

Supplementary Dataset S1. Human Virus Data Set. The 203 human viruses used here, including their taxonomic classification, genome type and segmentation, as well as descriptive features of each virus. Viruses that have been reported in less than ten cases are marked with double asterisk.

Species	Family	Genus	Baltimore Category	Transmission Mode	Genome Length (nt)	Genome Type	Duration of Infection	Mortality Rate (%)	Envelope Status	Segmentation	Recombination Frequency	Human-To-Human	Citation
Adeno-associated virus	Parvoviridae	Dependoparvovirus	Two	fecal-oral; respiratory	4679	DNA	chronic	0.00%	non-enveloped	non-segmented	high	yes	(1)
Aichi virus	Picornaviridae	Kobuvirus	Four	fecal-oral	8251	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Anajátuba virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12000	RNA	acute	0.00%	enveloped	segmented	high	no	
Andes virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12104	RNA	acute	30.00%	enveloped	segmented	high	yes	
Araraquara virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12000	RNA	acute	37.00%	enveloped	segmented	high	no	(2)
Australian bat lyssavirus**	Rhabdoviridae	Lyssavirus	Five	animal bite	11822	RNA	acute	100.00%	enveloped	non-segmented	low	no	(3)
Bagaza virus**	Flaviviridae	Flavivirus	Four	vector	10284	RNA	acute	0.00%	enveloped	non-segmented	low	no	(4)
Banna virus	Reoviridae	Seadornavirus	Three	vector	21000	RNA	acute	0.00%	non-enveloped	segmented	high	no	
Barmah forest virus	Togaviridae	Alphavirus	Four	vector	11488	RNA	acute	0.00%	enveloped	non-segmented	high	no	
Bas-Congo virus**	Rhabdoviridae	Unassigned	Five	unknown	11892	RNA	acute	67.00%	enveloped	non-segmented	low	yes	(5)
Bayou virus**	Bunyaviridae	Hantavirus	Five	direct/indirect contact	13175	RNA	acute	1.00%	enveloped	segmented	high	no	
Bhanja virus	Bunyaviridae	Phlebovirus	Five	vector	11511	RNA	acute	0.00%	enveloped	segmented	high	no	
BK polyomavirus	Polyomaviridae	Polyomavirus	One	bodily fluids	5130	DNA	chronic	0.00%	non-enveloped	non-segmented	high	yes	
Black creek canal virus**	Bunyaviridae	Hantavirus	Five	direct/indirect contact; respiratory	12000	RNA	acute	0.00%	enveloped	segmented	high	no	
Bufavirus**	Parvoviridae	Protoparvovirus	Two	fecal-oral	5200	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Bundibugyo ebolavirus	Filoviridae	Ebolavirus	Five	bodily fluids	18941	RNA	acute	34.00%	enveloped	non-segmented	low	yes	
Bunyamwera virus	Bunyaviridae	Orthobunyavirus	Five	vector	12294	RNA	acute	30.00%	enveloped	segmented	high	no	
Bunyavirus La Crosse	Bunyaviridae	Orthobunyavirus	Five	vector	12491	RNA	acute	1.00%	enveloped	segmented	high	no	
Bunyavirus snowshoe hare	Bunyaviridae	Orthobunyavirus	Five	vector	12208	RNA	acute	20.00%	enveloped	segmented	high	no	
Bwamba virus	Bunyaviridae	Orthobunyavirus	Five	vector	12582	RNA	acute	0.00%	enveloped	segmented	high	no	
California encephalitis virus	Bunyaviridae	Orthobunyavirus	Five	vector	12491	RNA	acute	0.10%	enveloped	segmented	high	no	
Candiru virus	Bunyaviridae	Phlebovirus	Five	vector	12495	RNA	acute	0.00%	enveloped	segmented	high	no	
Caraparu virus**	Bunyaviridae	Orthobunyavirus	Five	vector	12259	RNA	acute	0.00%	enveloped	segmented	high	no	
