

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

- 13 cases of Wild Polio 1
 - 01 in Afghanistan
 - 12 in Pakistan

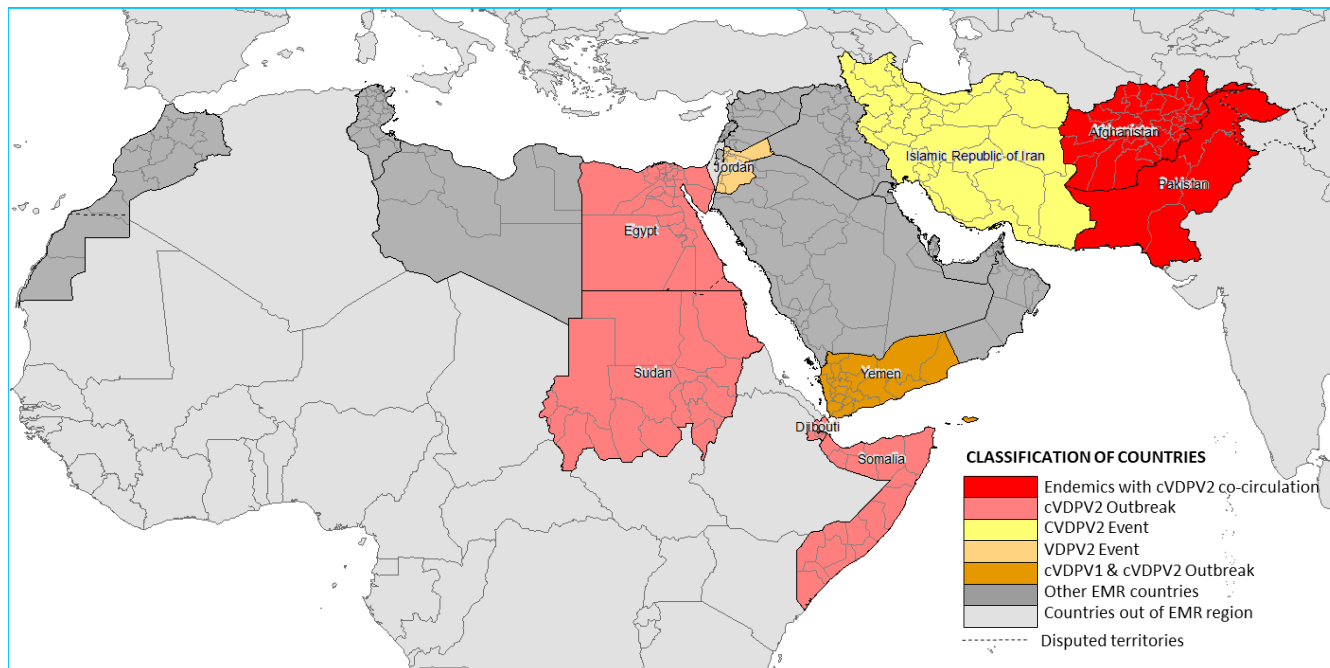
- 56 cases of cVDPV2
 - 02 in Somalia
 - 54 in Yemen

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

2022

- 05 sample Wild Polio 1
 - 01 in Afghanistan
 - 04 in Pakistan

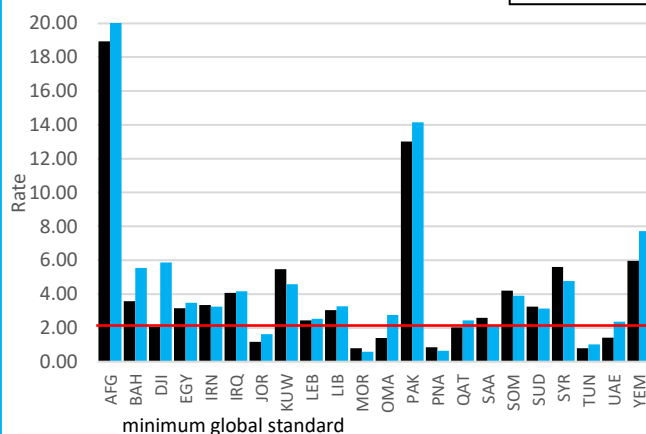
- 18 samples of cVDPV2
 - 05 in Egypt
 - 11 in Djibouti
 - 02 Somalia



