

Highlights



Children
Paralyzed
by polio



Sewage
water
sampling

2021

- 05 cases of Wild Polio 1
 - 04 in Afghanistan
 - 01 in Pakistan

- 118 cases of cVDPV2
 - 43 in Afghanistan
 - 08 in Pakistan
 - 01 in Somalia
 - 66 in Yemen

- 03 cVDPV1 cases
 - All in Yemen

2022

- 66 samples Wild Polio 1
 - 01 in Afghanistan
 - 65 in Pakistan

- 104 samples cVDPV2
 - 40 in Afghanistan
 - 35 in Pakistan
 - 12 in Egypt
 - 01 in Iran
 - 01 in Somalia
 - 05 in Djibouti
 - 10 in Yemen

2022

- 15 cases of Wild Polio 1
 - 01 in Afghanistan
 - 14 in Pakistan

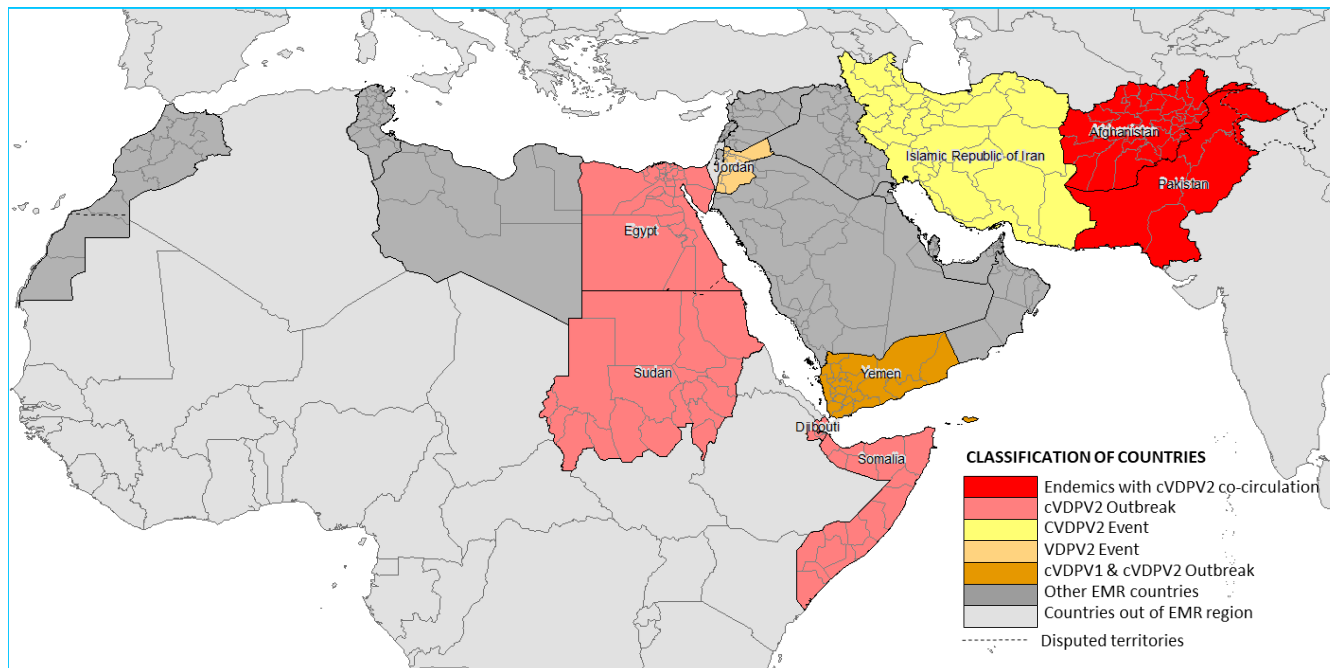
- 84 cases of cVDPV2
 - 02 in Somalia
 - 82 in Yemen

- Zero case of cVDPV1
(No cVDPV1 for the last 16 months)