Chandipura virus	Rhabdoviridae	Vesiculovirus	Five	vector	11900	RNA	acute	52.00%	enveloped	non-segmented	low	no	(6)
Changuinola virus**	Reoviridae	Orbivirus	Three	vector	19771	RNA	acute	0.00%	non-enveloped	segmented	high	no	(7)
Chapare virus**	Arenaviridae	Arenavirus	Five	direct/indirect contact	10464	RNA	acute	30.00%	enveloped	segmented	high	no	(8)
Chikungunya virus	Togaviridae	Alphavirus	Four	vector	11826	RNA	acute	0.03%	enveloped	non-segmented	high	yes	
Choclo virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12195	RNA	acute	0.00%	enveloped	segmented	high	no	(9)
Colorado tick fever virus	Reoviridae	Coltivirus	Three	vector	18000	RNA	acute	0.00%	non-enveloped	segmented	high	no	
Cowpox virus	Poxviridae	Orthopoxvirus	One	direct/indirect contact	196858	DNA	acute	0.00%	enveloped	non-segmented	high	no	
Coxsackie B3	Picornaviridae	Enterovirus	Four	direct/indirect contact	7400	RNA	acute	5.00%	non-enveloped	non-segmented	high	yes	(10)
Coxsackievirus A16	Picornaviridae	Enterovirus	Four	fecal-oral	7413	RNA	acute	1.00%	non-enveloped	non-segmented	high	yes	
Crimean-Congo hemorrhagic fever virus	Bunyaviridae	Nairovirus	Five	vector	19201	RNA	acute	40.00%	enveloped	segmented	high	yes	(11)
Dengue virus	Flaviviridae	Flavivirus	Four	vector	10735	RNA	acute	1.00%	enveloped	non-segmented	low	yes	
Dhori virus**	Orthomyxoviridae	Thogotovirus	Five	vector	11119	RNA	acute	1.00%	enveloped	segmented	high	no	
Dobrava-Belgrade virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	11851	RNA	acute	12.00%	enveloped	segmented	high	no	(12)
Dugbe virus	Bunyaviridae	Nairovirus	Five	vector	18859	RNA	acute	20.00%	enveloped	segmented	high	no	
Duvenhage virus**	Rhabdoviridae	Lyssavirus	Five	animal bite	11977	RNA	acute	100.00%	enveloped	non-segmented	low	no	(13)
Eastern equine encephalitis virus	Togaviridae	Alphavirus	Four	vector	11675	RNA	acute	30.00%	enveloped	non-segmented	high	no	(14)
Ebola virus	Filoviridae	Ebolavirus	Five	bodily fluids	18959	RNA	acute	50.00%	enveloped	non-segmented	low	yes	(15)
Echovirus	Picornaviridae	Enterovirus	Four	fecal-oral	7348	RNA	acute	0.30%	non-enveloped	non-segmented	high	yes	
Encephalomyocarditis virus	Picornaviridae	Cardiovirus	Four	direct/indirect contact	7800	RNA	acute	0.00%	non-enveloped	non-segmented	high	no	(16)
Enterovirus A71	Picornaviridae	Enterovirus	Four	direct/indirect contact	7413	RNA	acute	5.00%	non-enveloped	non-segmented	high	yes	(17)

Enterovirus D68	Picornaviridae	Enterovirus	Four	direct/indirect contact; respiratory	7390	RNA	acute	1.00%	non-enveloped	non-segmented	high	yes	(18)
Epstein-Barr virus	Herpesviridae	Lymphocryptovirus	One	bodily fluids	171823	DNA	acute	0.00%	enveloped	non-segmented	high	yes	
European bat lyssavirus	Rhabdoviridae	Lyssavirus	Five	animal bite	11966	RNA	acute	100.00%	enveloped	non-segmented	low	no	
Everglades virus	Togaviridae	Alphavirus	Four	vector	11395	RNA	acute	0.00%	enveloped	non-segmented	high	no	
Granada virus	Bunyaviridae	Phlebovirus	Five	vector	15000	RNA	acute	0.00%	enveloped	segmented	high	no	
Guanarito virus	Arenaviridae	Arenavirus	Five	direct/indirect contact; respiratory	10424	RNA	acute	30.00%	enveloped	segmented	high	no	(19)
