

EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1293, Week 28 (ending on 16/07/2023)

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

- 6 cases of Wild Polio 1
 - 05 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

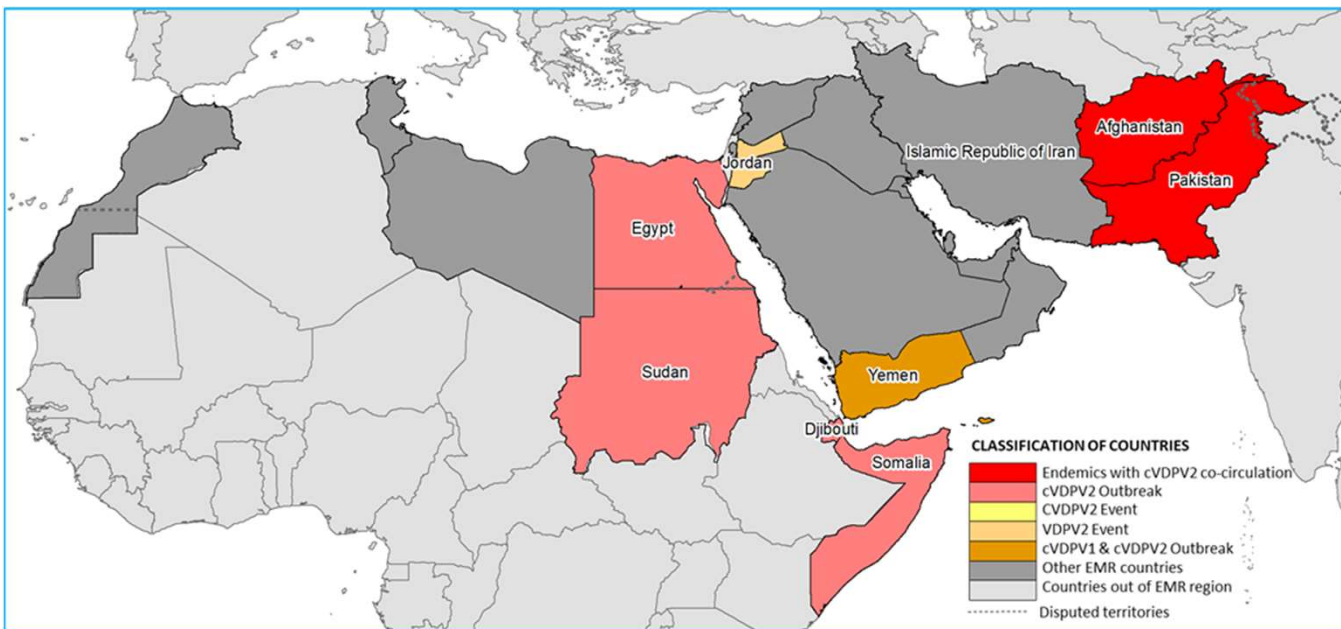
- 50 samples cVDPV2
 - 06 in Egypt
 - 12 in Djibouti
 - 06 in Somalia
 - 01 in Sudan
 - 25 in Yemen

