

Figure 1

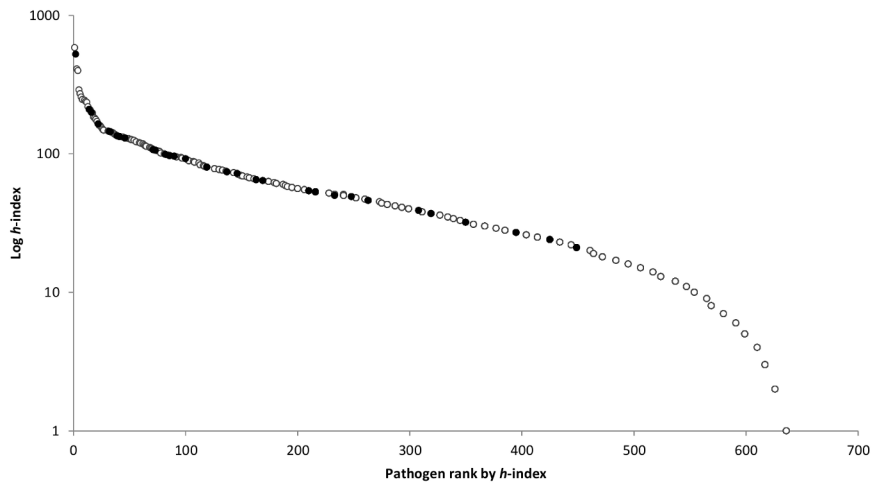


Figure 2

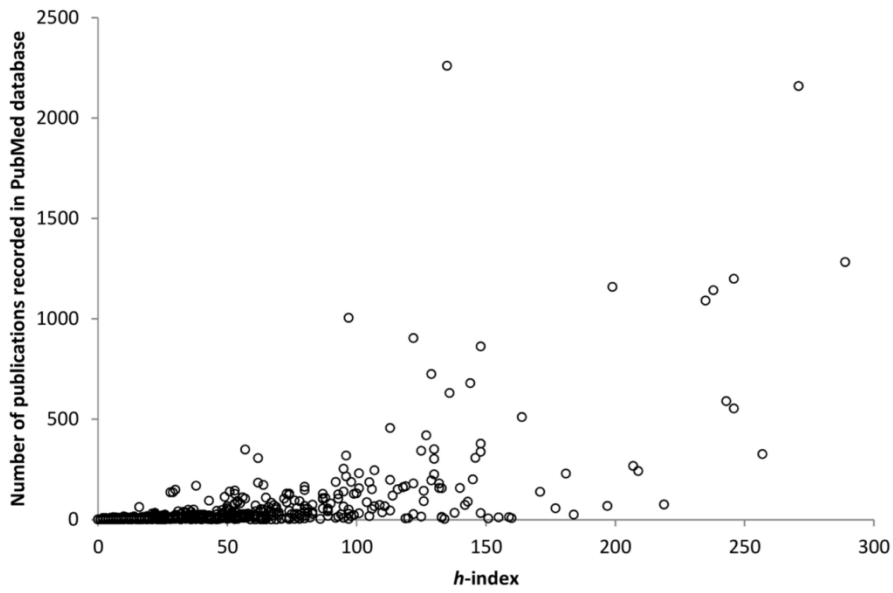


Figure 3

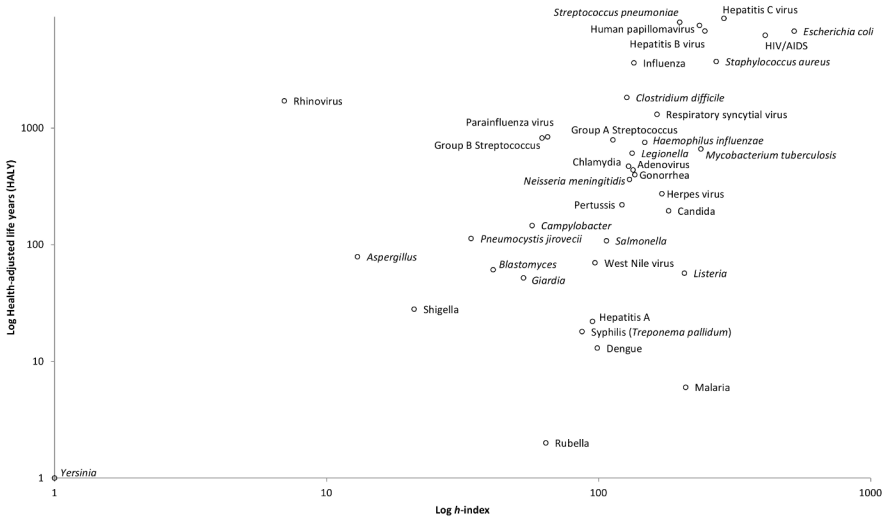


Figure 4

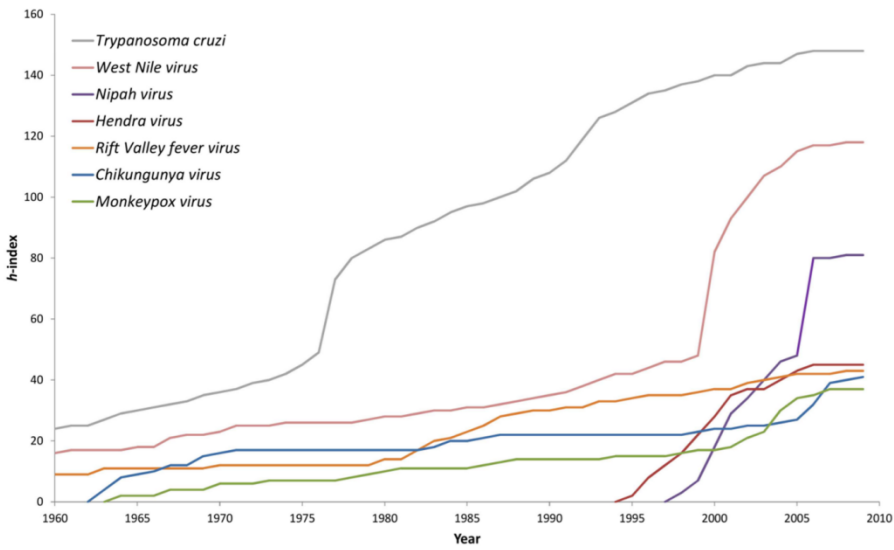


Figure 5a

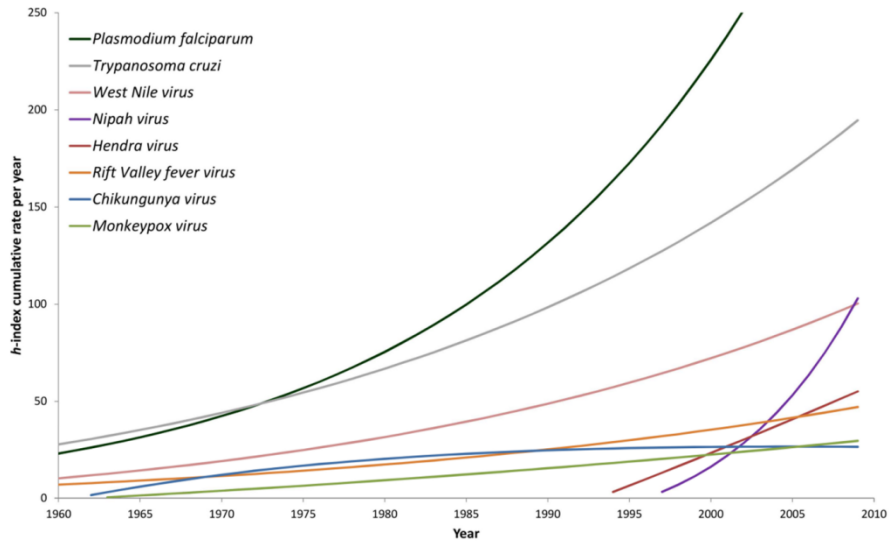


Figure 5b

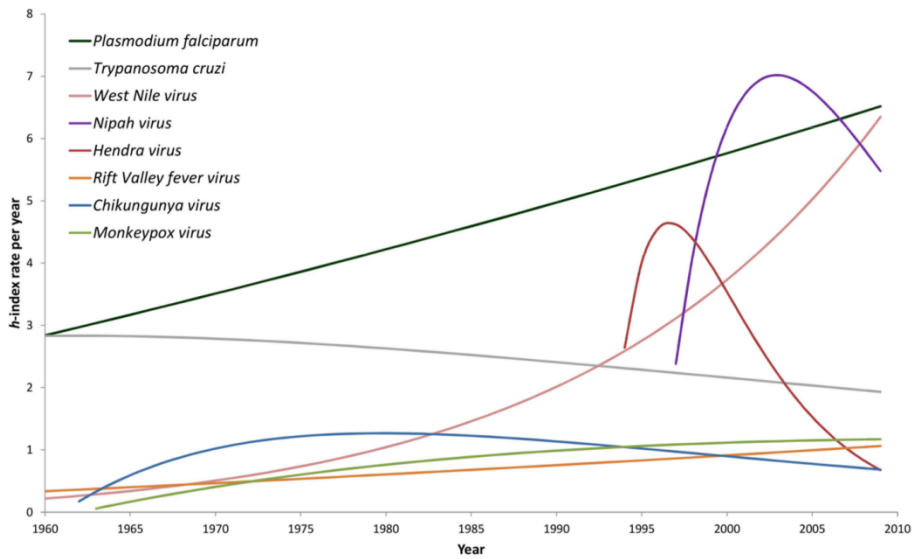


Table 1 Taxonomic classification of 651 human pathogen species that have been recorded in the North American region.

Group	%
Bacteria	42.2
Fungi	21.2
Viruses or prions	16.0
Helminths	12.0
Protozoa	6.6
Ectoparasites – mites, flies, fleas, lice, ticks.	2.0

Table 2 Pathogen species with the highest *h*-index recorded in Web of Science from those human pathogen species recorded in the North American region. All were classed as frequently pathogenic.