Guaroa virus	Bunyaviridae	Orthobunyavirus	Five	vector	12239	RNA	acute	0.00%	enveloped	segmented	high	no	
Hantaan virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	11847	RNA	acute	10.00%	enveloped	segmented	high	no	
Heartland virus	Bunyaviridae	Phlebovirus	Five	vector	11567	RNA	acute	0.00%	enveloped	segmented	high	no	
Hendra virus	Paramyxoviridae	Henipavirus	Five	bodily fluids	18234	RNA	acute	50.00%	enveloped	non-segmented	low	no	
Hepatitis A virus	Picornaviridae	Hepatovirus	Four	fecal-oral	7478	RNA	acute	1.00%	non-enveloped	non-segmented	high	yes	(20)
Hepatitis B virus	Hepadnaviridae	Orthohepadnavirus	Seven	blood; sexual	3215	DNA	chronic	0.40%	enveloped	non-segmented	high	yes	
Hepatitis C virus	Flaviviridae	Hepacivirus	Four	blood; sexual	9646	RNA	chronic	14.00%	enveloped	non-segmented	low	yes	
Hepatitis delta virus	Deltavirus	Deltavirus	Five	blood; sexual	1682	RNA	chronic	10.00%	enveloped	non-segmented	high	yes	
Hepatitis E virus	Hepeviridae	Hepevirus	Four	fecal-oral	7176	RNA	acute	2.00%	non-enveloped	non-segmented	high	yes	
Herpes B	Herpesviridae	Lymphocryptovirus	One	animal bite	150715	DNA	acute	80.00%	enveloped	non-segmented	high	no	(22)
Highlands J virus**	Togaviridae	Alphavirus	Four	vector	11526	RNA	acute	0.00%	enveloped	non-segmented	high	no	
Human adenovirus C	Adenoviridae	Mastadenovirus	One	fecal-oral; respiratory	35937	DNA	chronic	5.00%	non-enveloped	non-segmented	high	yes	
Human astrovirus	Astroviridae	Avastrovirus	Four	fecal-oral	7003	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human bocavirus	Parvoviridae	Bocaparvovirus	Two	direct/indirect contact; respiratory	5299	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human coronavirus 229E	Coronaviridae	Alphacoronavirus	Four	respiratory	27317	RNA	acute	5.00%	enveloped	non-segmented	high	yes	(23)
Human coronavirus HKU1	Coronaviridae	Betacoronavirus	Four	respiratory	29,934	RNA	acute	1.00%	enveloped	non-segmented	high	yes	
Human coronavirus NL63	Coronaviridae	Betacoronavirus	Four	respiratory	27410	RNA	acute	1.00%	enveloped	non-segmented	high	yes	
Human coronavirus OC43	Coronaviridae	Betacoronavirus	Four	respiratory	30578	RNA	acute	0.01%	enveloped	non-segmented	high	yes	
Human cosavirus A	Picornaviridae	Cosavirus	Four	fecal-oral	7632	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human cosavirus B	Picornaviridae	Cosavirus	Four	fecal-oral	7205	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	(25)
Human cosavirus C	Picornaviridae	Cosavirus	Four	fecal-oral	7200	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human cosavirus D	Picornaviridae	Cosavirus	Four	fecal-oral	7215	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human cosavirus E1	Picornaviridae	Cosavirus	Four	fecal-oral	6,580	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human cosavirus F	Picornaviridae	Cosavirus	Four	fecal-oral	6656	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human cytomegalovirus	Herpesviridae	Cytomegalovirus	One	bodily fluids	229354	DNA	chronic	0.01%	enveloped	non-segmented	high	yes	(26)
Human herpesvirus 1	Herpesviridae	Simplexvirus	One	bodily fluids; sexual	152261	DNA	chronic	0.00%	enveloped	non-segmented	high	yes	