2023

- 40 samples Wild Polio 1
 - 29 in Afghanistan
 - 11 in Pakistan

- 3 samples of cVDPV2
 - 03 in Somalia

Classification of EMR countries by type of poliovirus circulation



Highlights of the week

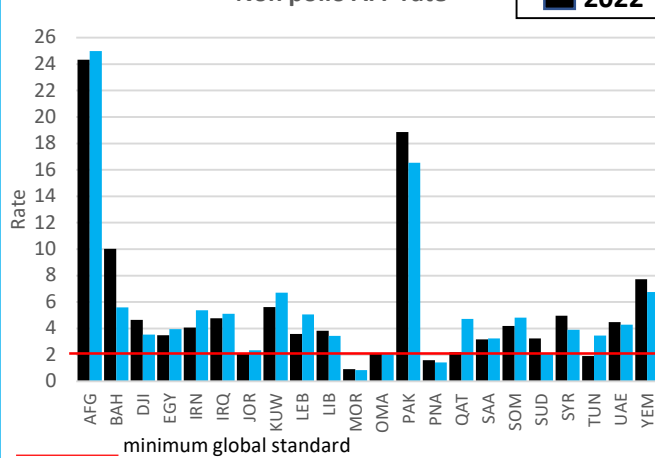
Wild Poliovirus

- No new WPV1 cases reported this week. The WPV1 cases count in 2023 till date is 6 (5 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).
- No new WPV1 positive environmental samples reported this week. The positive WPV1 ES count in 2023 is 40 (29 in Afghanistan and 11 in Pakistan), while in 2022, the count remains to be 59 (22 in Afghanistan and 37 in Pakistan).

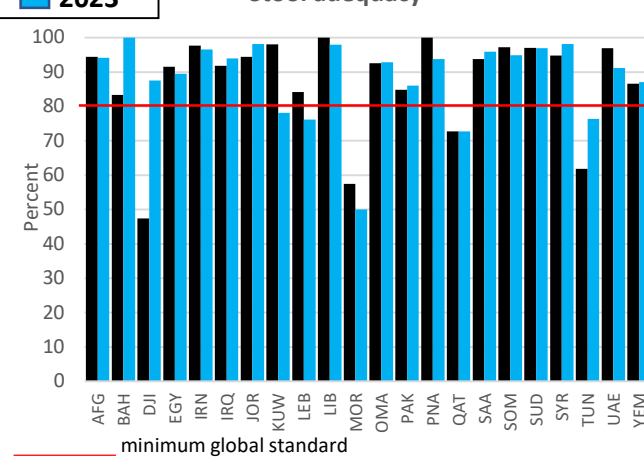
Circulating Vaccine derived poliovirus (cVDPV)

- No new cases reported this week. In 2023 the count of cVDPV2 cases remains 2 (both from Somalia) while the count in 2022 is 168 cases (1 from Sudan, 5 from Somalia and 162 from Yemen).
- Three new cVDPV2 isolates reported this week from Somalia. Two are from Banadir with the same collection date of 25th May 2023, and the other is from Bay Province with a date of collection of 7th May 2023. These are the only isolates from sewage sampling in 2023.
- In 2022 to date, the positive cVDPV2 ES count remains 50 (1 in Sudan, 6 in each of Egypt and Somalia, 12 in Djibouti and 25 in Yemen).