Pathogen species	<i>h</i> -index	Taxonomic group	Emerging Yes/No	Zoonotic Y/N
<i>Saccharomyces cerevisiae</i>	584	Fungi	N	N
<i>Escherichia coli</i>	524	Bacteria	Y	Y
<i>Human immunodeficiency virus 1</i>	410	Virus	Y	N
<i>Human immunodeficiency virus 2</i>	399	Virus	Y	N
<i>Hepatitis C virus</i>	289	Virus	Y	N
<i>Staphylococcus aureus</i>	271	Bacteria	Y	Y
<i>Human herpesvirus 4</i>	257	Virus	N	N
<i>Helicobacter pylori</i>	246	Bacteria	N	Y
<i>Hepatitis B virus</i>	246	Virus	Y	N
<i>Pseudomonas aeruginosa</i>	243	Bacteria	Y	Y
<i>Mycobacterium tuberculosis</i>	238	Bacteria	Y	Y
<i>Human papillomavirus</i>	235	Virus	Y	N
<i>Bacillus subtilis</i>	219	Bacteria	N	Y
<i>Plasmodium falciparum</i>	209	Protozoa	Y	N
<i>Listeria monocytogenes</i>	207	Bacteria	Y	Y

Table 3 Summary of *h*-index values for human pathogen species that have been recorded in the North American region, grouped according to emerging, zoonotic and pathogenic status.

A total of 651 human pathogen species were recorded in the North American region, however not all had been assigned a status for each characteristic.

Pathogen status		N	Median <i>h</i> -index	<i>h</i> -index range
<i>Emerging</i>	Yes	121	87	3-524
	No	341	31	1-584
	Total	462		
<i>Zoonotic</i>	Yes	315	43	2-524
	No	149	40	1-584
	Total	464		
<i>Pathogenic</i>	Yes	568	39.5	0-584
	No	70	16.5	1-155
	Unknown	13	13	0-43
	Total	651		

Table 4 The *h*-index of 33 pathogens that have been identified as an emergence risk in Canada by Greer et al (2008).

Pathogen names in grey indicate a pathogen that can cause the associated disease, but that is not commonly the main cause of the disease in the North American region.

