

EMR Polio Bulletin

World Health Organization – Regional Office for Eastern Mediterranean Issue No. 1202, Week 41 (ending on 17/10/2021)

Highlights



Children
Paralyzed
by polio

2020

- 140 Wild Polio cases:
 - 56 in Afghanistan
 - 84 in Pakistan

- 515 cVDPV2 cases:
 - 308 in Afghanistan
 - 135 in Pakistan
 - 58 in Sudan
 - 14 in Somalia

- 31 cVDPV1 cases:
 - All in Yemen

2021

- 2 Wild Polio cases:
 - 1 in Afghanistan
 - 1 in Pakistan

- 52 cVDPV2 cases:
 - 43 in Afghanistan
 - 8 in Pakistan
 - 0 in Sudan
 - 1 in Somalia

- 3 cVDPV1 cases:
 - All in Yemen



Sewage
water
sampling

2020

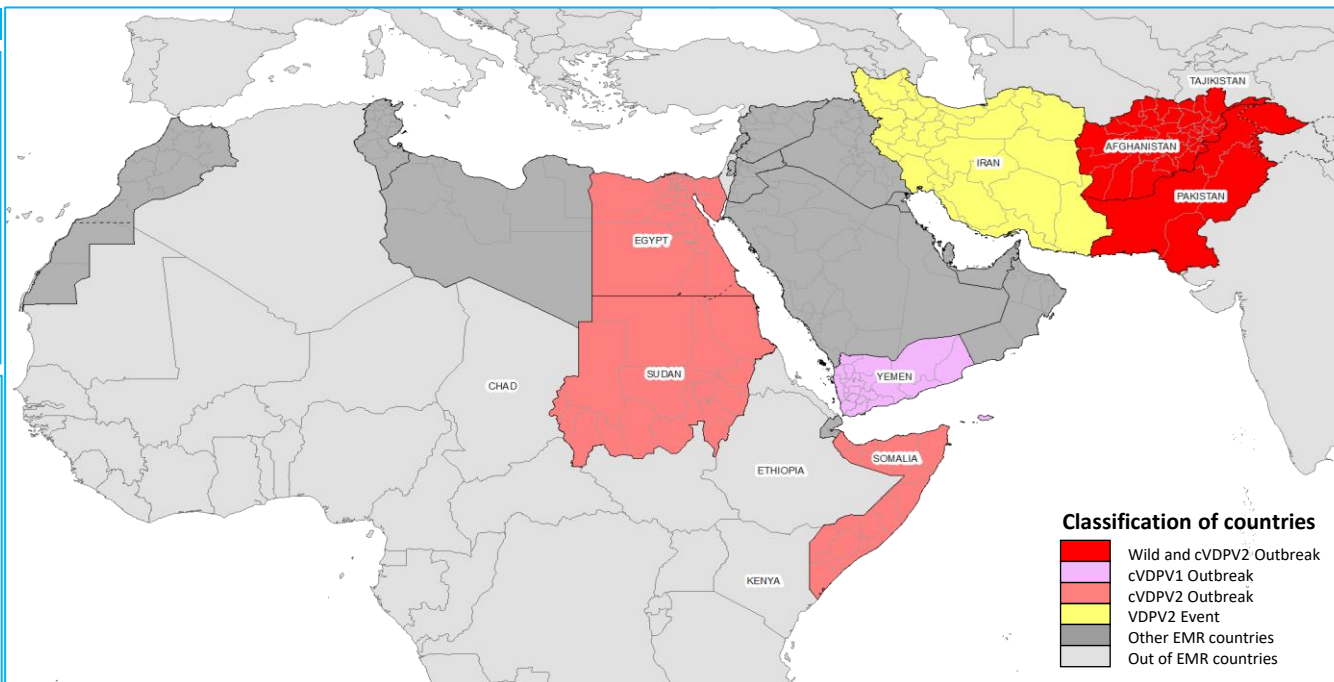
- 469 Wild Polio isolates:
 - 35 in Afghanistan
 - 434 in Pakistan

- 352 cVDPV2 Isolates:
 - 174 in Afghanistan
 - 135 in Pakistan
 - 0 in Egypt
 - 3 in Iran
 - 14 in Sudan
 - 26 in Somalia