Human herpesvirus 2	Herpesviridae	Simplexvirus	One	sexual	117505	DNA	chronic	0.00%	enveloped	non-segmented	high	yes	
Human herpesvirus 6A	Herpesviridae	Roseolovirus	One	direct/indirect contact; respiratory	159322	DNA	chronic	0.00%	enveloped	non-segmented	high	yes	
Human herpesvirus 6B	Herpesviridae	Roseolovirus	One	direct/indirect contact; respiratory	162114	DNA	chronic	0.00%	enveloped	non-segmented	high	yes	
Human herpesvirus 7	Herpesviridae	Roseolovirus	One	direct/indirect contact	153080	DNA	chronic	0.00%	enveloped	non-segmented	high	yes	(27)
Human herpesvirus 8	Herpesviridae	Rhadinovirus	One	bodily fluids; sexual	137969	DNA	chronic	2.50%	enveloped	non-segmented	high	yes	
Human immunodeficiency virus type 1	Retroviridae	Lentivirus	Six	blood; sexual	9181	RNA	chronic	80.00%	enveloped	non-segmented	high	yes	
Human immunodeficiency virus type 2	Retroviridae	Lentivirus	Six	blood; sexual	10271	RNA	chronic	20.00%	enveloped	non-segmented	high	yes	
Human metapneumovirus	Paramyxoviridae	Metapneumovirus	Five	direct/indirect contact	13251	RNA	acute	0.01%	enveloped	non-segmented	low	yes	
Human papillomavirus 16	Papillomaviridae	Alphapapillomavirus	One	direct/indirect contact; sexual	7906	DNA	chronic	0.50%	non-enveloped	non-segmented	high	yes	(26)
Human papillomavirus 18	Papillomaviridae	Alphapapillomavirus	One	direct/indirect contact; sexual	7843	DNA	chronic	0.50%	non-enveloped	non-segmented	high	yes	
Human papillomavirus 32	Papillomaviridae	Alphapapillomavirus	One	direct/indirect contact; sexual	7961	DNA	chronic	0.01%	non-enveloped	non-segmented	high	yes	
Human papillomavirus 5	Papillomaviridae	Betapapillomavirus	One	direct/indirect contact	7757	DNA	chronic	0.01%	non-enveloped	non-segmented	high	yes	
Human papillomavirus 9	Papillomaviridae	Betapapillomavirus	One	direct/indirect contact	7400	DNA	chronic	0.01%	non-enveloped	non-segmented	high	yes	
Human parainfluenza virus 1	Paramyxoviridae	Respirovirus	Five	respiratory	15504	RNA	acute	2.00%	enveloped	non-segmented	low	yes	(27)
Human parainfluenza virus 2	Paramyxoviridae	Rubulavirus	Five	respiratory	15654	RNA	acute	1.00%	enveloped	non-segmented	low	yes	
Human parainfluenza virus 3	Paramyxoviridae	Respirovirus	Five	respiratory	15405	RNA	acute	2.00%	enveloped	non-segmented	low	yes	

Human parainfluenza virus 4	Paramyxoviridae	Rubulavirus	Five	respiratory	17091	RNA	acute	1.00%	enveloped	non-segmented	low	yes	
Human parainfluenza virus 5	Paramyxoviridae	Rubulavirus	Five	respiratory	15246	RNA	acute	0.00%	enveloped	non-segmented	low	yes	
Human parechovirus	Picornaviridae	Parechovirus	Four	fecal-oral	9392	RNA	acute	5.00%	non-enveloped	non-segmented	high	yes	
Human parvovirus 4	Parvoviridae	Parvovirus	Two	unknown	5,268	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human parvovirus B19	Parvoviridae	Erythroparvovirus	Two	respiratory	5596	DNA	acute	10.00%	non-enveloped	non-segmented	high	yes	(28)
Human pegivirus	Flaviviridae	Pegivirus	Four	blood; sexual	9259	RNA	chronic	0.00%	enveloped	non-segmented	low	yes	
Human picobirnavirus	Picobirnaviridae	Picobirnavirus	Three	fecal-oral	4000	RNA	acute	0.00%	non-enveloped	segmented	high	yes	