Disease / pathogen	<i>h</i> -index	Mode of transmission*	Taxonomic group	Is this a zoonotic pathogen? (Yes/No)	Is this an emerging pathogen? (Yes/No)	Number of North American countries where the pathogen has been recorded, in the NCBI Nucleotide database	Number of papers published that record the pathogen and the North American search terms in PubMed
<i>Escherichia coli</i>	524	FWB	Bacteria	Y	Y	3	2500
Malaria							
<i>Plasmodium falciparum</i>	209	VB	Protozoa	N	Y	0	241
<i>Plasmodium vivax</i>	80	VB	Protozoa	N	Y	1	146
<i>Plasmodium knowlesi</i>	64	VB	Protozoa	Y	N	0	3
<i>Plasmodium malariae</i>	32	VB	Protozoa	Y	N	0	27
<i>Plasmodium ovale</i>	24	VB	Protozoa	N	N	0	9
<i>Streptococcus pneumoniae</i>	199	AB	Bacteria	Y	Y	1	1158
Respiratory syncytial virus	164	AB	Virus	Y	N	1	509
Cholera - <i>Vibrio cholerae</i>	145	FWB	Bacteria	N	Y	2	199
Lyme disease							
<i>Borrelia burgdorferi</i>	144	VB	Bacteria	Y	Y	1	679
<i>Borrelia garinii</i>	49	VB	Bacteria	Y	Y	1	9
<i>Borrelia afzelii</i>	46	VB	Bacteria	Y	Y	0	8
Influenza virus	135	AB	Virus	Y	Y	0	2259
Legionellosis - <i>Legionella pneumophila</i>	133	FWB	Bacteria	N	Y	2	155
Campylobacter							
<i>Campylobacter jejuni</i>	130	FWB	Bacteria	Y	Y	1	224
<i>Campylobacter coli</i>	65	FWB	Bacteria	Y	Y	2	46
Salmonellosis - <i>Salmonella enterica</i>	107	FWB	Bacteria	Y	Y	1	245
<i>Clostridium botulinum</i>	106	FWB	Bacteria	Y	Y	1	150
Dengue fever - <i>Dengue fever virus</i>	99	VB	Virus	Y	Y	1	128
West Nile virus	97	VB	Virus	Y	Y	3	1004
Rabies - <i>Rabies virus</i>	96	VB	Virus	Y	Y	4	318
Cryptosporidiosis							
<i>Cryptosporidium parvum</i>	92	FWB	Protozoa	Y	Y	3	187
<i>Cryptosporidium hominis</i>	27	FWB	Protozoa	Y		3	8
Shigella							
<i>Shigella dysenteriae</i>	80	FWB	Bacteria	Y	Y	0	52
<i>Shigella flexneri</i>	72	FWB	Bacteria	Y	N	1	72
<i>Shigella sonnei</i>	53	FWB	Bacteria	Y	N	1	144
<i>Shigella boydii</i>	21	FWB	Bacteria	Y	N	0	16
Tularemia - <i>Francisella tularensis</i>	74	VB	Bacteria	Y	Y	1	123
<i>Coccidioides immitis</i>	54	AB	Fungus	Y	Y	1	87
Giardiasis - <i>Giardia intestinalis</i>	53	FWB	Protozoa	Y	N	3	74
Blastomycosis - <i>Blastomyces dermatitidis</i>	50	AB	Fungus	N	?	1	66
Chikungunya - <i>Chikungunya virus</i>	39	VB	Virus	Y	Y	1	23
<i>Cryptococcus gattii</i>	37	AB	Fungus	N	Y	3	49

Table 5 The *h*-index of six pathogens that have been identified as pathogens of emergence concern in Canada by the Public Health Agency of Canada (N. Ogden *pers comm.*).

Disease / pathogen	<i>h</i> -index	Mode of transmission*	Taxonomic group	Is this a zoonotic pathogen? (Yes/No)	Is this an emerging pathogen? (Yes/No)	Number of North American countries where the pathogen has been recorded, in the Nucleotide database	Number of papers published that record the pathogen and the North American search terms in PubMed
Chagas disease - <i>Trypanosoma cruzii</i>	130	VB	Protozoa	Y	Y	1	302
<i>Nipah virus</i>	51	DIC (?)	Virus	Y	Y	0	4
<i>Hendra virus</i>	43	DIC (?)	Virus	Y	Y	0	1
Rift Valley Fever - <i>Rift Valley fever virus</i>	41	DIC	Virus	Y	Y	0	4
Chikungunya - <i>Chikungunya virus</i>	39	VB	Virus	Y	Y	1	23
Monkeypox - <i>Monkeypox virus</i>	35	DIC / AB	Virus	Y	Y	1	48

*Mode of transmission: Vector-borne (VB), Food and water borne (FWB), Air borne (AB) and Direct or indirect contact (DIC). A question mark (?) indicates some uncertainty about the mode of transmission of the pathogen.