Non polio AFP rate



Stool adequacy



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

Contact us: WHO/EMRO – POL/SLD - Data

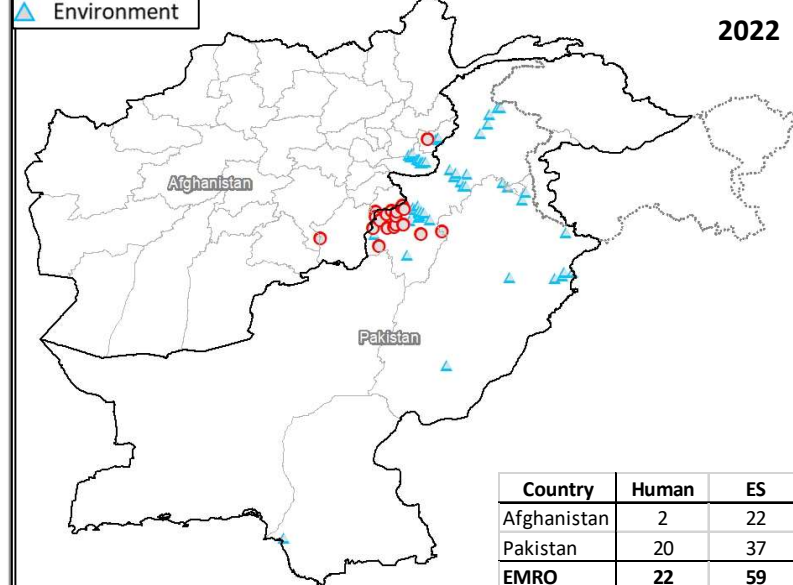