Human polyomavirus 10	Polyomaviridae	Polyomavirus	One	fecal-oral	4939	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human polyomavirus 12	Polyomaviridae	Polyomavirus	One	fecal-oral	5033	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human respiratory syncytial virus	Paramyxoviridae	Pneumovirus	Five	direct/indirect contact; respiratory	15128	RNA	acute	2.00%	enveloped	non-segmented	low	yes	
Human rhinovirus A	Picornaviridae	Enterovirus	Four	respiratory	7152	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human rhinovirus B	Picornaviridae	Enterovirus	Four	respiratory	6900	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human rhinovirus C	Picornaviridae	Enterovirus	Four	respiratory	7000	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Human T-lymphotropic virus	Retroviridae	Deltaretrovirus	Six	blood; sexual	8507	RNA	chronic	0.00%	enveloped	non-segmented	high	yes	
Human torovirus	Coronaviridae	Torovirus	Four	fecal-oral	11161	RNA	acute	0.00%	enveloped	non-segmented	high	yes	
Ilheus virus**	Flaviviridae	Flavivirus	Four	vector	10759	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Influenza A H3N2 virus	Orthomyxoviridae	Influenzavirus A	Five	respiratory	13588	RNA	acute	0.10%	enveloped	segmented	high	yes	
Influenza A H5N1 virus	Orthomyxoviridae	Influenzavirus A	Five	respiratory	13500	RNA	acute	60.00%	enveloped	segmented	high	no	(29)
Influenza A H7N9 virus	Orthomyxoviridae	Influenzavirus A	Five	respiratory	13500	RNA	acute	20.00%	enveloped	segmented	high	no	(30)
Influenza B virus	Orthomyxoviridae	Influenzavirus B	Five	respiratory	14548	RNA	acute	0.10%	enveloped	segmented	high	yes	
Influenza C virus	Orthomyxoviridae	Influenzavirus C	Five	respiratory	14600	RNA	acute	0.00%	enveloped	segmented	high	yes	
Japanese encephalitis virus	Flaviviridae	Flavivirus	Four	vector	10976	RNA	acute	30.00%	enveloped	non-segmented	low	no	(31)
JC polyomavirus	Polyomaviridae	Polyomavirus	One	fecal-oral	5040	DNA	chronic	0.00%	non-enveloped	non-segmented	high	yes	
Junin virus	Arenaviridae	Arenavirus	Five	direct/indirect contact	10524	RNA	acute	25.00%	enveloped	segmented	high	no	
Kairi virus**	Bunyaviridae	Orthobunyavirus	Five	vector	12000	RNA	acute	0.00%	enveloped	segmented	high	no	(32)
KI polyomavirus	Polyomaviridae	Polyomavirus	One	fecal-oral	5229	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Kokobera virus	Flaviviridae	Flavivirus	Four	vector	10874	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Kyasanur forest disease virus	Flaviviridae	Flavivirus	Four	vector	10694	RNA	acute	5.00%	enveloped	non-segmented	low	no	
Lake Victoria marburgvirus	Filoviridae	Marburgvirus	Five	bodily fluids	19111	RNA	acute	57.00%	enveloped	non-segmented	low	no	
Langat virus**	Flaviviridae	Flavivirus	Four	vector	10943	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Lassa virus	Arenaviridae	Arenavirus	Five	direct/indirect contact; respiratory	10824	RNA	acute	1.00%	enveloped	segmented	high	yes	(33)
Lordsdale virus	Caliciviridae	Norovirus	Four	fecal-oral	7555	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Louping ill virus	Flaviviridae	Flavivirus	Four	vector	10871	RNA	acute	15.00%	enveloped	non-segmented	low	no	
Lujo virus**	Arenaviridae	Arenavirus	Five	direct/indirect contact; respiratory	10352	RNA	acute	80.00%	enveloped	segmented	high	yes	(34)