2021

- 63 Wild Polio cases:
 - 1 in Afghanistan
 - 62 in Pakistan

- 87 cVDPV2 Isolates:
 - 40 in Afghanistan
 - 35 in Pakistan
 - 10 in Egypt
 - 1 in Iran
 - 0 in Sudan
 - 1 in Somalia

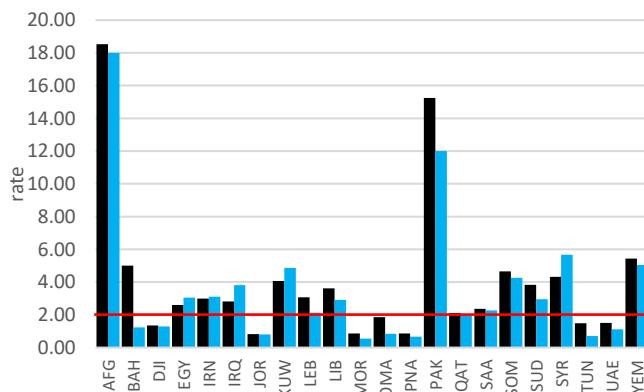


Highlights of the week

- No new WPV1 were reported from human or environmental samples.
- A new circulating VDPV type-2 (cVDPV2) case is reported from Somalia with date of onset 12th May 2021. This case is given a new IDCODE because initially it was identified in Garissa, Kenya, but originated from Salagle district in Middle Jubba region.
- One environmental sample from Egypt earlier identified as VDPV2 was confirmed by the lab to be SL3 only.
- The 14th Meeting of South-East Asia Regional Certification Commission for Polio Eradication (RCCEP), Virtual, is scheduled from 20 to 22 October 2021 with participation from WHO/EMRO.
- The Pakistan External/Independent Surveillance Review, commences from 9 October and ends on 23 October 2021.
- Polio eradication teams continued in contributing to the COVID19 Response, particularly in areas of surveillance, data analysis, communications, and coordination.

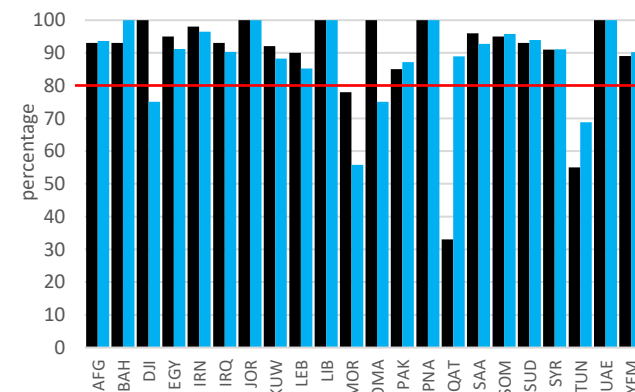
Wild Poliovirus type-1 (WPV1) Vaccine-derived Poliovirus (VDPV)