2022

- 13 samples Wild Polio 1
 - 02 in Afghanistan
 - 11 in Pakistan

- 18 samples of cVDPV2
 - 05 in Egypt
 - 11 in Djibouti
 - 02 Somalia

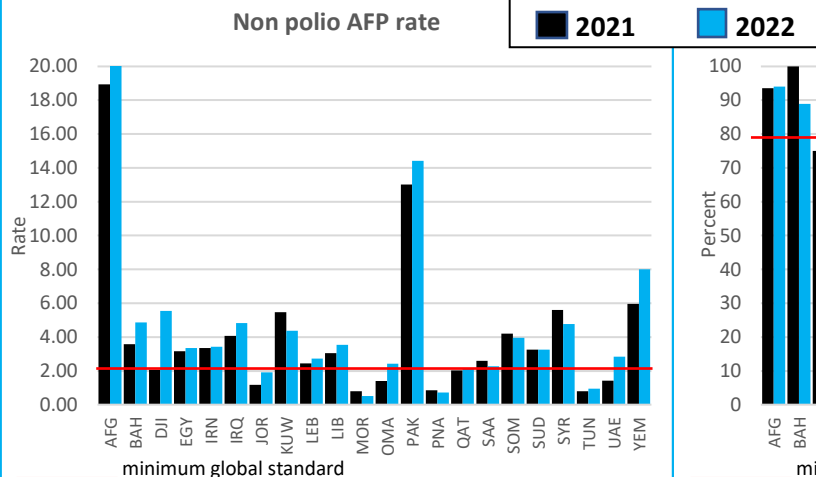


Highlights of the week

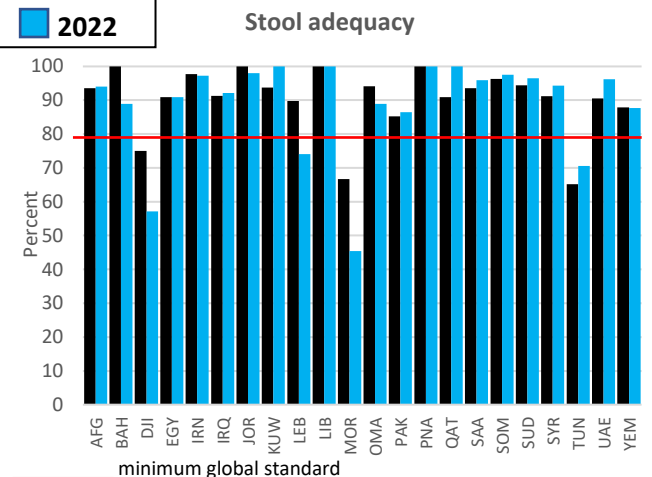
- No new wild poliovirus isolates from human or environment were reported this week.
- Yemen:** Two new cVDPV2 cases identified by positive contacts were reported this week. The first case from Khanfar district, Abyan province, with date of onset 19th February 2022 and the second case from AIMakhadir district, Ibb province, with date of onset 16th April 2022.
- Algeria:** Three cVDPV2 positive environmental samples were reported from Tamanghasset province in Algeria in addition to one community child. These isolates belong to NIE-ZAS-1 emergence which was earlier isolated in Egypt.
- Israel:** One new VDPV2 positive environmental sample was reported.

