

## Highlights



Children  
Paralyzed  
by polio



Sewage  
water  
sampling

### 2021

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

### 113 cases of cVDPV2

- 43 in Afghanistan
- 08 in Pakistan
- 01 in Somalia
- 61 in Yemen

### 03 cVDPV1 cases

in Yemen

### 2021

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

### 94 samples cVDPV2

- 40 in Afghanistan
- 35 in Pakistan
- 12 in Egypt
- 01 in Iran
- 01 in Somalia
- 05 in Djibouti

### 2022

- 02 cases of Wild Polio 1
  - 01 in Afghanistan
  - 01 in Pakistan

### 07 cases of cVDPV2

- 02 in Somalia
- 05 in Yemen

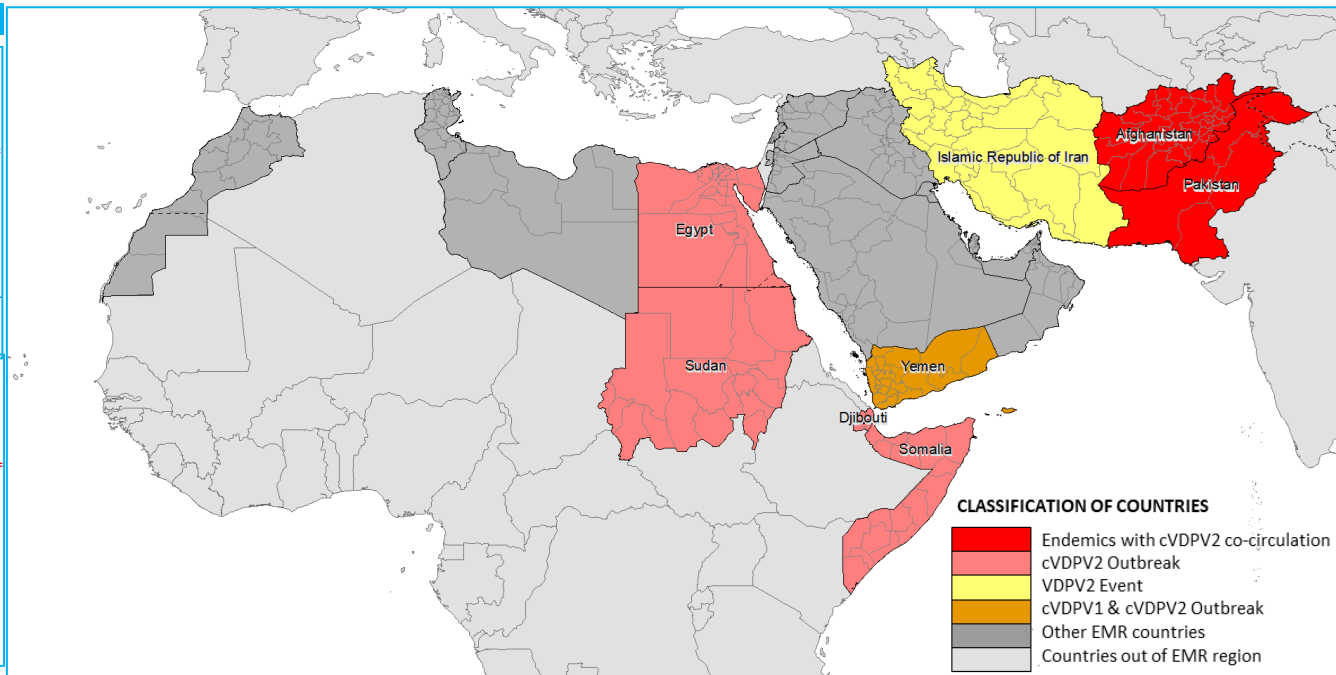
- Zero case of cVDPV1  
(No cVDPV1 for the last ten months)