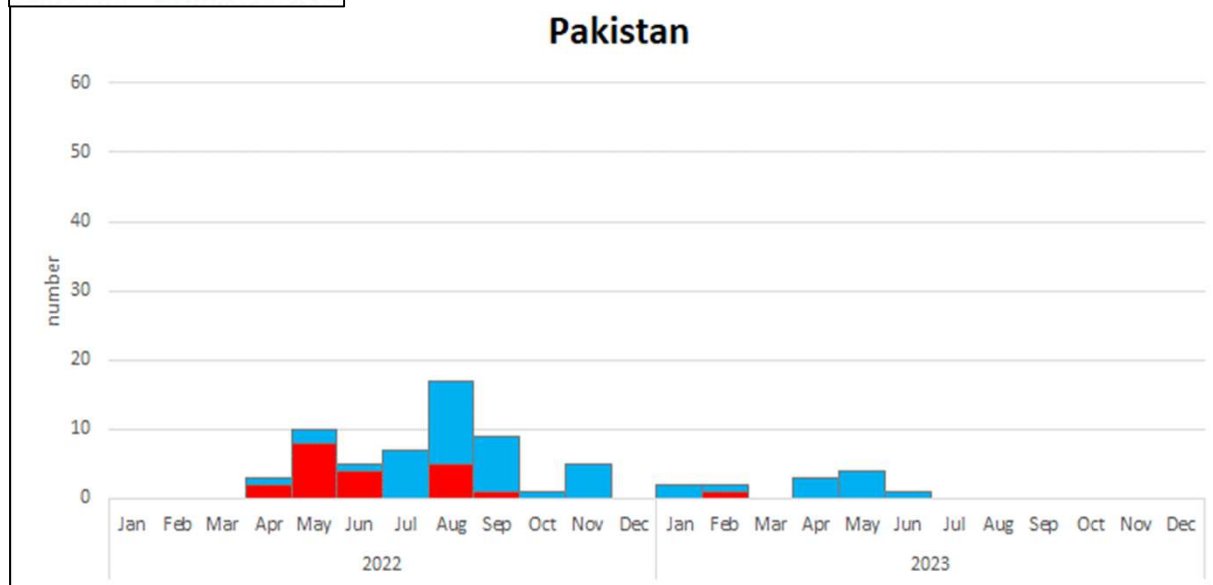
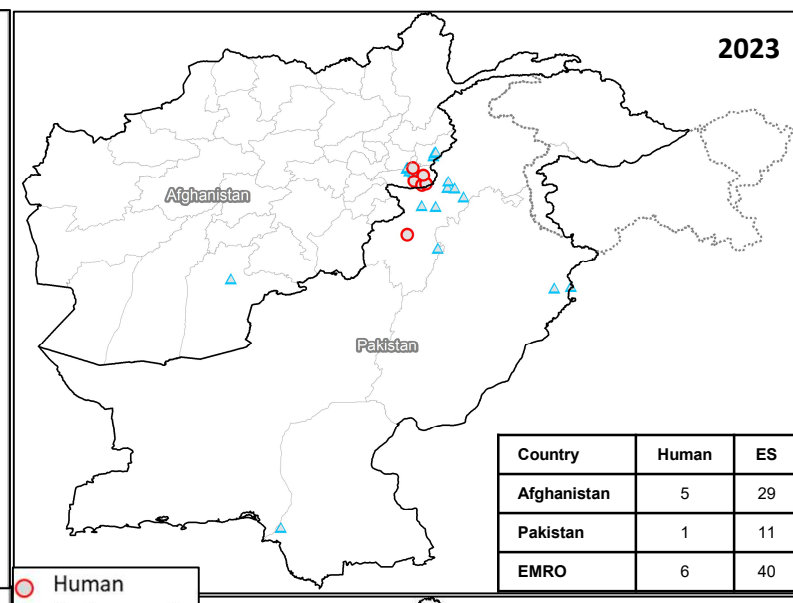
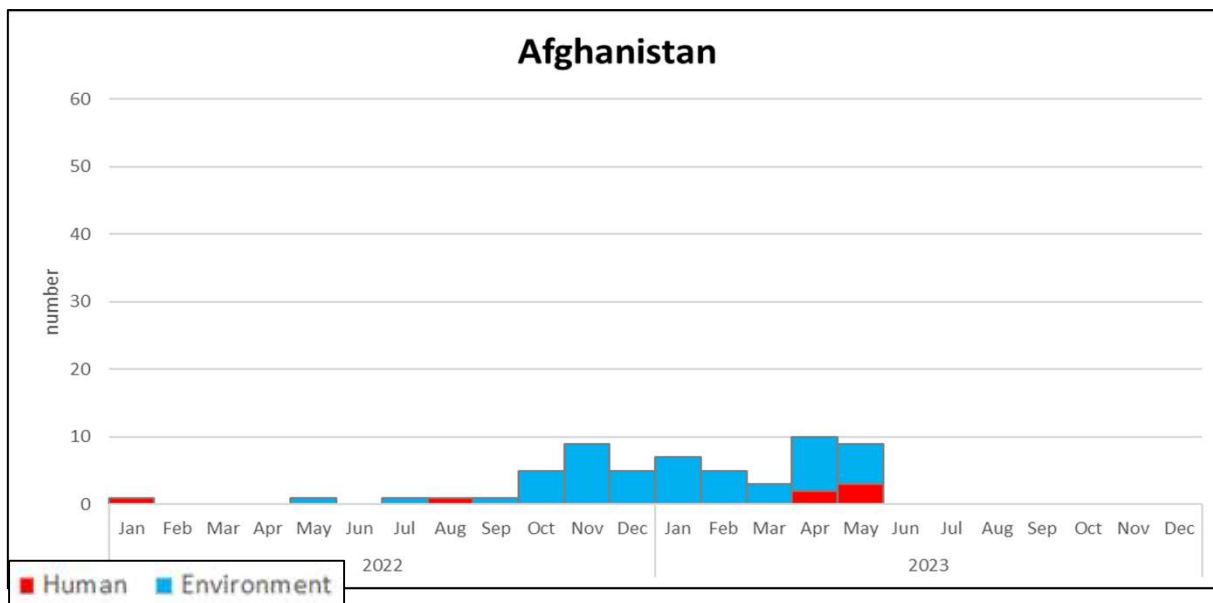
Email: emacojorpolisd@who.int