Non polio AFP rate



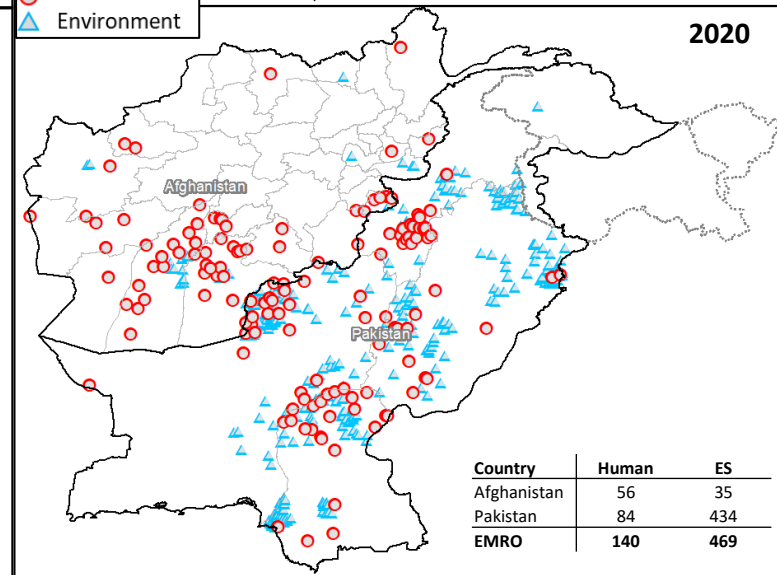
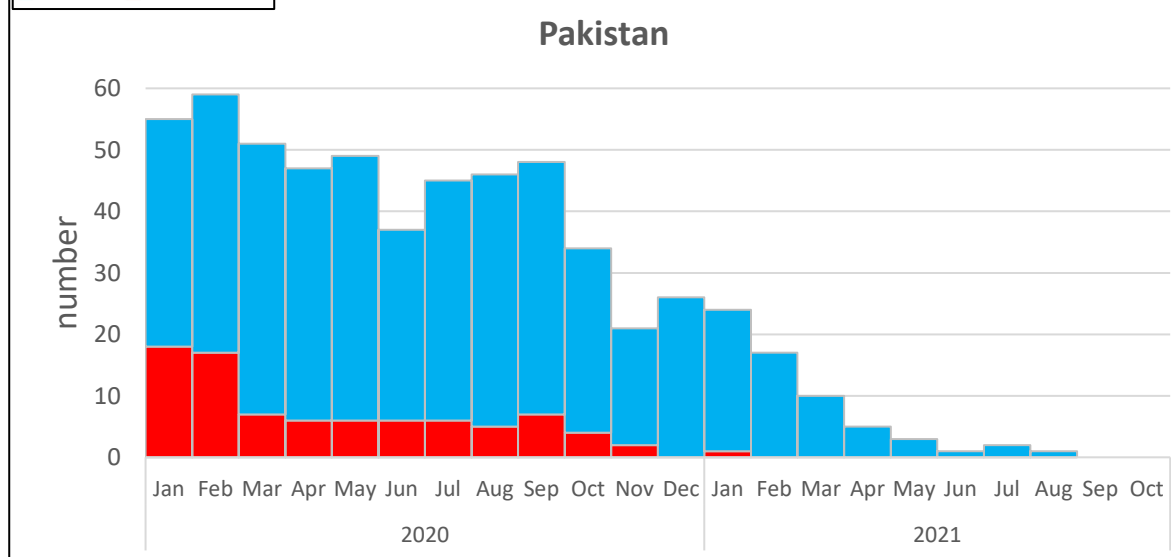
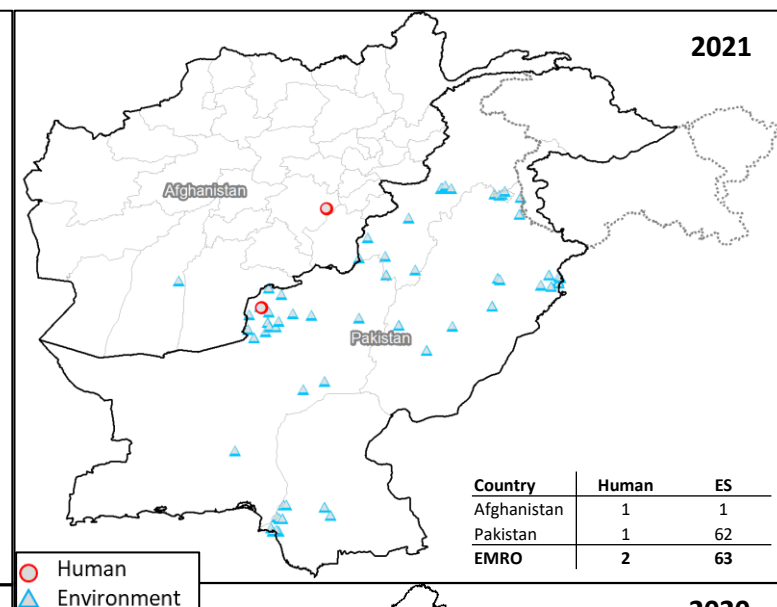
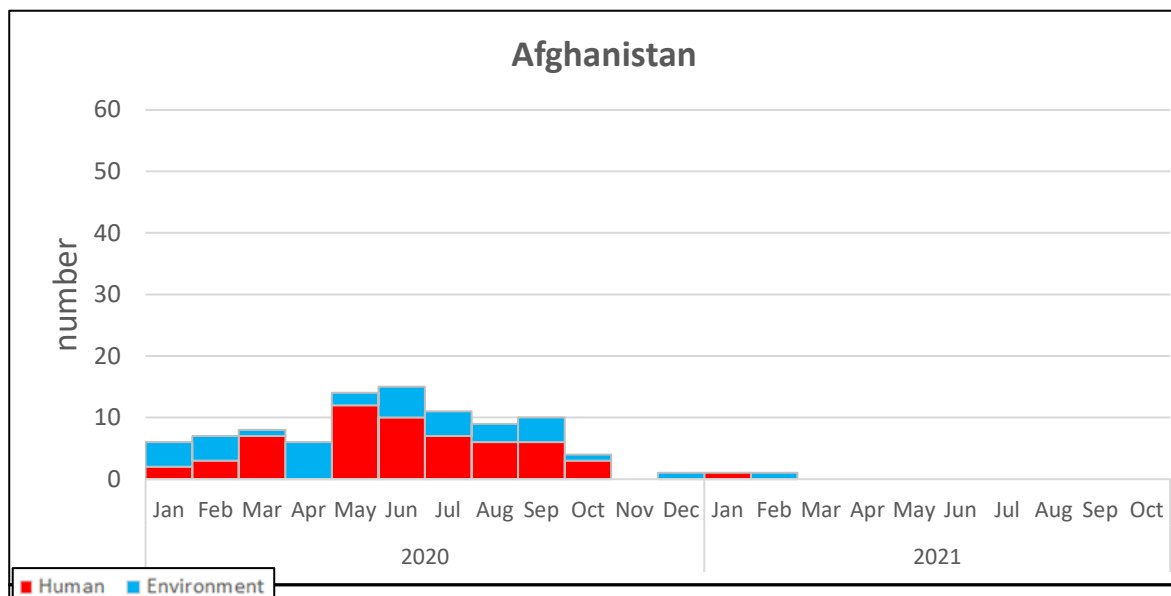
2020 2021