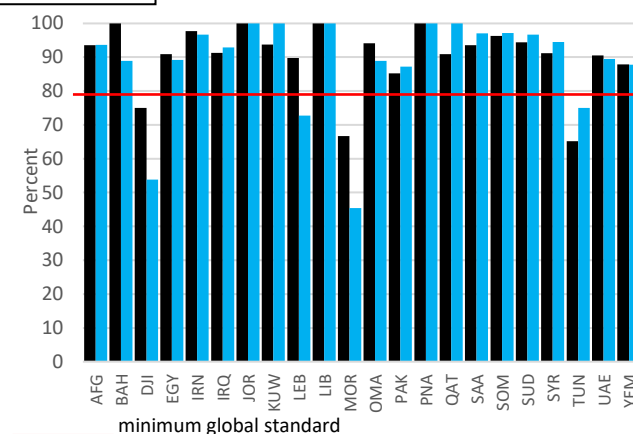
Highlights of the week

- A newly reported WPV1 case in 2022 from Pakistan was reported from Pakistan. The case is for a 21 months old male child from Waziristan-North district, Khyber Pakhtunkhwa province, with date of onset 18th June 2022. To date there are 13 WPV1 cases reported in 2022 (1 from Afghanistan and 12 from Pakistan).
- Five new cVDPV2 cases in 2022 reported from Yemen this week. The cases are from 4 provinces namely Amran, Dhamar (2), Lahaj, Sanaa City provinces with dates of onset that vary between 3 January to 26 February 2022.
- 2 new cVDPV2 cases in 2022 were lately reported: one from Gashbarka province in Eritrea boarding Kassala State in Sudan; and the other from Tamanghasset province in Alegria. Information was shared with bordering Member States and alerted for enhancement of the surveillance activities.