Web: <http://www.emro.who.int/polio/strategy-surveillance/em-polio-fax-issues.html>

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WPV1 Positive isolates from Afghanistan and Pakistan by source

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For further details on Wild Poliovirus click: [line-list of WPV isolates](#)

Virus isolation by country, last 12 months (July 16, 2022, to July 15, 2023)

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Source / Virus type	AFG	PAK	EGY	SOM	SUD	YEM	Total
Human (AFP only)	6	7		6	1	26	46
Wild	6	7					13
cVDPV2				4	1	26	31
aVDPV2				2			2
Environment	50	43	1	6	1	13	114
Wild	50	43					93
cVDPV2			1	6	1	13	21
aVDPV2							
Total	56	50	1	12	2	39	160

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 Type-1 cases by month of onset

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Country	Total year 2021	Total year 2022	16-Jul		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2022					2023							
			2022	2023	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Jul	
Afghanistan	4	2	1	5	1	0	0	0	0		0	0	2	3			18-May-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						
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			
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	0	0			0		
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	1	20	14	1	5	1	0	0		0	1	0	0	0			20-Feb-23
Palestine ****	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				
U.A.E	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					
EMR	5	22	15	6	6	1	0	0	0	0	1	0	2	3			18-May-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	3026	5	0	2677	0	13	4	24.98	94.2	5368	2	0	5365	1	0	0	24.33	94.4	16-Jul-23
Bahrain	9	0	0	5	0	1	0	5.60	100.0	30	0	0	30	0	0	0	10.02	83.3	16-Jul-23
Djibouti	8	0	0	5	0	0	0	3.54	87.5	19	0	0	19	0	0	0	4.65	47.4	16-Jul-23
Egypt	876	0	0	687	0	11	2	3.95	89.5	1394	0	0	1394	0	0	0	3.48	91.5	13-Jul-23
Iraq	483	0	0	441	0	10	0	5.11	94.0	835	0	0	835	0	0	0	4.78	91.9	14-Jul-23
Islamic Republic of Iran	610	0	0	577	0	0	0	5.39	96.6	824	0	0	824	0	0	0	4.06	97.7	15-Jul-23
Jordan	55	0	0	52	0	0	0	2.36	98.2	89	0	0	89	0	0	0	2.14	94.4	16-Jul-23
Kuwait	32	0	0	31	0	0	0	6.70	78.1	52	0	0	52	0	0	0	5.62	98.1	16-Jul-23
Lebanon	42	0	0	24	0	6	0	5.06	76.2	57	0	0	57	0	0	0	3.58	84.2	19-Jun-23
Libya	49	0	0	37	0	1	0	3.45	98.0	99	0	0	99	0	0	0	3.82	100.0	17-Jun-23
Morocco	54	0	0	18	0	25	3	0.84	50.0	94	0	0	88	0	5	1	0.91	57.4	12-Jun-23
Oman	14	0	0	14	0	0	0	2.07	92.9	27	0	0	27	0	0	0	2.10	92.6	09-Jul-23
Pakistan	8686	1	0	7676	0	116	0	16.53	86.1	19032	20	1	19010	0	1	3	18.85	84.9	16-Jul-23
Palestine	16	0	0	7	0	2	1	1.43	93.8	33	0	0	32	1	0	0	1.59	100.0	02-Jul-23
Qatar	11	0	0	3	0	4	0	4.71	72.7	11	0	0	11	0	0	0	2.22	72.7	11-Jul-23
Saudi Arabia	146	0	0	104	0	0	0	3.25	95.9	274	0	0	274	0	0	0	3.18	93.8	16-Jul-23
Somalia	234	0	0	202	2	0	0	4.81	94.9	356	0	0	349	7	0	0	4.20	97.2	16-Jul-23
Sudan	229	0	0	154	0	29	22	2.06	96.9	650	0	0	649	1	0	0	3.24	97.1	10-Jul-23
Syrian Arab Republic	162	0	0	154	0	0	0	3.89	98.1	382	0	0	382	0	0	0	4.96	94.8	15-Jul-23
Tunisia	55	0	0	50	0	0	0	3.46	76.4	55	0	0	55	0	0	0	1.91	61.8	14-Jul-23
United Arab Emirates	34	0	0	18	0	8	1	4.29	91.2	66	0	0	66	0	0	0	4.47	97.0	04-Jul-23
Yemen	579	0	0	365	0	18	5	6.76	87.0	1377	0	1	1214	162	0	0	7.73	86.6	15-Jul-23
EMR POL	15410	6	0	13301	2	244	38	9.83	89.0	31124	22	2	30921	172	6	4	10.71	88.0	