Lymphocytic choriomeningitis virus	Arenaviridae	Arenavirus	Five	direct/indirect contact	10593	RNA	acute	1.00%	enveloped	segmented	high	no	
Machupo virus	Arenaviridae	Arenavirus	Five	direct/indirect contact; respiratory	10562	RNA	acute	30.00%	enveloped	segmented	high	yes	(35)
Mamastrovirus 1	Astroviridae	Mamastrovirus	Four	fecal-oral	6673	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Mammalian orthoreovirus	Reoviridae	Orthoreovirus	Three	fecal-oral; respiratory	18000	RNA	acute	0.00%	non-enveloped	segmented	high	yes	
Marituba virus	Bunyaviridae	Orthobunyavirus	Five	vector	12599	RNA	acute	0.00%	enveloped	segmented	high	no	
Mayaro virus	Togaviridae	Alphavirus	Four	vector	11411	RNA	acute	0.00%	enveloped	non-segmented	high	no	
Measles virus	Paramyxoviridae	Morbillivirus	Five	respiratory	15894	RNA	acute	0.10%	enveloped	non-segmented	low	yes	
Menangle virus**	Paramyxoviridae	Rubulavirus	Five	direct/indirect contact	15516	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Merkel cell polyomavirus	Polyomaviridae	Orthopolyomavirus	One	unknown	5400	DNA	chronic	0.01%	non-enveloped	non-segmented	high	yes	
Middle East respiratory syndrome	Coronaviridae	Betacoronavirus	Four	direct/indirect contact	30063	RNA	acute	36.00%	enveloped	non-segmented	high	yes	(36)
Mokola virus**	Rhabdoviridae	Lyssavirus	Five	animal bite	11940	RNA	acute	100.00%	enveloped	non-segmented	low	no	
Molluscum contagiosum virus 1	Poxviridae	Molluscipoxvirus	One	direct/indirect contact	190289	DNA	chronic	0.00%	enveloped	non-segmented	high	yes	
Monkeypox virus	Poxviridae	Orthopoxvirus	One	direct/indirect contact	194711	DNA	acute	10.00%	enveloped	non-segmented	high	yes	(37)
Mumps virus	Paramyxoviridae	Rubulavirus	Five	bodily fluids; respiratory	15384	RNA	acute	1.00%	enveloped	non-segmented	low	yes	
Murray Valley encephalitis virus	Flaviviridae	Flavivirus	Four	vector	11014	RNA	acute	20.00%	enveloped	non-segmented	low	no	(38)
MX polymavirus	Polyomaviridae	Polyomavirus	One	fecal-oral	5000	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	

New York virus**	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12000	RNA	acute	0.00%	enveloped	segmented	high	no	(39)
Newcastle disease virus	Paramyxoviridae	Avulavirus	Five	direct/indirect contact	15192	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Nipah virus	Paramyxoviridae	Henipavirus	Five	animal bite; direct/indirect contact fecal-oral	18246	RNA	acute	40.00%	enveloped	non-segmented	low	yes	(39)
Norovirus	Caliciviridae	Norovirus	Four	vector	7654	RNA	acute	0.01%	non-enveloped	non-segmented	high	yes	(40)
Ntaya virus	Flaviviridae	Flavivirus	Four	vector	10943	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Nyando virus	Bunyaviridae	Orthobunyavirus	Five	vector	12375	RNA	acute	0.00%	enveloped	segmented	high	no	(41)
O'nyong-nyong virus	Togaviridae	Alphavirus	Four	vector	11835	RNA	acute	0.00%	enveloped	non-segmented	high	yes	(42)
Omsk haemorrhagic fever virus	Flaviviridae	Flavivirus	Four	vector	10694	RNA	acute	2%	enveloped	non-segmented	low	no	
Orf virus	Poxviridae	Parapoxvirus	One	direct/indirect contact	139962	DNA	acute	1.00%	enveloped	non-segmented	high	no	(43)