Non polio AFP rate



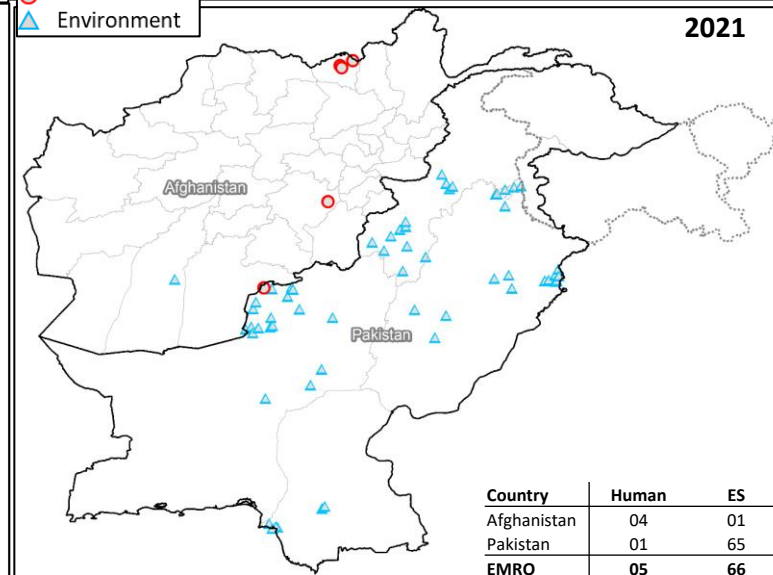
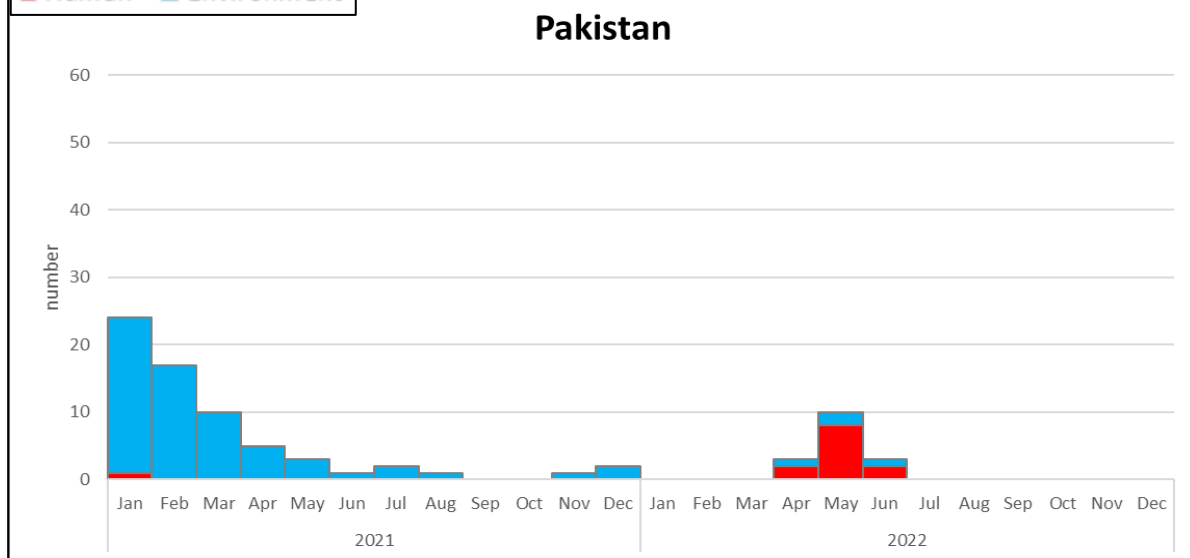
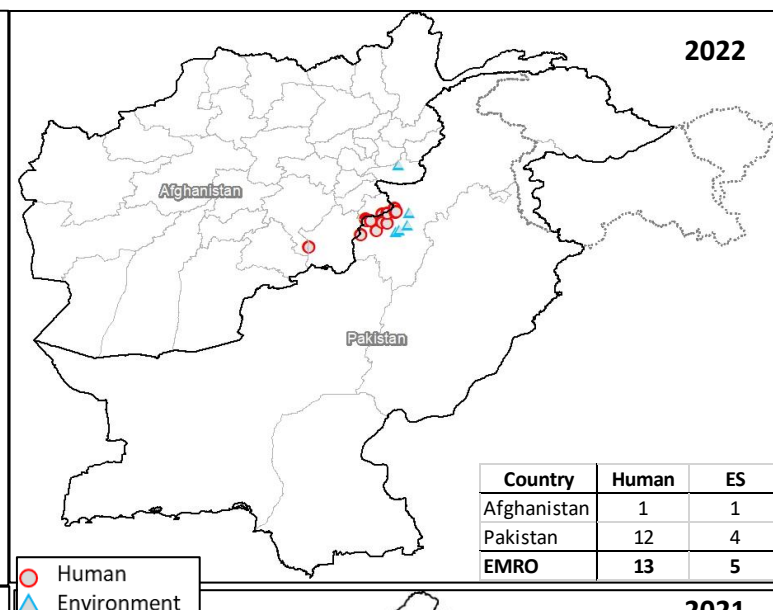
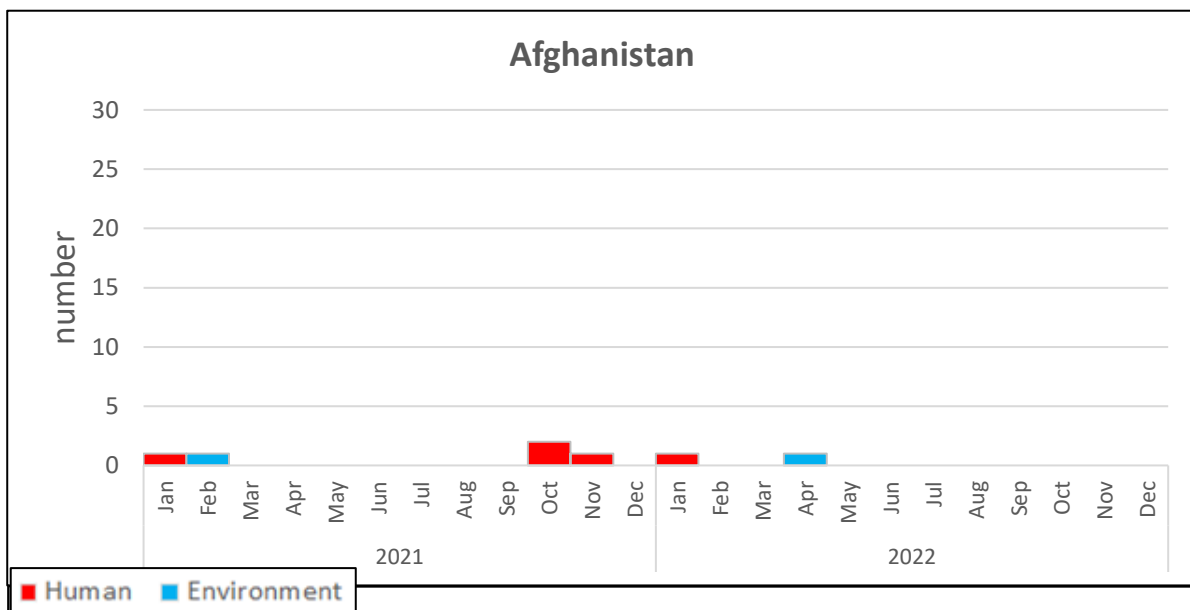
Stool adequacy