Stool adequacy



WPV1 Positive isolates from AFG/PAK by source

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Virus isolation by country, last 12 months (Oct. 17, 2020 to Oct. 17, 2021)

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Source / Virus type	AFG	PAK	EGY	IRN	SOM	SUD	YEM	Total
Human (AFP only)	147	39	1		3	12	5	207
Wild	2	3						5
cVDPV2	138	25			3	12		178
Wild+cVDPV2	1	1						2
Wild+aVDPV2								
Wild+aVDPV3								
cVDPV1							5	5
aVDPV1	1	1						2
aVDPV2	3	7	1					11
aVDPV	2	2						4
VDPV1								
VDPV2								
Environment	90	192	74	4	2	1		363
Wild		74						74
cVDPV2	84	40	10	3	2	1		140
Wild+cVDPV2	2	33						35
Wild+aVDPV2		6						6
Wild+aVDPV3		1						1
cVDPV1								
aVDPV1		1						1
aVDPV2	4	37		1				42
aVDPV								
VDPV1			1					1
VDPV2			63					63

Confirmed Wild Polio Cases by month of onset

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Country	Total year 2019	Total year 2020	03-10		Confirmed Wild Polio Cases by month of onset												Last Case
					2020		2021										
			2020	2021	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Afghanistan	29	56	54	1	0	0	1	0	0	0	0	0	0	0			01-Jan-21
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	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				
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	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								
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pakistan	147	84	81	1	2	0	1	0	0	0	0	0	0	0			27-Jan-21
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	0			
Somalia	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				
U.A.E	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Yemen	0	0	0	0	0	0	0	0	0	0							
EMR	176	140	135	2	2	0	2	0	0	0	0	0	0	0	0	0	27-Jan-21