### 2022

- 01 sample Wild Polio 1
  - 01 in Pakistan

### 2 samples cVDPV2

- 02 in Egypt



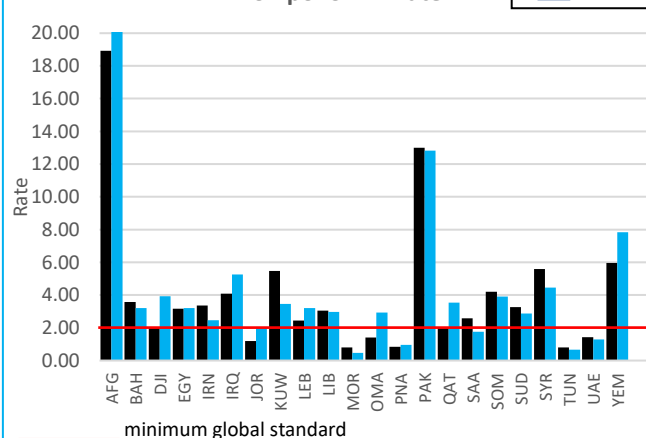
## Highlights of the week

**Pakistan** reports detection of wild poliovirus type-1 from a 15 months old male child from North Waziristan district with date of onset 9 April 2022; and from an environmental sample collected on 5 April 2022 from Bannu. Both districts are in Khyber Pakhtunkhwa province. Genetic data of new WPV1 isolates reflects ongoing poliovirus circulation in southern KP.

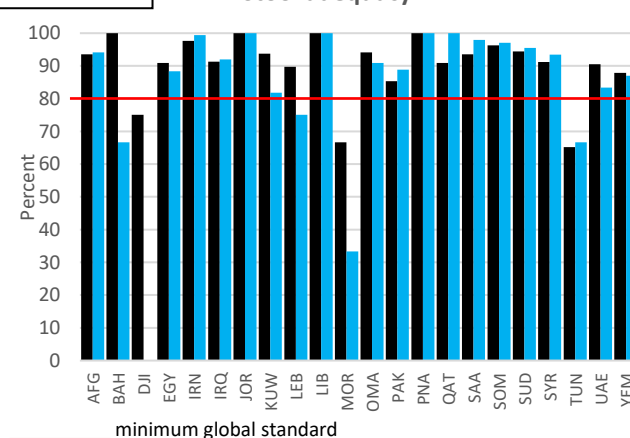
**Somalia:** A new cVDPV2 case is reported from inaccessible areas of Lower Shabelle province, with date of onset 18 February 2022. The case was identified due to cVDPV2 detection in two contacts.

Urgent and fullest implementation of Southern KP Plan and Somalia Emergency Action Plan in Pakistan and Somalia, respectively are recommended for seamless quality of vaccination activities and certification standard surveillance in all geographies and population groups especially those have inaccessibility and migrant/mobile high-risk groups.