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



WPV1 Positive isolates from Afghanistan and Pakistan by source

EMR Polio Bulletin - Issue No. 1241, Week 28 (ending on 17/07/2022)



Virus isolation by country, last 12 months (Jul 17, 2021 to Jul 17, 2022)

EMR Polio Bulletin - Issue No. 1241, Week 28 (ending on 17/07/2022)

Source / Virus type	AFG	DJI	PAK	EGY	IRN	JOR	SOM	YEM	Total
 Human (AFP only)	5		13				2	122	142
Wild	4		12						16
cVDPV2							2	119	121
aVDPV2	1		1						2
VDPV2								3	3
 Environment	2	16	21	34	2	3	3	10	91
Wild	1		8						9
cVDPV2		16	1	6			2	10	35
aVDPV2	1		12		1				14
VDPV2				28	1	3	1		33
Total	7	16	34	34	2	3	5	132	233

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. 1241, Week 28 (ending on 17/07/2022)

Country	Total year 2020	Total year 2021	17 July		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2021						2022						
			2021	2022	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
Afghanistan	56	4	1	1	0	0	2	1	0	1	0	0	0	0			14-Jan-22
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			
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	0			
Iraq	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				
Kuwait	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					
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	12	0	0	0	0	0	0	0	0	2	8	2		18-Jun-22
Palestine ****	0	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				
Somalia	0	0	0	0	0	0	0	0	0	0		0					
Sudan	0	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						
Yemen	0	0	0	0	0	0	0	0	0	0							
EMR	140	5	2	13	0	0	2	1	0	1	0	0	2	8	2	0	18-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. 1241, Week 28 (ending on 17/07/2022)