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

Investigation of AFP cases with paralysis onset in 2020 & 2021

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COUNTRY	AFP (2020)									AFP (2021)									Line List 2021
	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	3972	56	3	3600	314	0	0	18.53	92.60	3087	1	1	2836	45	22	0	18.01	93.62	17-Oct-21
BAHRAIN	15	0	0	15	0	0	0	5.00	93.33	3	0	0	3	0	0	0	1.23	100.00	10-Oct-21
DJIBOUTI	5	0	0	5	0	0	0	1.35	100.00	4	0	0	4	0	0	0	1.30	75.00	17-Oct-21
EGYPT	1009	0	0	1009	0	0	0	2.60	94.65	958	0	0	884	1	5	0	3.05	91.13	14-Oct-21
IRAN	618	0	0	618	0	0	0	2.99	98.54	504	0	0	487	0	0	0	3.12	96.43	16-Oct-21
IRAQ	476	0	0	476	0	0	0	2.81	93.28	527	0	0	484	0	7	0	3.82	90.32	15-Oct-21
JORDAN	32	0	0	32	0	0	0	0.83	100.00	25	0	0	20	0	0	0	0.80	100.00	14-Oct-21
KUWAIT	36	0	0	36	0	0	0	4.06	91.67	34	0	0	32	0	0	0	4.88	88.24	17-Oct-21
LEBANON	49	0	0	49	0	0	0	3.07	89.80	27	0	0	23	0	2	0	2.13	85.19	16-Oct-21
LIBYA	95	0	0	94	1	0	0	3.62	100.00	60	0	0	56	0	0	0	2.91	100.00	15-Oct-21
MOROCCO	87	0	0	87	0	0	0	0.86	78.16	43	0	0	12	0	27	10	0.55	55.81	18-Sep-21
OMAN	22	0	0	22	0	0	0	1.85	100.00	8	0	0	8	0	0	0	0.84	75.00	10-Oct-21
PAKISTAN	11972	84	29	11719	142	0	0	15.25	85.43	9605	1	3	8748	17	124	0	12.00	87.12	17-Oct-21
PALESTINE	16	0	0	16	0	0	0	0.87	100.00	10	0	0	4	0	0	0	0.67	100.00	17-Oct-21
QATAR	9	0	0	9	0	0	0	2.11	33.33	9	0	0	2	0	0	0	1.98	88.89	16-Oct-21
SAUDI ARABIA	200	0	0	200	0	0	0	2.37	96.00	151	0	0	105	0	0	0	2.27	92.72	17-Oct-21
SOMALIA	376	0	0	361	15	0	0	4.66	94.68	280	0	0	217	1	2	1	4.25	95.71	17-Oct-21
SUDAN	733	0	0	675	58	0	0	3.84	92.91	458	0	0	430	0	5	0	2.96	93.89	14-Oct-21
SYRIA	343	0	0	343	0	0	0	4.32	90.96	346	0	0	312	0	0	0	5.66	91.04	16-Oct-21
TUNISIA	42	0	0	42	0	0	0	1.49	54.76	16	0	0	14	0	0	0	0.71	68.75	15-Oct-21
U.A.E.	19	0	0	19	0	0	0	1.52	100.00	13	0	0	2	0	8	0	1.11	100.00	11-Oct-21
YEMEN	825	0	1	794	31	0	0	5.44	88.73	620	0	0	334	3	95	84	5.05	90.16	16-Oct-21
EMR POL	20951	140	33	20221	561	0	0	7.96	88.59	16788	2	4	15017	67	297	95	7.39	89.47	

* 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, within 14 days of paralysis onset and specimens received in the lab in Good Condition

**** Includes all VDPV cases. Further details available page number

For further details on Contacts click: [detail of contact samples](#)

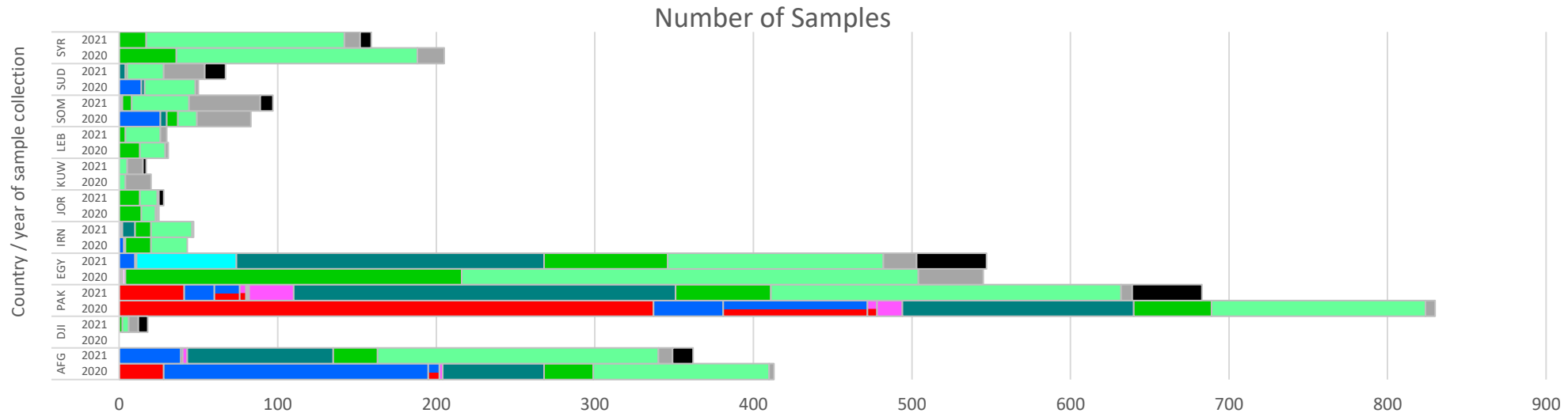
Laboratory investigation of AFP cases with paralysis onset in 2021