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

Non polio AFP rate

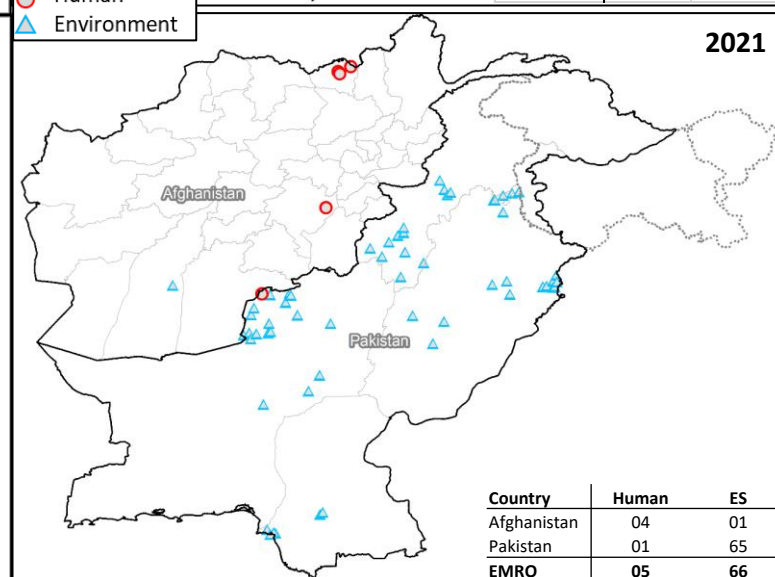
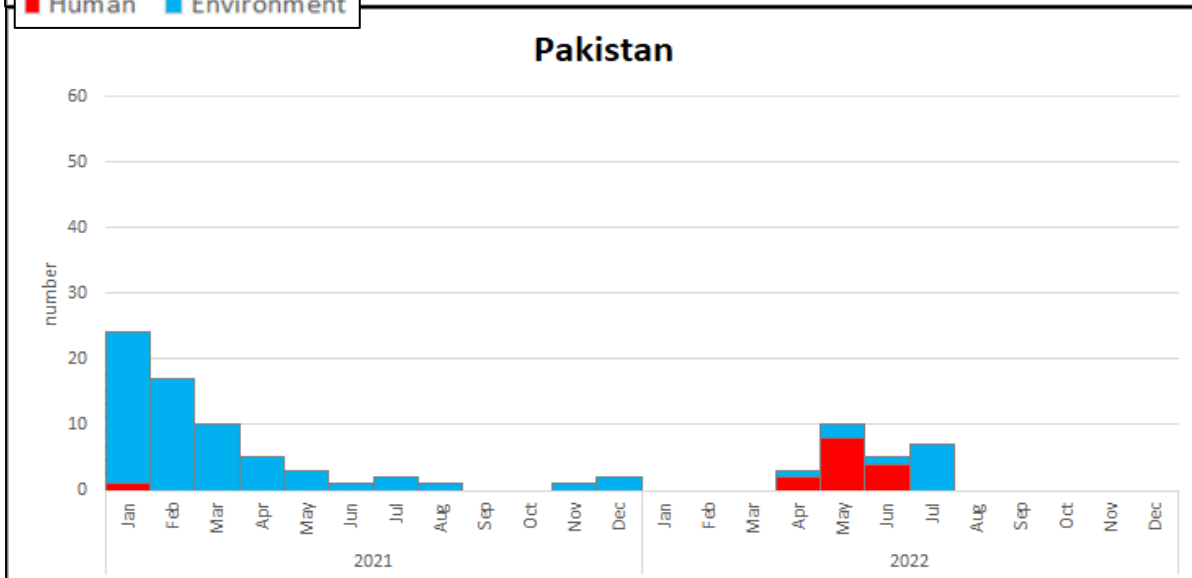
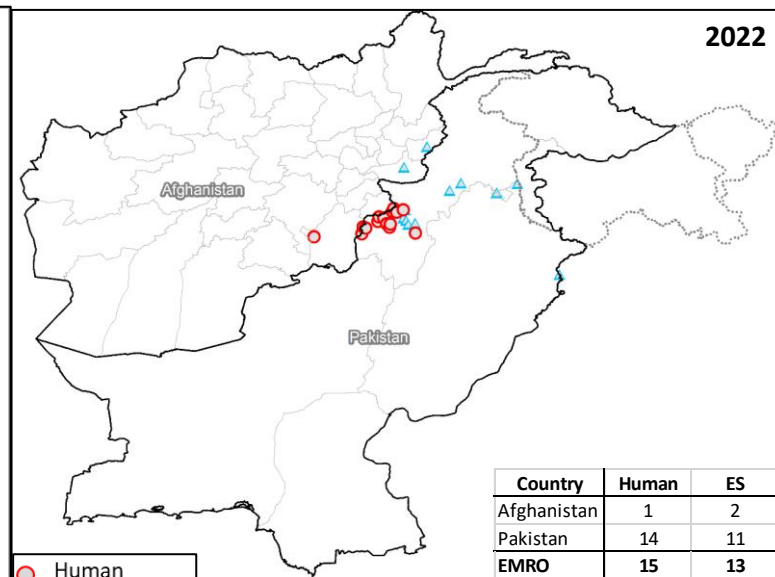
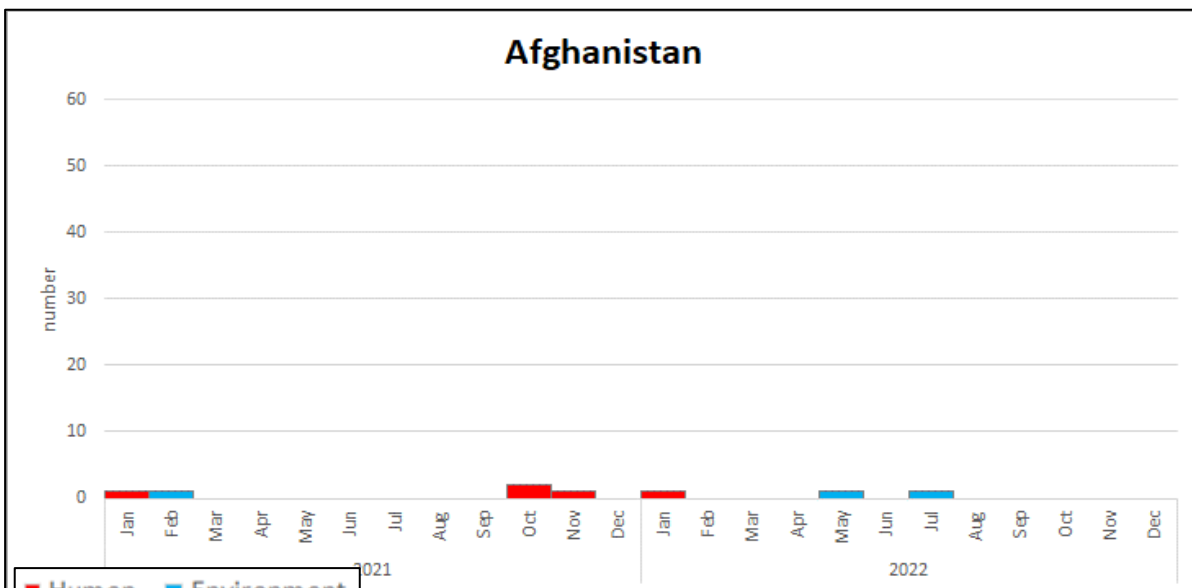