Oropouche virus	Bunyaviridae	Orthobunyavirus	Five	vector	12183	RNA	acute	0.00%	enveloped	segmented	high	no	
Orungo virus	Reoviridae	Orbivirus	Three	vector	18000	RNA	acute	0.00%	non-enveloped	segmented	high	no	(44)
Poliovirus	Picornaviridae	Enterovirus	Four	fecal-oral	7440	RNA	acute	0.90%	non-enveloped	non-segmented	high	yes	
Powassan virus	Flaviviridae	Flavivirus	Four	vector	10839	RNA	acute	10.00%	enveloped	non-segmented	low	no	(45)
Puumala virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12058	RNA	acute	1.00%	enveloped	segmented	high	yes	
Quaranfil virus	Orthomyxoviridae	Quarantavirus	Five	vector	14000	RNA	acute	0.00%	enveloped	segmented	high	no	(46)
Rabies virus	Rhabdoviridae	Lyssavirus	Five	animal bite	11932	RNA	acute	100.00%	enveloped	non-segmented	low	no	
Rift valley fever virus	Bunyaviridae	Phlebovirus	Five	vector	11980	RNA	acute	1.00%	enveloped	segmented	high	no	(47)
Rosavirus 2	Picornaviridae	Rosavirus	Four	direct/indirect contact	8931	RNA	acute	0.00%	non-enveloped	non-segmented	high	no	
Ross river virus	Togaviridae	Alphavirus	Four	vector	11657	RNA	acute	1.00%	enveloped	non-segmented	high	yes	(48)
Rotavirus A	Reoviridae	Rotavirus	Three	fecal-oral	18601	RNA	acute	1.00%	non-enveloped	segmented	high	yes	
Rotavirus B	Reoviridae	Rotavirus	Three	fecal-oral	18602	RNA	acute	1.00%	non-enveloped	segmented	high	yes	(49)
Rotavirus C	Reoviridae	Rotavirus	Three	fecal-oral	17910	RNA	acute	0.00%	non-enveloped	segmented	high	no	
Rubella virus	Togaviridae	Rubivirus	Four	respiratory	15384	RNA	acute	0.25%	enveloped	non-segmented	high	yes	(50)
Saaremaa virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12000	RNA	acute	0.00%	enveloped	segmented	high	no	
Sabia virus**	Arenaviridae	Arenavirus	Five	direct/indirect contact	10499	RNA	acute	30%	enveloped	segmented	high	yes	(51)
Saffold virus	Picornaviridae	Cardiovirus	Four	direct/indirect contact	8115	RNA	acute	0.00%	non-enveloped	non-segmented	high	no	
Sagiyama virus	Togaviridae	Alphavirus	Four	vector	11698	RNA	acute	0.00%	enveloped	non-segmented	high	no	(52)
Sandfly fever sicilian virus	Bunyaviridae	Phlebovirus	Five	vector	11494	RNA	acute	1.00%	enveloped	segmented	high	no	
Sapporo virus	Caliciviridae	Sapovirus	Four	fecal-oral	7521	RNA	acute	0.00%	non-enveloped	non-segmented	high	yes	(53)
SARS coronavirus	Coronaviridae	Betacoronavirus	Four	respiratory	29751	RNA	acute	11.00%	enveloped	non-segmented	high	yes	
Semliki Forest virus	Togaviridae	Alphavirus	Four	vector	11442	RNA	acute	0.00%	enveloped	non-segmented	high	no	(54)
Seoul virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	11904	RNA	acute	1.00%	enveloped	segmented	high	no	
Severe fever with thrombocytopenia syndrome virus	Bunyaviridae	Phlebovirus	Five	vector	11490	RNA	acute	15.00%	enveloped	segmented	high	no	(55)
Simian foamy virus	Retroviridae	Spumavirus	Six	direct/indirect contact	11764	RNA	chronic	0.00%	enveloped	non-segmented	high	no	
Sin Nombre virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12318	RNA	acute	35%	enveloped	segmented	high	no	(56)
Sindbis virus	Togaviridae	Alphavirus	Four	vector	11703	RNA	acute	0.00%	enveloped	non-segmented	high	no	