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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+/N PEV	received within last 14 days	received more than 14 days ago	Wild	Sabin	VDPV	Wild	Sabin	VDPV	Wild									
Afghanistan	RRL Pakistan	3038	237	38	550	2079	106	2	1	115	1		71	40		105			2			16%	99%	99%	98%	17-Oct-21
Bahrain	NPL Oman / CDC	3				3															0%	100%		0%	11-Oct-21	
Djibouti	NPL Kenya / CDC	4			1																100%			100%	17-Oct-21	
Egypt***	RRL Egypt	933	61	3	121	710	36	2		3			58			2				2		12%	97%	100%	99%	14-Oct-21
Iran	NPL Iran / CDC	508	12		6	483	6	1		3			6			3						1%	100%	100%	98%	16-Oct-21
Iraq	NPL Iraq, RRL Egypt	521	8		37	455	21			3						15						7%	100%	50%	97%	14-Oct-21
Jordan	NPL Jordan, RRL Egypt	25			3	20	2															13%	100%		100%	17-Oct-21
Kuwait	RRL Kuwait / RIVM	34				33	1															0%	100%		97%	14-Oct-21
Lebanon	NPL Jordan, NPL Syria, RRL Egypt	26			1	25																4%	100%			14-Oct-21
Libya	RRL Tunisia / RIVM	57				56		1														0%	100%		82%	1-Oct-21
Morocco	NPL Morocco, RRL Tunisia	41			1	39		1														3%	100%		98%	10-Sep-21
Oman	NPL Oman / CDC	8				8																1%	88%		100%	11-Oct-21
Pakistan	RRL Pakistan	9411	496	58	1977	6425	447	18	1	212	1		172	13		250	1		6		3	18%	100%	100%	97%	17-Oct-21
Palestine & UNRWA		10				10																0%	10%		100%	17-Oct-21
Qatar	NPL Oman / CDC	3				3																0%	100%		100%	11-Oct-21
Saudi Arabia	NPL Saudi Arabia / CDC	146	2			142	2									2						0%	94%	50%	97%	17-Oct-21
Somalia	NPL Kenya / CDC	280	4		35	179	2	59		2				1		2						16%	4%		80%	17-Oct-21
Sudan	NPL Sudan / RRL Egypt	456	1		73	363	18	2					1			1						17%	88%	100%	67%	14-Oct-21
Syria	NPL Syria / RRL Egypt	335	6		20	290	11	8														6%	100%		0%	14-Oct-21
Tunisia	RRL Tunisia	15				14		1														0%	100%		100%	1-Oct-21
U.A.E	NPL Oman / CDC	12				12																0%	100%		42%	11-Oct-21
Yemen	NPL Oman, NPL Kenya, RRL Egypt	282	9		58	215				1	3					5						16%	100%	100%	0%	16-Oct-21
Total EMR 2021		16148	836	99	2883	11564	652	95	2	339	5		308	54		385	1		8	2	3	15%	98%	99%	95%	
Total EMR 2020		20387	1680	93	3046	15557		4	129	352	32		509	468		462	2	3	18	11		14%	94%	97%	93%	

Environmental Surveillance Isolation by Classification

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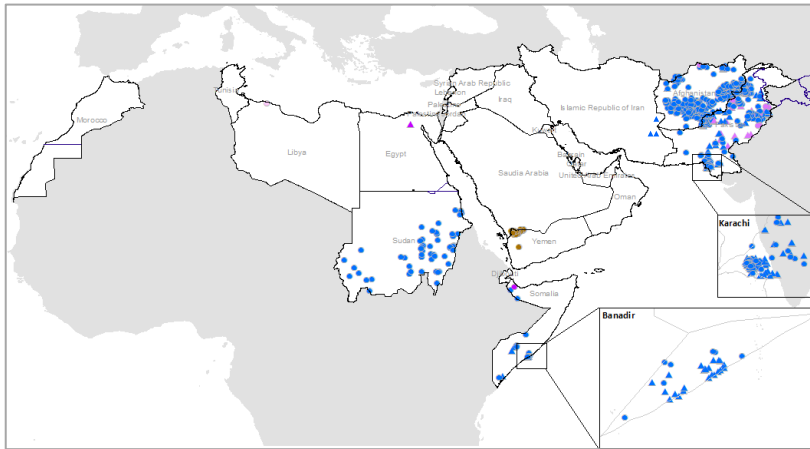