* 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

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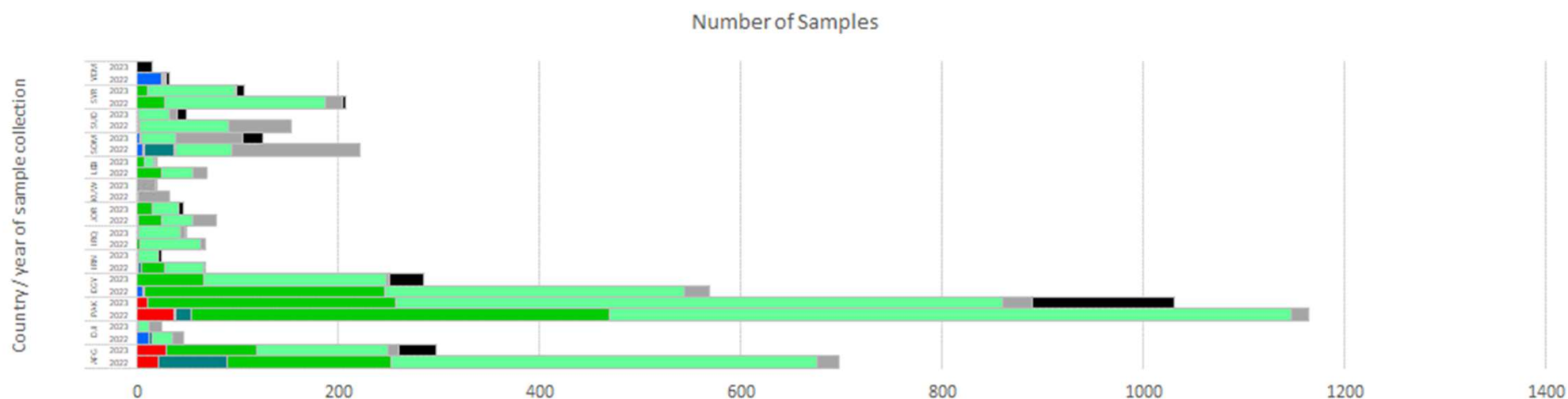
Country	Polio laboratories ITD Nucleotide Sequencing Sequencing performed by CDC and RIVM laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results												Indicators				Latest report Date	
			Referred for ITD		NPEV only	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**
			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	3004	153	15	336	2216	178	25	4	106						124			2	2		11%	91%	100%	98%	16-07-23
Bahrain	PNL Oman	8				7	1															0%	100%		14%	12-07-23
Djibouti	PNL Kenya	8			1	4		3														20%	100%		100%	14-07-23
Egypt***	RRL Egypt	835	7		63	678	40	48		5						5						7%	97%	100%	100%	13-07-23
Iran	PNL Iran	600	7		5	563	10	15		5						3						1%	100%	100%	99%	08-07-23
Iraq	PNL Iraq, RRL Egypt	486	3		33	415	27	8		2						2						8%	100%	100%	99%	13-07-23
Jordan	PNL Jordan, RRL Egypt	54			10	43	1															18%	92%		100%	16-07-23
Kuwait	RRL Kuwait	32			3	27	1	1														11%	100%		100%	16-07-23
Lebanon	NPL Syria, NPL Jordan, RRL Egypt	42				42																1%	100%			09-07-23
Libya	RRL Tunisia / RIVM	48	1		1	45		1		1												2%	96%	100%	100%	09-07-23
Morocco	PNL Morocco, RRL Tunisia	57			2	55																4%	98%		91%	14-07-23
Oman	PNL Oman / CDC	14			1	13																15%	100%		100%	12-07-23
Pakistan	RRL Pakistan	8500	232	15	925	6694	373	205	1	145						183						10%	90%	100%	96%	16-07-23
Palestine & UNRWA		16				13		3														0%	42%		100%	08-06-23
Qatar	NPL Oman / CDC	11	1			10										1						0%	100%	100%	100%	12-07-23
Saudi Arabia	PNL Saudi Arabia	127	1		4	113		9		1												3%	100%	100%	99%	07-07-23
Somalia	PNL Kenya	224	6		37	161	7	13		3			2	2		2						18%	4%		96%	14-07-23
Sudan	PNL Sudan, RRL Egypt	212	7		29	159		17					2			1						14%	99%	100%	54%	13-04-23
Syria	PNL Syria, RRL Egypt	159	1	1	7	145	5															5%	100%			09-07-23
Tunisia	RRL Tunisia	46	0		3	40	1						1			1						3%	98%	100%	99%	09-07-23
U.A.E	PNL Oman / CDC	34			1	25	8															4%	92%		19%	12-07-23
Yemen	PNLs Oman, Jordan, Kenya / RRL Egypt	420	11		63	297		49		6			1			9						14%	13%	100%	8%	12-07-23
Total EMR 2023		14973	432	31	1524	11801	651	398	5	274			6	2		331		2	2			9%	88%	100%	94%	
Total EMR 2022		30459	1066	119	4831	24430		0	22	556	2		38	169		723		6	8	2	1	13%	93%	89%	90%	