St. Louis encephalitis virus	Flaviviridae	Flavivirus	Four	vector	10940	RNA	acute	20.00%	enveloped	non-segmented	low	no	(57)
STL polyomavirus	Polyomaviridae	Polyomavirus	One	fecal-oral	5000	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Syr-Darya Valley fever virus**	Picornaviridae	Cardiovirus	Four	vector	7800	RNA	acute	0.00%	non-enveloped	non-segmented	high	no	(58)
Tacaiuma virus**	Bunyaviridae	Orthobunyavirus	Five	vector	12000	RNA	acute	0.00%	enveloped	segmented	high	no	
Tanapox virus	Poxviridae	Yatapoxvirus	One	vector	144565	DNA	acute	0.00%	enveloped	non-segmented	high	no	(59)
Tembusu virus	Flaviviridae	Flavivirus	Four	vector	10990	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Thogoto virus**	Orthomyxoviridae	Thogotovirus	Five	vector	14000	RNA	acute	0.00%	enveloped	segmented	high	no	(60)
Tick-borne encephalitis virus	Flaviviridae	Flavivirus	Four	vector	11141	RNA	acute	5.00%	enveloped	non-segmented	low	no	
Tonate virus	Togaviridae	Alphavirus	Four	vector	11000	RNA	acute	1.00%	enveloped	non-segmented	high	no	(61)
Torque teno virus 1	Anelloviridae	Alphatorquevirus	Two	blood; sexual	3852	DNA	chronic	0.00%	non-enveloped	non-segmented	high	yes	
Toscana virus	Bunyaviridae	Phlebovirus	Five	vector	12488	RNA	acute	1.00%	enveloped	segmented	high	no	(62)
Tula virus	Bunyaviridae	Hantavirus	Five	direct/indirect contact	12066	RNA	acute	0.00%	enveloped	segmented	high	no	
Una virus**	Togaviridae	Alphavirus	Four	vector	11964	RNA	acute	0.00%	enveloped	non-segmented	high	no	(63)
Usutu virus**	Flaviviridae	Flavivirus	Four	vector	11064	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Uukuniemi virus**	Bunyaviridae	Phlebovirus	Five	vector	15225	RNA	acute	0.00%	enveloped	segmented	high	no	(64)

Variola major virus	Poxviridae	Orthopoxvirus	One	direct/indirect contact	186103	DNA	acute	30%	enveloped	non-segmented	high	yes	
Venezuelan equine encephalitis virus	Togaviridae	Alphavirus	Four	vector	11495	RNA	acute	4%	enveloped	non-segmented	high	no	
Vesicular stomatitis Alagoas virus	Rhabdoviridae	Vesiculovirus	Five	vector	11900	RNA	acute	0.00%	enveloped	non-segmented	low	no	
Vilyuisk human encephalitis virus	Picornaviridae	Cardiovirus	Four	direct/indirect contact	7800	RNA	acute	15.00%	non-enveloped	non-segmented	high	no	
Wesselsbron virus	Flaviviridae	Flavivirus	Four	vector	10814	RNA	acute	0.00%	enveloped	non-segmented	low	no	
West Nile virus	Flaviviridae	Flavivirus	Four	vector	10962	RNA	acute	15.00%	enveloped	non-segmented	low	no	(48)
Western equine encephalitis virus	Togaviridae	Alphavirus	Four	vector	11476	RNA	acute	4%	enveloped	non-segmented	high	no	
WU Polyomavirus	Polyomaviridae	Polyomavirus	One	respiratory; bodily fluids	5228	DNA	acute	0.00%	non-enveloped	non-segmented	high	yes	
Yaba monkey tumor virus	Poxviridae	Yatapoxvirus	One	vector	144565	DNA	acute	0.00%	enveloped	non-segmented	high	no	
Yellow fever virus	Flaviviridae	Flavivirus	Four	vector	10862	RNA	acute	50.00%	enveloped	non-segmented	low	yes	(49)
Zika virus	Flaviviridae	Flavivirus	Four	vector; sexual	10794	RNA	acute	0.00%	enveloped	non-segmented	low	yes	

**Viruses for which there have been fewer than ten reported cases.

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