Stool adequacy



WPV1 Positive isolates from Afghanistan and Pakistan by source

EMR Polio Bulletin - Issue No. 1245, Week 32 (ending on 14/08/2022)



Virus isolation by country, last 12 months (Aug 14, 2021 to Aug 14, 2022)

EMR Polio Bulletin - Issue No. 1245, Week 32 (ending on 14/08/2022)

Source / Virus type	AFG	DJI	PAK	EGY	IRN	JOR	SOM	YEM	Total
Human (AFP only)	4		15				2	150	171
Wild	4		14						18
cVDPV2							2	147	149
aVDPV2			1					3	4
VDPV2									
Environment	2	16	23	22	2	3	3	10	81
Wild	2		14						16
cVDPV2		16		6			2	10	34
aVDPV2			9		1				10
VDPV2				16	1	3	1		21
Total	6	16	38	22	2	3	5	160	252

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

EMR Polio Bulletin - Issue No. 1245, Week 32 (ending on 14/08/2022)

Country	Total year 2020	Total year 2021	7 Aug.		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2021						2022						
			2021	2022	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
Afghanistan	56	4	1	1	0	2	1	0	1	0	0	0	0	0			14-Jan-22
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			
Egypt	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	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				
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					
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	84	1	1	14	0	0	0	0	0	0	0	2	8	4			30-Jun-22
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		
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			
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								
EMR	140	5	2	15	0	2	1	0	1	0	0	2	8	4	0	0	30-Jun-22

**** UNRWA cases are included with those of country of residence

Investigation of AFP cases with paralysis onset in 2021 & 2022

EMR Polio Bulletin - Issue No. 1245, Week 32 (ending on 14/08/2022)