* 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

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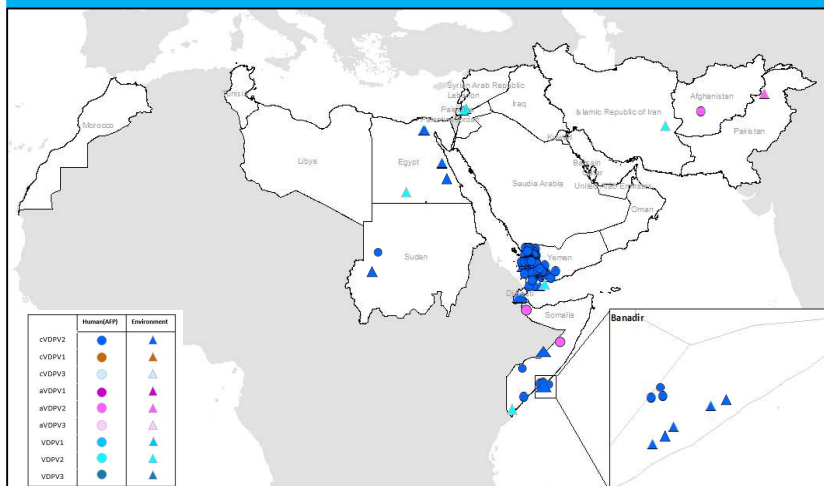
	AFG		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SOM		SUD		SYR		YEM	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
■ Wild	22	29			37	11																				
■ cVDPV2			12				6												6	3	1				25	
■ Wild+cVDPV2																										
■ Wild+aVDPV2																										
■ Wild+aVDPV3																										
■ aVDPV1																										
■ aVDPV2					1		1																			
■ aVDPV3																										
■ VDPV1																										
■ VDPV2									1				2						1						2	
■ SL2	68		3		16				4									30	2						1	
■ SL1/3	162	90		1	415	246	240	66	23	1	3	1	22	15			24	8	2		2	1	28	11	1	
■ Entero	424	131	21	11	677	603	297	182	39	20	61	43	32	26	2		32	9	55	33	88	32	159	87		
■ Negative	22	11	10	12	17	29	25	3	1	1	4	4	23	1	31	18	13	1	128	68	63	7	18	1		
■ Pending		37				142		34		3		2		4		2		1		20		10	3	8	4	15

For further details on Environmental Samples Results click: [Detail of environmental surveillance samples](#)

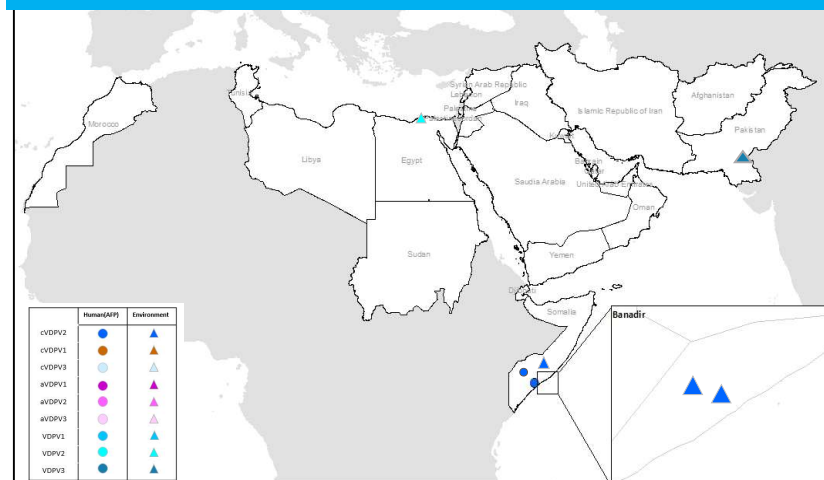
VDPVs isolations by Source and Country

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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			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	3	25-05-23		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	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																					
aVDPV2	Yemen				1			20-07-21																					
	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	67	1		12-01-22								
	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								
aVDPV3	Yemen				3			01-11-21			1			09-12-21															
	Afghanistan		1					23-06-20																					
	Egypt																	2			30-09-20								
	Pakistan																		1		05-04-21								
VDPV1	Libya		1				15-01-20																						
VDPV1	Egypt																	1			11-07-21								
VDPV2	Egypt						1	27-02-23																					
	Iran																		1		04-02-22								
	Jordan																		2		25-05-22								
	Somalia					1		01-09-22												1		22-04-23							
VDPV3	Yemen																		3		24-04-22								
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)