### Non polio AFP rate

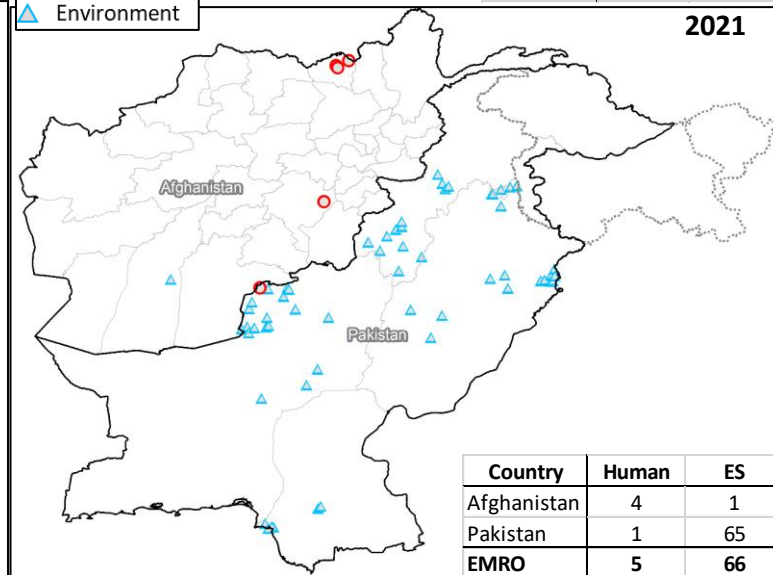
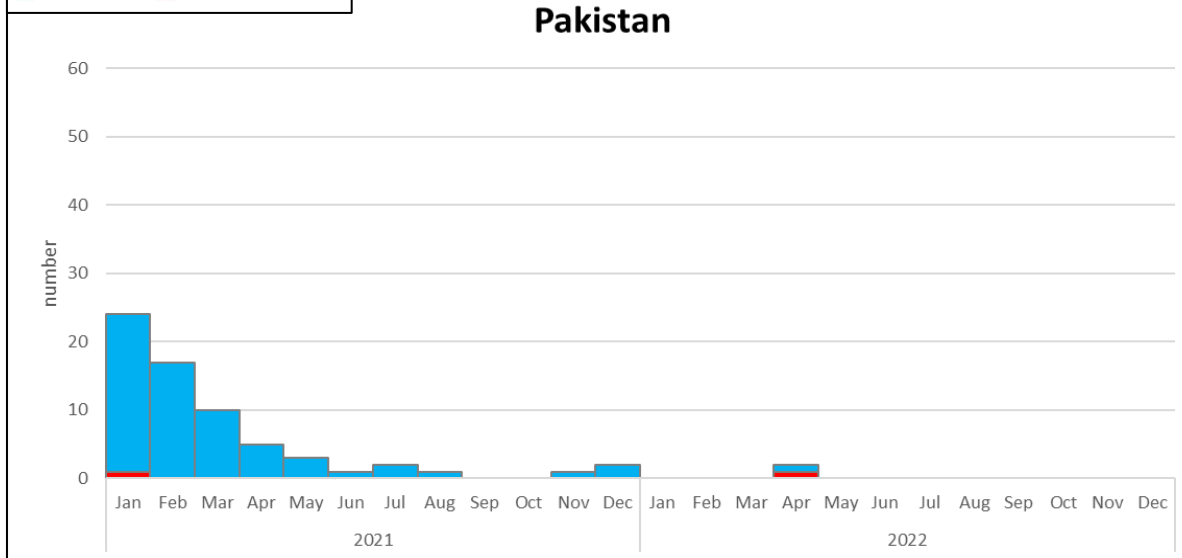
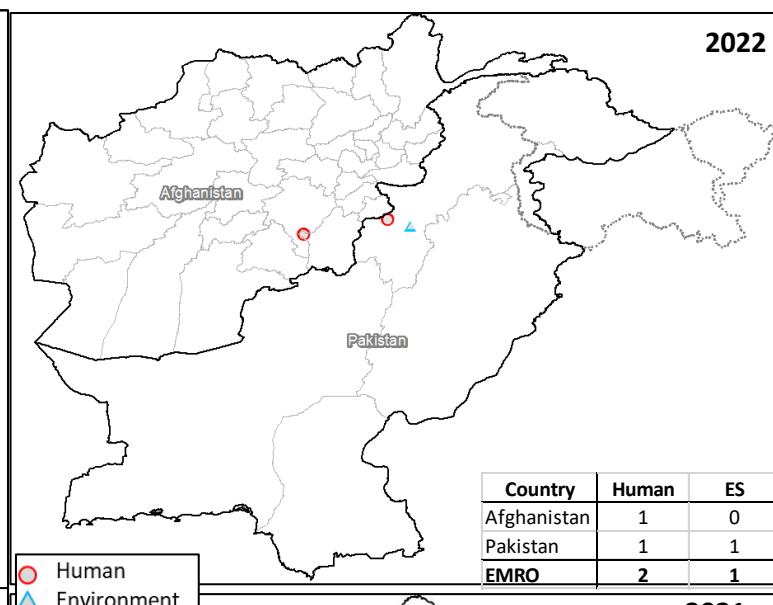
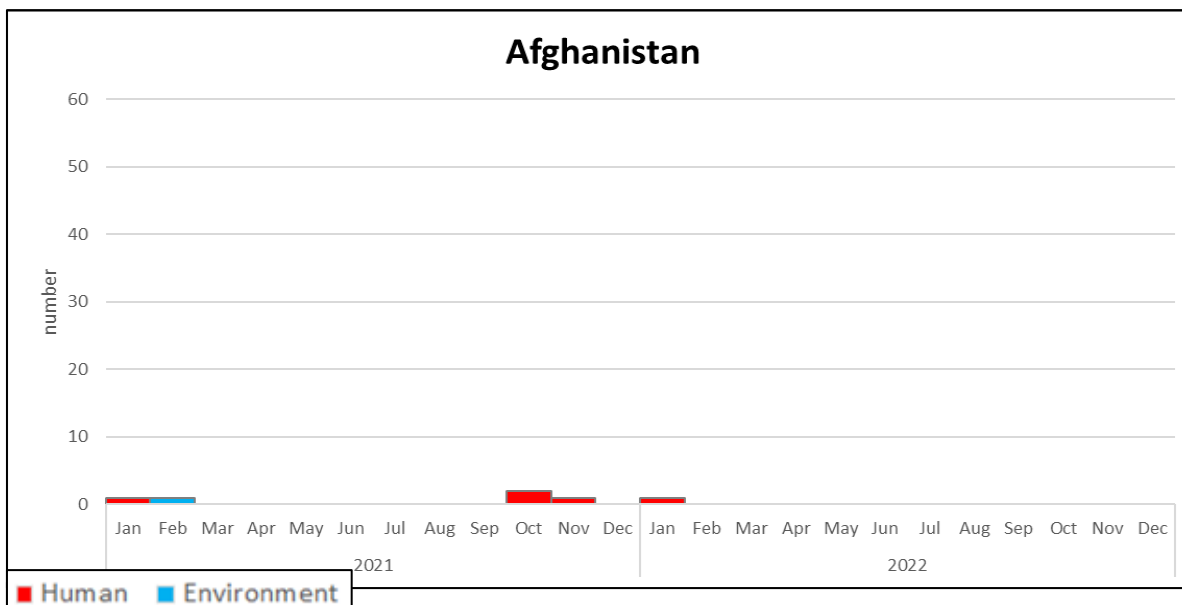