	AFG		DJI		PAK		EGY		IRN		JOR		KUW		LEB		SOM		SUD		SYR	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Wild	28				337	41																
cVDPV2	167	39			44	19		10	3	1							26	1	14			
Wild+cVDPV2	7	1			91	16																
Wild+aVDPV2					6	4																
Wild+aVDPV3						1																
aVDPV1						1	1															
aVDPV2	2	3			16	28	1			1												
aVDPV3							2															
VDPV1								1														
VDPV2								63														
SL2	64	92			146	241		194	1	8							4	1	2	4		
SL1/3	31	28		2	49	60	212	78	16	10	14	13			13	4	7	6		1	36	17
Entero	111	177		4	135	221	288	136	23	26	9	11	4	5	16	22	12	36	32	23	152	125
Negative	3	9		6	6	7	41	21		1	1	1	16	10	2	4	34	45	2	26	17	10
Pending		13		6		44		44			1	3		2				8		13		7

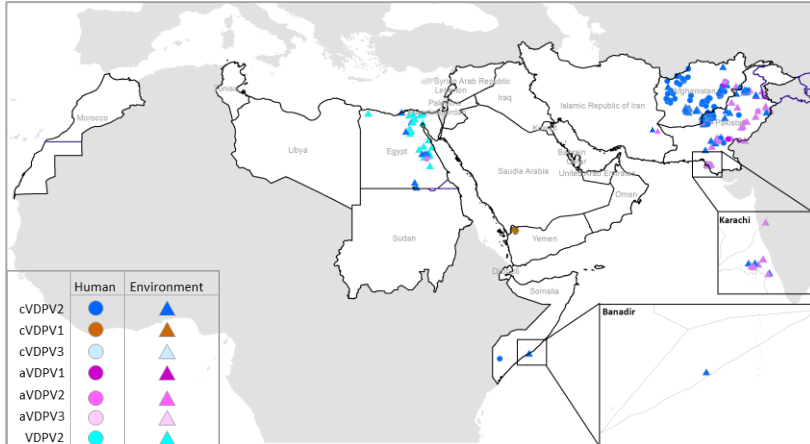
VDPVs isolations by Source and Country

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VDPV Isolates, EMR countries, 2020



VDPV Isolates, EMR countries, 2021



VDPVs isolated from 2016-2021

cVDPV Isolate type	EMR Country	Sources																											
		AFP cases(Human)						Contacts(Human)						Environment						Other Sources (Healthy Children)									
		2016	2017	2018	2019	2020	2021	Most recent	2016	2017	2018	2019	2020	2021	Most recent	2016	2017	2018	2019	2020	2021	Most recent	2016	2017	2018	2019	2020	2021	Most recent
cVDPV2	Afghanistan				307	43	09-07-21												174	40	23-06-21								
	Egypt																			10	08-06-21								
	Iran																		3	1	20-02-21								
	Pakistan	1			22	135	8	23-04-21								4			38	135	35	11-08-21							
	Somalia			6	3	14	1	12-05-21			3	1	11		10-11-20		2	19	5	26	1	23-05-21				1	5		22-09-20
	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
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		17-06-20								
	Pakistan																			1	10-02-21								
	Somalia					1		26-01-20																					
aVDPV2	Afghanistan	1			3	1	01-03-21					75	15	03-05-21					2	3	25-07-21								
	Egypt						1	30-05-21					1	14-06-21					1		21-09-21								
	Iran																			1	10-07-21								
	Pakistan				7	5	23-05-21				8	19	1	28-04-21	3	5		3	22	32	21-09-21								
	Somalia	1						24-10-16	1					30-10-16			2	1			03-02-19								
	Yemen	1						11-06-16	2					20-06-16															
aVDPV3	Afghanistan					1		23-06-20																					
	Egypt																		2		30-09-20								
	Pakistan																			1	05-04-21								
	Libya					1		15-01-20																					
VDPV2	Egypt														1					63	19-09-21								
	Pakistan														1						11-07-16								

Important links

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