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	2708	1	0	2454	1	16	0	23.10	93.65	17-Jul-22
BAHRAIN	11	0	0	11	0	0	0	3.58	100.00	9	0	0	3	0	0	0	5.55	88.89	7-Jul-22
DJIBOUTI	8	0	0	7	0	1	0	2.06	75.00	13	0	0	3	0	0	0	5.87	53.85	17-Jul-22
EGYPT	1251	0	0	1250	1	0	0	3.17	90.89	747	0	0	574	0	9	0	3.49	89.16	7-Jul-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	359	0	0	345	0	0	0	3.27	96.66	17-Jul-22
IRAQ	709	0	0	709	0	0	0	4.08	91.26	392	0	0	319	0	35	0	4.16	92.86	11-Jun-22
JORDAN	47	0	0	47	0	0	0	1.19	100.00	37	0	0	33	0	0	0	1.64	100.00	12-Jun-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	23	0	0	17	0	0	0	4.58	100.00	3-Jul-22
LEBANON	39	0	0	39	0	0	0	2.45	89.74	22	0	0	11	0	6	2	2.55	72.73	26-Jun-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	46	0	0	31	0	0	0	3.27	100.00	16-Jul-22
MOROCCO	78	0	0	78	0	0	0	0.80	66.67	33	0	0	13	0	8	0	0.59	45.45	15-Jul-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	18	0	0	18	0	0	0	2.76	88.89	17-Jul-22
PAKISTAN	13118	1	4	13094	18	1	0	13.01	85.19	7748	12	0	6987	0	125	0	14.15	87.21	17-Jul-22
PALESTINE	16	0	0	16	0	0	0	0.85	100.00	7	0	0	6	0	0	0	0.64	100.00	17-Jul-22
QATAR	11	0	0	11	0	0	0	2.03	90.91	6	0	0	5	0	0	0	2.45	100.00	17-Jul-22
SAUDI ARABIA	217	0	0	217	0	0	0	2.59	93.55	100	0	0	60	0	0	0	2.13	97.00	17-Jul-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	175	0	0	161	2	1	1	3.89	97.14	17-Jul-22
SUDAN	637	0	0	637	0	0	0	3.26	94.35	332	0	0	280	0	9	1	3.14	96.69	6-Jul-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	199	0	0	181	0	0	0	4.77	94.47	16-Jul-22
TUNISIA	23	0	0	23	0	0	0	0.81	65.22	16	0	0	11	0	0	0	1.03	75.00	15-Jul-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	19	0	0	0	0	9	2	2.38	89.47	13-Jul-22
YEMEN	921	0	0	849	72	0	0	5.96	87.84	645	0	0	204	54	149	117	7.71	87.75	16-Jul-22
EMR POL	22800	5	5	22650	138	2	0	7.97	88.33	13654	13	0	11716	57	367	123	8.77	89.51	

* 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

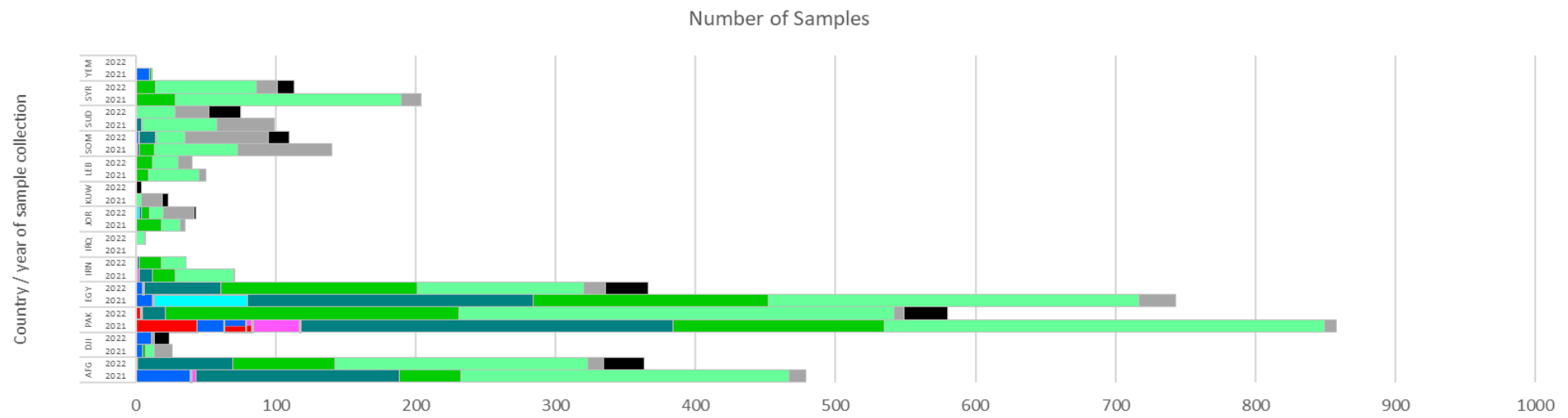
EMR Polio Bulletin - Issue No. 1241, Week 28 (ending on 17/07/2022)