### Stool adequacy



# WPV1 Positive isolates from Afghanistan and Pakistan by source

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# Virus isolation by country, last 12 months (Apr. 24, 2021 to Apr. 24, 2022)

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Source / Virus type	AFG	DJI	PAK	EGY	IRN	SOM	YEM	Total
<b>Human (AFP only)</b>	<b>9</b>		<b>3</b>	<b>1</b>		<b>3</b>	<b>69</b>	<b>85</b>
Wild	4		1					5
cVDPV2	4					3	65	72
aVDPV2	1		2	1				4
VDPV1								
VDPV2							3	3
cVDPV2+aVDPV1							1	1
<b>Environment</b>	<b>4</b>	<b>5</b>	<b>32</b>	<b>74</b>	<b>3</b>	<b>1</b>		<b>119</b>
Wild			11					11
cVDPV2	3	5	4	5		1		18
aVDPV2	1		16		2			19
VDPV1				1				1
VDPV2			1	68	1			70
cVDPV2+aVDPV1								
<b>Total</b>	<b>13</b>	<b>5</b>	<b>35</b>	<b>75</b>	<b>3</b>	<b>4</b>	<b>69</b>	<b>204</b>

*Five nOPV2-related Environmental Isolates from Egypt in 2022*

*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 2020	Total year 2021	3 April		Confirmed Wild Polio 1 Cases by month of onset												Recent most Case
					2021						2022						
			2021	2022	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Afghanistan	56	4	1	1	0	0	0	0	0	2	1	0	1				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	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	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	84	1	1	1	0	0	0	0	0	0	0	0	0			1	09-Apr-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	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	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						
EMR	140	5	2	2	0	0	0	0	0	2	1	0	1	0	0	1	09-Apr-22

