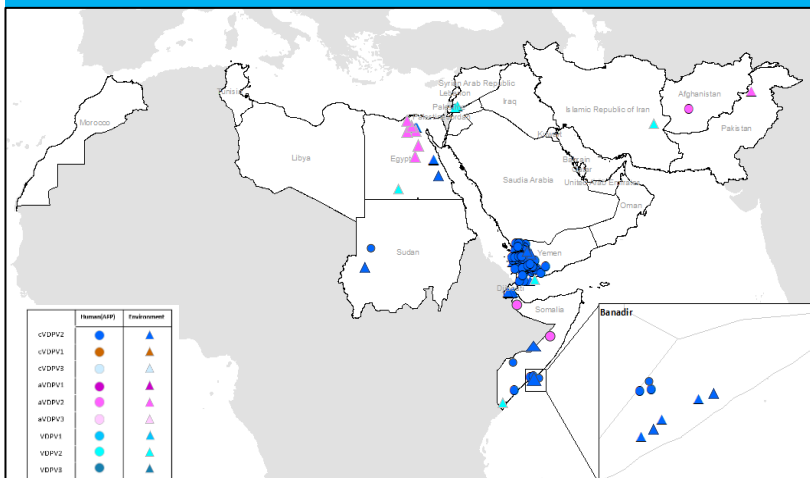


	AFG		BAH		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SAA		SOM		SUD		SYR		YEM	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Wild	22	53					37	94																						
cVDPV2					12				6	7													6	9	1				26	10
Wild+cVDPV2																														
Wild+aVDPV2																														
Wild+aVDPV3																														
aVDPV1																														
aVDPV2							1		7	4																				
aVDPV3																														
VDPV1																														
VDPV2											1				2								1			1			3	2
VDPV3							1																							
SL2	68				2		16				4											30	2		1			1		
SL1/3	162	102		2			415	442	239	68	23	7	3	13	22	38		2	24	14	7	24	2	5	2	2	28	17	2	9
Entero	424	313		3	20	11	679	1476	292	424	39	42	61	109	32	41	2	2	32	27	9	25	55	76	88	38	159	174	1	2
Negative	22	14		10	11	22	17	53	25	5	1	1	4	11	23	2	31	27	13	1	2	7	128	121	63	15	18	6		
Pending		8				9		90		71				4		6		3		1				16		47	3	8		6

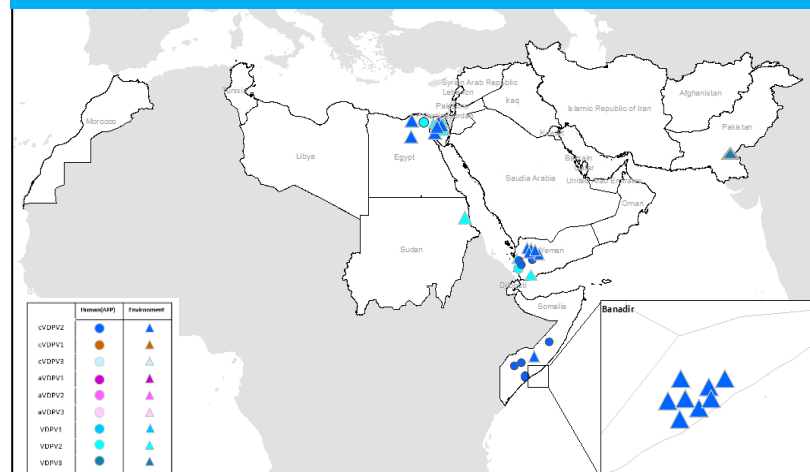
VDPVs isolations by Source and Country

EMR Polio Bulletin - Issue No. 1316 Week 51 (ending on 24/12/2023)

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						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	7		13-11-23							
	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	5	16-09-23	3	1	11		6	3	03-08-23	19	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		28-11-22			4					24-08-20
Yemen				66	162	3	28-08-23				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	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			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	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	17-07-23																						
	Iran																			1		04-02-22								
	Jordan																			2		25-05-22								
	Somalia					1		01-09-22												1		22-04-22								
	Sudan																				1	18-09-23								
	Yemen						1	09-05-23												3	2	27-05-23								
VDPV3	Pakistan																			1	14-02-23									

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)