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	2616	154	23	432	1744	84	136	1	111			8			129					1	15%	95%	100%	98%	17-Jul-22
Bahrain	NPL Oman / CDC	9				8		1														0%	100%		100%	14-Jul-22
Djibouti	NPL Kenya / CDC	13	2		1	2		8								2						33%	0.4		33%	17-Jul-22
Egypt***	RRL Egypt	725	17	3	90	542	24	49		7						12			3	1		12%	98%	100%	99%	07-Jul-22
Iran	NPL Iran / CDC	351	4		4	312		31		2	1					3						1%	100%	100%	99%	16-Jul-22
Iraq	NPL Iraq, RRL Egypt	472	1		42	396	13	20								2						10%	100%	50%	100%	14-Jul-22
Jordan	NPL Jordan, RRL Egypt	67	2		19	40	3	3								2						30%	100%	1	100%	17-Jul-22
Kuwait	RRL Kuwait / RIVM	19	1			15		3		1						1		1	1			5%	100%	1	100%	03-Jul-22
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	20	1			19																0%	100%			07-Jul-22
Libya	RRL Tunisia / RIVM	44				38		6														0%	100%		100%	01-Jul-22
Morocco	NPL Morocco, RRL Tunisia	27			3	23		1														11%	100%		92%	15-Jul-22
Oman	NPL Oman / CDC	20			2	17		1														13%	79%		100%	14-Jul-22
Pakistan	RRL Pakistan	7532	268	37	1199	5464	205	356	10 *	141			1			230					5	13%	96%	100%	96%	17-Jul-22
Palestine & UNRWA		7				7																0%	14%		86%	17-Jun-22
Qatar	NPL Oman / CDC	5	1			4				1												0%	80%	0	100%	14-Jul-22
Saudi Arabia	NPL Saudi Arabia / CDC	91	1		3	82		5								1						4%	86%	0%	97%	03-Jul-22
Somalia	NPL Kenya / CDC	173	7		33	124		11		2			7									20%	7%		99%	17-Jul-22
Sudan	NPL Sudan / RRL Egypt	317	8		78	202		29														27%	57%		100%	29-Jun-22
Syria	NPL Syria / RRL Egypt	188	2		13	167	1	5														6%	99%			07-Jul-22
Tunisia	RRL Tunisia	17				14		3														0%	100%		93%	01-Jul-22
U.A.E	NPL Oman / CDC	18				18																0%	100%		72%	14-Jul-22
Yemen	NPL Oman, NPL Kenya, RRL Egypt	375	94		30	171		86		3		30		26		5					34	10%	55%	37%	0%	16-Jul-22
Total EMR 2022		13106	563	63	1949	9409	330	754	11	268	1	30	16	26		387		1	4	1	40	13%	93%	93%	95%	
Total EMR 2021		22112	1183	128	3873	16915		9	5	478	7	10	363	107		599	1	1	7	2	2	14%	97%	97%	93%	

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

Environmental Surveillance Isolation by Classification

EMR Polio Bulletin - Issue No. 1241, Week 28 (ending on 17/07/2022)