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

# Investigation of AFP cases with paralysis onset in 2021 & 2022

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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	4021	45	17	0	18.92	93.52	1365	1	0	1114	1	11	0	20.19	94.14	24-Apr-22
BAHRAIN	11	0	0	11	0	0	0	3.58	100.00	3	0	0	1	0	0	0	3.21	66.67	24-Apr-22
DJIBOUTI	8	0	0	4	0	4	3	2.06	75.00	5	0	0	0	0	0	0	3.92	0.00	24-Apr-22
EGYPT	1251	0	0	1238	1	12	1	3.17	90.89	394	0	0	282	0	1	0	3.20	88.32	21-Apr-22
IRAN	681	0	0	680	1	0	0	3.36	97.65	156	0	0	134	0	0	0	2.47	99.36	24-Apr-22
IRAQ	709	0	0	709	0	0	0	4.08	91.26	285	0	0	222	0	10	0	5.25	91.93	22-Apr-22
JORDAN	47	0	0	47	0	0	0	1.19	100.00	26	0	0	20	0	0	0	2.05	100.00	24-Apr-22
KUWAIT	48	0	0	48	0	0	0	5.47	93.75	11	0	0	5	0	0	0	3.46	81.82	24-Apr-22
LEBANON	39	0	0	39	0	0	0	2.45	89.74	16	0	0	6	0	1	0	3.22	75.00	24-Apr-22
LIBYA	79	0	0	79	0	0	0	3.05	100.00	24	0	0	17	0	0	0	2.96	100.00	24-Apr-22
MOROCCO	78	0	0	78	0	0	0	0.80	66.67	15	0	0	0	0	4	2	0.46	33.33	22-Apr-22
OMAN	17	0	0	17	0	0	0	1.41	94.12	11	0	0	11	0	0	0	2.93	90.91	24-Apr-22
PAKISTAN	13106	1	4	13071	18	12	0	13.00	85.27	4037	1	0	3265	0	97	0	12.82	88.85	24-Apr-22
PALESTINE	16	0	0	16	0	0	0	0.85	100.00	6	0	0	0	0	2	0	0.96	100.00	17-Apr-22
QATAR	11	0	0	11	0	0	0	2.03	90.91	5	0	0	0	0	0	0	3.55	100.00	24-Apr-22
SAUDI ARABIA	217	0	0	217	0	0	0	2.59	93.55	48	0	0	18	0	0	0	1.76	97.92	24-Apr-22
SOMALIA	349	0	0	348	1	0	0	4.21	96.28	101	0	0	89	2	0	0	3.90	97.03	24-Apr-22
SUDAN	637	0	0	637	0	0	0	3.26	94.35	175	0	0	154	0	1	0	2.88	95.43	21-Apr-22
SYRIA	431	0	0	431	0	0	0	5.60	91.18	107	0	0	83	0	0	0	4.45	93.46	23-Apr-22
TUNISIA	23	0	0	23	0	0	0	0.81	65.22	6	0	0	5	0	0	0	0.67	66.67	22-Apr-22
U.A.E.	21	0	0	21	0	0	0	1.42	90.48	6	0	0	0	0	1	0	1.30	83.33	19-Apr-22
YEMEN	921	0	0	835	67	19	6	5.96	87.84	377	0	0	100	5	34	22	7.83	87.00	23-Apr-22
EMR POL	22788	5	5	22581	133	64	10	7.96	88.38	7179	2	0	5526	8	162	24	8.01	90.33	

\* 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)

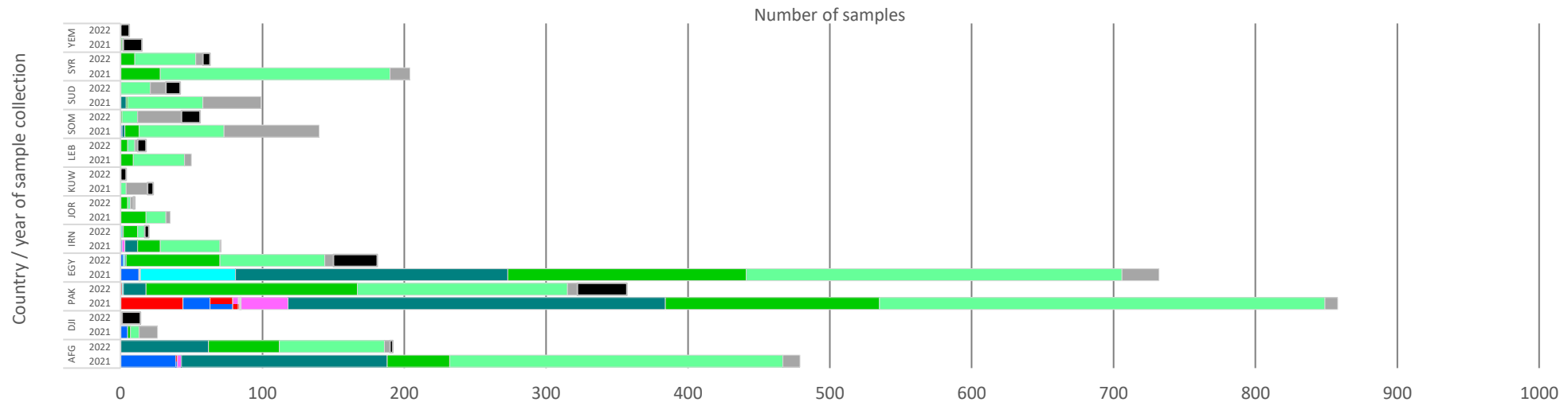
# Laboratory investigation of AFP cases with paralysis onset in 2022