COUNTRY	2021									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	4088	4	1	4038	45	0	0	18.92	93.52	3175	1	0	2913	1	28	0	23.73	94.05	14-Aug-22
BAHRAIN	11	0	0	11	0	0	0	3.58	100.00	9	0	0	5	0	1	0	4.86	88.89	14-Aug-22
DIJIBOUTI	8	0	0	8	0	0	0	2.06	75.00	14	0	0	13	0	0	0	5.54	57.14	14-Aug-22
EGYPT	1251	0	0	1250	1	0	0	3.17	90.89	821	0	0	736	0	14	1	3.36	90.86	11-Aug-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	430	0	0	399	0	0	0	3.43	97.21	13-Aug-22
IRAQ	709	0	0	709	0	0	0	4.08	91.26	521	0	0	436	0	32	0	4.84	92.13	13-Aug-22
JORDAN	47	0	0	47	0	0	0	1.19	100.00	49	0	0	46	0	0	0	1.91	97.96	11-Aug-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	25	0	0	23	0	0	0	4.37	100.00	7-Aug-22
LEBANON	39	0	0	39	0	0	0	2.45	89.74	27	0	0	17	0	4	0	2.74	74.07	13-Aug-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	57	0	0	44	0	0	0	3.55	100.00	13-Aug-22
MOROCCO	78	0	0	78	0	0	0	0.80	66.67	33	0	0	13	0	10	0	0.52	45.45	15-Jul-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	18	0	0	18	0	0	0	2.42	88.89	14-Aug-22
PAKISTAN	13118	1	4	13095	18	0	0	13.01	85.19	9008	14	0	8065	0	199	0	14.41	86.47	13-Aug-22
PALESTINE	16	0	0	16	0	0	0	0.85	100.00	9	0	0	6	0	0	0	0.72	100.00	7-Aug-22
QATAR	11	0	0	11	0	0	0	2.03	90.91	6	0	0	5	0	0	0	2.15	100.00	7-Aug-22
SAUDI ARABIA	217	0	0	217	0	0	0	2.59	93.55	122	0	0	86	0	0	0	2.28	95.90	14-Aug-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	203	0	0	182	2	1	1	3.96	97.54	14-Aug-22
SUDAN	636	0	0	636	0	0	0	3.26	94.34	392	0	0	327	0	11	1	3.25	96.43	11-Aug-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	227	0	0	201	0	0	0	4.77	94.27	13-Aug-22
TUNISIA	23	0	0	23	0	0	0	0.81	65.22	17	0	0	11	0	1	0	0.95	70.59	5-Aug-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	26	0	0	0	0	12	0	2.85	96.15	10-Aug-22
YEMEN	921	0	0	849	72	0	0	5.96	87.84	764	0	0	405	82	55	31	8.00	87.70	13-Aug-22
EMR POL	22799	5	5	22651	138	0	0	7.97	88.33	15953	15	0	13951	85	368	34	8.98	89.29	

* 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 2022

EMR Polio Bulletin - Issue No. 1245, Week 32 (ending on 14/08/2022)