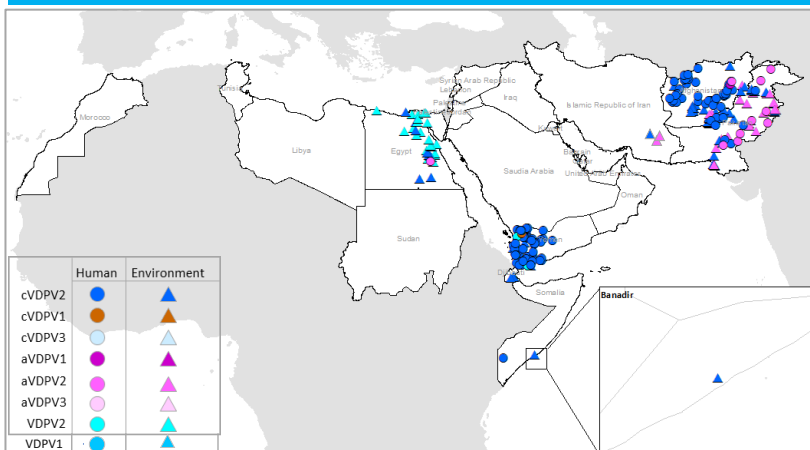


	AFG		DJI		PAK		EGY		IRN		IRQ		JOR		KUW		LEB		SOM		SUD		SYR		YEM	
	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
🇺🇦 Wild		1			44	4																				
🇺🇦 cVDPV2	39		5	11	19		12	5	1										1	2					10	
🇺🇦 Wild+cVDPV2	1				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	204	55	9	2			1						2	11	4					
🇺🇦 SL1/3	44	73	2		151	210	168	140	16	15			18	6			9	12	10	1	1		28	14	1	
🇺🇦 Entero	235	181	6		314	311	265	119	42	18		6	14	10	4		36	18	60	20	53	28	162	72	1	
🇺🇦 Negative	12	11	13	2	9	7	26	16	1				3	22	15		5	10	67	60	41	24	14	15		
🇺🇦 Pending		29		11		31		30				1		1	4	4				15		23		12		

VDPVs isolations by Source and Country

EMR Polio Bulletin - Issue No. 1241 Week 28 (ending on 17/07/2022)

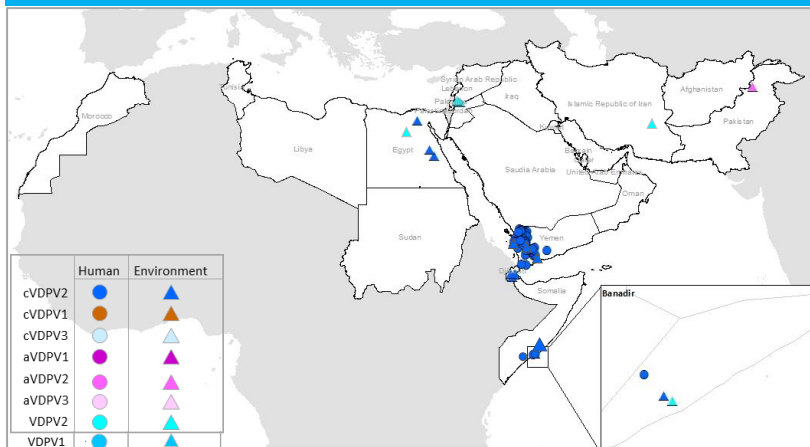
VDPV Isolates, EMR countries, 2021



VDPVs isolated from 2017-2022

VDPV Isolate type	EMR Country	Sources																	
		AFP cases(Human)						Contacts(Human)						Environment					
		2017	2018	2019	2020	2021	Most recent	2017	2018	2019	2020	2021	Most recent	2017	2018	2019	2020	2021	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
	Sudan				58		18-12-20			18			08-10-20			14			09-11-20
	Syria	74					21-09-17	63					12-09-17						4
cVDPV1	Yemen				66	54	21-03-22			23	22	26-01-22				10			29-11-21
	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			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
	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
VDPV1	Pakistan															1			05-04-21
	Libya				1		15-01-20												
VDPV2	Egypt															1			11-07-21
	Egypt															67	1		12-01-22
	Iran																1		04-02-22
	Jordan																3		25-05-22
VDPV2	Pakistan																1		15-02-22

VDPV Isolates, EMR countries, 2022



Important links

EMR Polio Bulletin - Issue No. 1240, Week 27 (ending on 10/07/2022)

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