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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	1345	101	12	194	854	139		1	64			8			77					5	14%	94%	100%	99%	24-Apr-22
Bahrain	NPL Oman / CDC	3				3																0%	100%		100%	21-Apr-22
Djibouti	NPL Kenya / CDC	5					1	4																		24-Apr-22
Egypt***	RRL Egypt	398	10	1	42	282	57	6		3						7			1	1		11%	98%	100%	100%	21-Apr-22
Iran	NPL Iran / CDC	175	2		2	142	29			1	1					2						1%	99%	100%	99%	24-Apr-22
Iraq	NPL Iraq, RRL Egypt	290	1		18	235	34	2								2						7%	100%	50%	100%	21-Apr-22
Jordan	NPL Jordan, RRL Egypt	20			3	14		3														18%	100%		100%	10-Apr-22
Kuwait	RRL Kuwait / RIVM	7				6	1															0%	100%		100%	21-Apr-22
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	12				12																0%	100%			23-Apr-22
Libya	RRL Tunisia / RIVM	26				25	1															0%	100%		100%	22-Apr-22
Morocco	NPL Morocco, RRL Tunisia	14				12	2															0%	100%		92%	22-Apr-22
Oman	NPL Oman / CDC	13			2	11																13%	85%		100%	21-Apr-22
Pakistan	RRL Pakistan	4011	156	21	570	2796	460	8	1	85			1			134					1	12%	94%	99%	97%	24-Apr-22
Palestine & UNRWA		6				5	1															0%	0%		80%	17-Apr-22
Qatar	NPL Oman / CDC	5	1			4				1												0%	80%	0	100%	21-Apr-22
Saudi Arabia	NPL Saudi Arabia / CDC	56			1	50	5															2%	90%		100%	24-Apr-22
Somalia	NPL Kenya / CDC	101	2		17	74		10					2									18%	9%		100%	24-Apr-22
Sudan	NPL Sudan / RRL Egypt	186			36	125	25															22%	78%		100%	21-Apr-22
Syria	NPL Syria / RRL Egypt	101	2		4	84	11															3%	99%			23-Apr-22
Tunisia	RRL Tunisia	7				6	1															0%	100%		100%	22-Apr-22
U.A.E	NPL Oman / CDC	6				6																0%	100%		83%	21-Apr-22
Yemen	NPL Oman, NPL Kenya, RRL Egypt	228	43		16	88	82			2		34		5		2					2	11%	82%	15%	1%	23-Apr-22
Total EMR 2022		7015	318	34	905	4834	849	33	2	156	1	34	11	5		224			1	1	8	12%	93%	89%	95%	
Total EMR 2021		22110	1182	128	3869	16913	5	9	5	477	7	16	363	103		599	1	1	7	2	3	14%	97%	97%	93%	