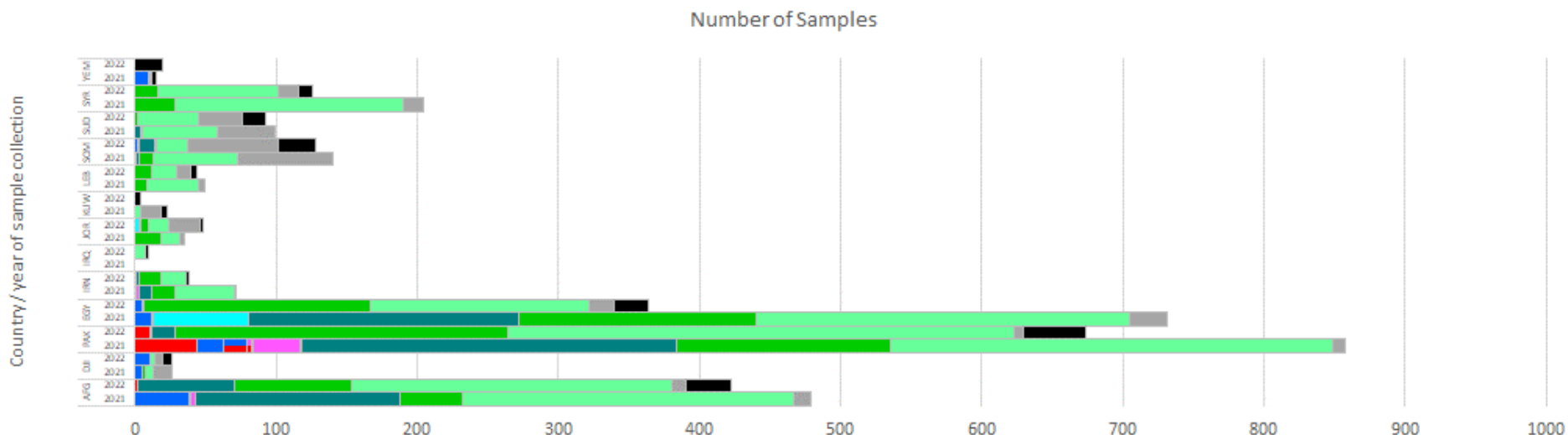
Country	Polio laboratories	AFP cases with specimens	Preliminary virus isolation results of AFP cases						Poliovirus intratypic differentiation results													Indicators				Latest report Date
	ITD / Nucleotide Sequencing		Referred for ITD		NPEV only	Negative	Pending		Type 1			Type 2			Type 3			Discordant 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	3145	191	30	528	2214	152	2	1	141			8		162					1	15%	95%	100%	99%	14-Aug-22	
Bahrain	NPL Oman / CDC	9				9															0%	100%		100%	11-Aug-22	
Djibouti	NPL Kenya / CDC	14	2		4	7		1		2			2		2						31%	77%		69%	14-Aug-22	
Egypt***	RRL Egypt	812	17	4	108	634	46	3		8					12			3	1		12%	98%	100%	99%	11-Aug-22	
Iran	NPL Iran / CDC	437	7		4	409	17			2					6						1%	100%	100%	99%	14-Aug-22	
Iraq	NPL Iraq, RRL Egypt	523	1		47	452	21	2							2						10%	100%	50%	99%	11-Aug-22	
Jordan	NPL Jordan, RRL Egypt	48	2		11	29	2	4							2						29%	100%	1	100%	11-Aug-22	
Kuwait	RRL Kuwait / RIVM	26	1			24		1		1					1		1	1			3%	100%	1	100%	14-Aug-22	
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	23	1			17	5														0%	100%			07-Aug-22	
Libya	RRL Tunisia / RIVM	52				47	5														0%	100%		100%	05-Aug-22	
Morocco	NPL Morocco, RRL Tunisia	35			3	28	4														8%	100%		94%	13-Aug-22	
Oman	NPL Oman / CDC	21			3	17	1														15%	80%		100%	11-Aug-22	
Pakistan	RRL Pakistan	8856	299	40	1535	6519	434	19	12 *	161			1		258						14%	96%	100%	96%	14-Aug-22	
Palestine & UNRWA		9				7	2														0%	14%		86%	07-Aug-22	
Qatar	NPL Oman / CDC	6	1			5				1											0%	83%	0	100%	11-Aug-22	
Saudi Arabia	NPL Saudi Arabia / CDC	91	1		3	82		5							1						4%	86%	0%	97%	31-Jul-22	
Somalia	NPL Kenya / CDC	203	7		39	141	5	15		2			7	2							21%	8%		99%	14-Aug-22	
Sudan	NPL Sudan / RRL Egypt	392	8		98	260	26										1				27%	65%	100%	22%	13-Aug-22	
Syria	NPL Syria / RRL Egypt	209	2		14	180	13														6%	99%			07-Aug-22	
Tunisia	RRL Tunisia	18				18															0%	100%		94%	05-Aug-22	
U.A.E	NPL Oman / CDC	22				22															0%	100%		68%	11-Aug-22	
Yemen	NPL Oman, NPL Kenya, RRL Egypt	569	134	2	66	330	38			5			2	80 **		11		34	1	1	12	13%	41%	20%	0%	13-Aug-22
Total EMR 2022		15520	674	76	2463	11451	771	52	15	323			20	84		457		35	6	2	13	13%	92%	86%	94%	
Total EMR 2021		22113	1183	128	3874	16919		5	5	478	7		363	107		599	1	11	7	2	2	14%	97%	97%	93%	

* Two WPV1 cases are confirmed due to positive contacts (Index cases were negative for WPV1)

** Two cVDPV2 cases are identified by positive contacts (Index cases were negative for cVDPV2)

Environmental Surveillance Isolation by Classification

EMR Polio Bulletin - Issue No. 1245, Week 32 (ending on 14/08/2022)

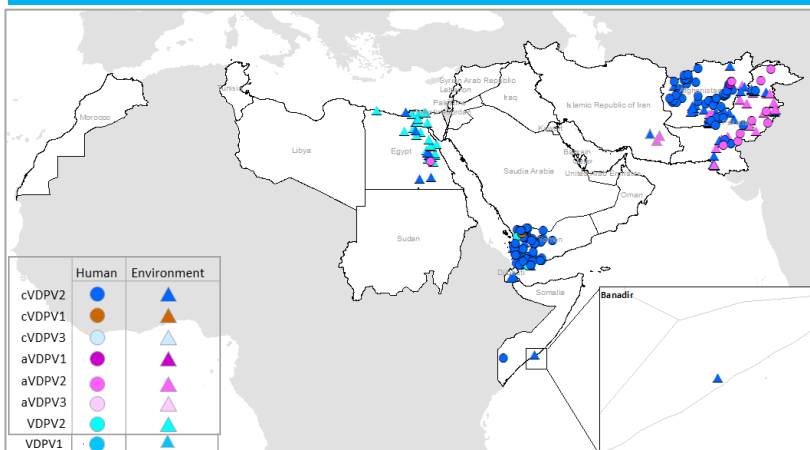


	AFG		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SOM		SUD		SYR		YEM	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
■ Wild		2			44	11																				
■ cVDPV2	39		5	11	19		12	5	1										1	2					10	
■ Wild+cVDPV2	1				16																					
■ Wild+aVDPV2					4																					
■ Wild+aVDPV3					1																					
■ aVDPV1																										
■ aVDPV2	3				33	1			2																	
■ aVDPV3																										
■ VDPV1					1		1																			
■ VDPV2							67	1		1			3							1						
■ SL2	145	68			266	16	192		9	2			1						2	11	4					
■ SL1/3	44	84	2		151	236	168	161	16	15			18	6			9	12	10	1	1	2	28	16	1	
■ Entero	235	226	6	3	314	359	265	155	42	18		8	14	14	4		36	18	60	22	53	43	162	85	1	
■ Negative	12	11	13	6	9	7	26	18	1				3	22	15		5	10	67	64	41	31	14	15		
■ Pending		31		6		44		24		3		2		2	4	4		4		27		17		10	3	20

VDPVs isolations by Source and Country

EMR Polio Bulletin - Issue No. 1245 Week 32 (ending on 14/08/2022)

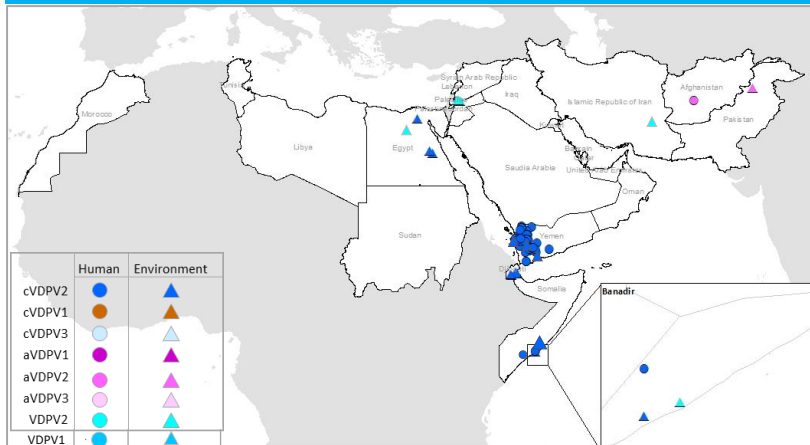
VDPV Isolates, EMR countries, 2021



VDPVs isolated from 2017-2022

VDPV Isolate type	EMR Country	Sources																											
		AFP cases(Human)						Contacts(Human)						Environment						Other Sources (Healthy Children)									
		2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent	2017	2018	2019	2020	2021	2022	Most recent
cVDPV2	Afghanistan				307	43		09-07-21											174	40		23-06-21							
	Djibouti																			5	11		24-04-22						
	Egypt																		12	5		28-04-22							
	Iran																		3	1		20-02-21							
	Pakistan			22	135	8		23-04-21										38	135	35		11-08-21							
	Somalia	6	3	14	1	2	18-02-22		3	1	11		3	22-02-22	2	19	5	26	1	2	21-04-22				1	5		1	10- 03-22
	Sudan				58		18-12-20				18			08-10-20				14			09-11-20					4			24-08-21
	Syria	74					21-09-17	63						12-09-17									4						20-08-17
Yemen				66	82	09-05-22					23	26	21-05-22				10			29-11-21									
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	30-05-21					1	14-06-21				1			21-09-21									
	Iran																	2		23-09-21									
	Pakistan				7	8	24-09-21			8	19	1	28-04-21	5		3	22	37	1	15-02-22									
	Somalia															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																	67	1	12-01-22									
	Iran																		1	04-02-22									
	Jordan																	3	25-05-22										
	Pakistan																		1	15-02-22									

VDPV Isolates, EMR countries, 2022



Important links

EMR Polio Bulletin - Issue No. 1245, Week 32 (ending on 14/08/2022)

- [Global Polio Eradication Initiative](#)
- [IMST – Outbreak Response Dashboard](#)
- [nOPV2 Tracker](#)
- [Pol-MIS](#) (restricted to registered users)
- [Containment](#) (restricted to registered users)