# Environmental Surveillance Isolation by Classification

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	AFG		DJI		PAK		EGY		IRN		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
Wild					44	1																		
cVDPV2	39		5		19		13	2	1								1							
Wild+cVDPV2	1				16																			
Wild+aVDPV2					4																			
Wild+aVDPV3					1																			
aVDPV1					1																			
aVDPV2	3				33				2															
aVDPV3																								
VDPV1							1																	
VDPV2						1	67	1		1														
SL2	145	62			266	16	192	1	9	1							2		4					
SL1/3	44	50	2		151	149	168	66	16	10	18	5			9	5	10	1	1		28	10	1	
Entero	235	74	6		314	148	265	74	42	5	14	2	4		36	5	60	11	53	21	162	43	1	
Negative	12	4	13	1	9	7	26	6	1		3	2	15		5	2	67	31	41	11	14	5		
Pending		2		13		35		31		3		1	4	4		6		13		10		5	13	6

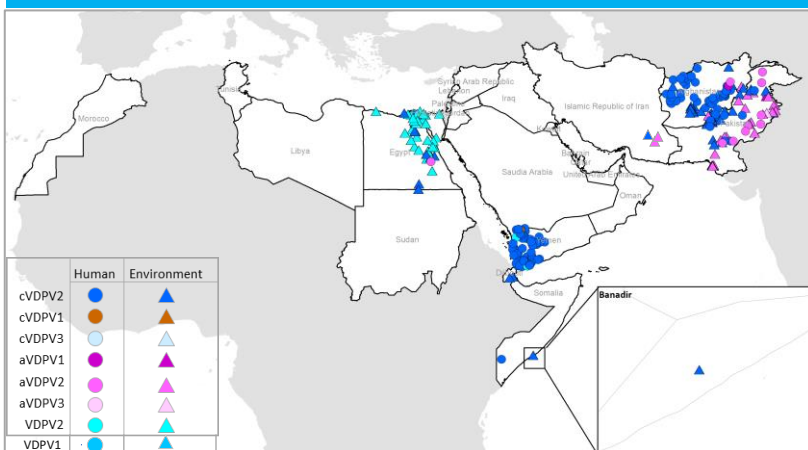
Five nOPV2-related Environmental Isolates from Egypt in 2022

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

# VDPVs isolations by Source and Country

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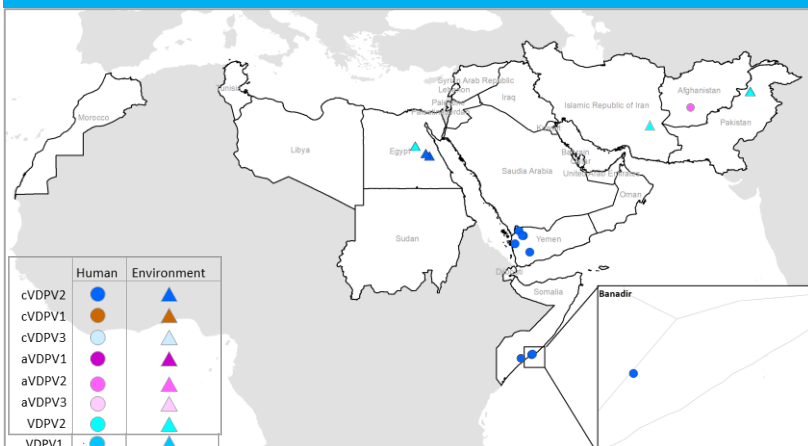
## VDPV Isolates, EMR countries, 2021



## 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	Most recent	2017	2018	2019	2020	2021	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			28-12-21					
	Egypt																	12	2		09-03-22						
	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		23-05-21			1	5	
	Sudan				58			18-12-20				18			08-10-20				14			09-11-20				4	
	Syria	74						21-09-17	63						12-09-17												
Yemen					61	5	07-01-22					23	5	17-01-22													
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																			
	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			28-09-21					
	Pakistan				7	8		24-09-21			8	19	1		28-04-21	5			3	22	37	06-12-21					
	Somalia															2	1					03-02-19					
	Yemen											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					
	Pakistan																		1		15-02-22						
	Yemen					3		01-11-21																			

## VDPV Isolates, EMR countries, 2022



Five nOPV2-related Environmental Isolates from Egypt in 2022



# Important links

EMR Polio Bulletin - Issue No. 1229, Week 16 (ending on 24/04/2022)

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