SUPPLEMENTARY INFORMATION

# Jones *et al*. Global trends in emerging infectious diseases

## Supplementary Information

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**1.1. Supplementary Table 1**.

| Pathogen responsible for each EID event | Year | PathType | TranType | ZooType | DrugRes | TranMode | Driver | Location | Sources |
|---|---|---|---|---|---|---|---|---|---|
| Acinetobacter baumannii gentamycin-res | 1993 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | Australia (Sir Charles Gairdner Hospital, Perth) | [75][76][77][138][512] |
| Acinetobacter baumannii imipenem-res | 1985 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | UK (Edinburgh Royal Infirmary Ecosse, Edinburgh) | [29][75][77][459] |
| Acinetobacter baumannii multiple drug-res | 1998 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | Taiwan (National Taiwan University Hospital, T'ai-pei) | [75][77][278] |
| Acinetobacter baumannii polymixin-res | 2001 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (New York Hospital Medical Center of Queens, New York) | [75][77][631] |
| Alkhurma virus | 1995 | virus | 1 | 1 | 0 | 1 | International travel & commerce | Saudi Arabia (Jiddah) | [235][680] |
| Andes virus | 1995 | virus | 1 | 2 | 0 | 0 | Land use changes | Argentina (El Bolson, Provincia de Rio Negro) | [236][609] |
| Angiostrongylus cantonensis | 1945 | protozoa | 1 | 2 | 0 | 0 | International travel & commerce | Taiwan | [70][457][487] |
| Anisakis simplex | 1955 | helminths | 1 | 2 | 0 | 0 | Human demographics & behavior | Netherlands | [183][197][336][384][609] |
| Australian bat lyssavirus | 1996 | virus | 1 | 2 | 0 | 0 | Land use changes | Australia (Rockhampton) | [35][193][609] |
| B19 virus | 1974 | virus | 0 | 0 | 0 | 0 | Unspecified | UK (London) | [142][270][579][609] |
| Babesia divergens | 1957 | protozoa | 1 | 1 | 0 | 1 | Land use changes | Slovenia, Croatia, BosniaHert, Montenegro&Serbia, Macedonia | [269] |
| Babesia microti | 1969 | protozoa | 1 | 2 | 0 | 1 | Land use changes | US (Nantucket, Massachusetts) | [336][609][656] |
| Babesia microti-like | 1956 | protozoa | 1 | 2 | 0 | 1 | Human susceptibility to infection | Croatia (Strmec) | [321][483][570] |
| Babesia microti-like WA1-type | 1991 | protozoa | 1 | 2 | 0 | 1 | Human susceptibility to infection | US (Washington) | [321][483] |
| Bacillus anthracis | 1979 | bacteria | 1 | 2 | 0 | 0 | Medical industry changes | Russia (Yekaterinburg) | [393][609] |
| Balamuthia mandrillaris | 1990 | protozoa | 1 | 2 | 0 | 0 | Human susceptibility to infection | US (Kings County Hospital Center, New York) | [50][98][508][640] |
| Banna | 1985 | virus | 1 | 3 | 0 | 1 | Medical industry changes | China (Xishuang Banna, Yunnan Province) | [128][315][609][675] |
| Barmah forest | 1985 | virus | 1 | 2 | 0 | 1 | International travel & commerce | Australia (Griffith, New South Wales) | [96][260][346][609] |
| Bartonella bacilliformis | 1987 | bacteria | 0 | 0 | 0 | 1 | War & famine | Ecuador (Pajan) | [40][85] |
| Bartonella bacilliformis chloramphenicol-res | 1988 | bacteria | 0 | 0 | 1 | 1 | Antimicrobial agent use | Peru | [85] |
| Bartonella elizabethae | 1986 | bacteria | 1 | 2 | 0 | 0 | Human susceptibility to infection | US (St. Elizabeth's Hospital, Brighton, Massachusetts) | [140][149][373][534][645] |
| Bartonella henselae | 1987 | bacteria | 1 | 1 | 0 | 0 | Human susceptibility to infection | US (Oklahoma City, Oklahoma) | [333][571][579] |
| Bartonella quintana | 1949 | bacteria | 0 | 0 | 0 | 1 | War & famine | Poland | [85][326][638] |
| Bordetella pertussis | 1982 | bacteria | 0 | 0 | 0 | 0 | Medical industry changes | US | [68][310][566][609] |
| Borrelia bugdorferi | 1962 | bacteria | 1 | 2 | 0 | 1 | Land use changes | US (Barnstable, Massachusetts) | [14][238][336][590][591][609] |
| Brachiola vesicularum | 1998 | protozoa | 0 | 0 | 0 | | Human susceptibility to infection | Czech Republic (Praha) | [109][539] |
| Brucella melitensis | 1995 | bacteria | 1 | 2 | 0 | 0 | Agricultural industry changes | Malta and Gozo | [41][609] |
| Burkholderia cepacia | 1981 | bacteria | 0 | 0 | 0 | 0 | Human susceptibility to infection | Canada (Toronto, Province d'Ontario) | [211][217][601][616] |
| Burkholderia pseudomallei | 1965 | bacteria | 1 | 2 | 0 | 0 | War & famine | Vietnam (Cu Chi) | [131][256] |
| California encephalitis | 1945 | virus | 1 | 2 | 0 | 1 | Land use changes | US (San Joaquin, California) | [234][249][336][355][609] |
| Campylobacter fetus | 1945 | bacteria | 1 | 2 | 0 | 0 | Human susceptibility to infection | France (Basse-Normandie) | [90][609][639] |
| Campylobacter jejuni | 1957 | bacteria | 1 | 2 | 0 | 0 | Medical industry changes | US (Boston, Massachusetts; Minneapolis, Minnesota; Los Angeles, California) | [36][317][336][573][609] |
| Campylobacter jejuni fluoroquinolone-res | 1986 | bacteria | 1 | 2 | 1 | 0 | Agricultural industry changes | Switzerland (Zurich) | [28][38][179][180][282][292][427][471][609] |
| Candida albicans | 1981 | fungi | 1 | 3 | 0 | 0 | Human susceptibility to infection | US (UCLA Medical Center, Los Angeles, California) | [43][224][609] |
| Candida albicans fluconazole-res | 1985 | fungi | 1 | 3 | 1 | 0 | Antimicrobial agent use | UK (London) | [576][609] |
| Candida albicans ketoconazole-res | 1981 | fungi | 1 | 3 | 1 | 0 | Antimicrobial agent use | US (Denver, Colorado) | [274][534][562][609] |
| Candida albicans micronazole-res | 1977 | fungi | 1 | 3 | 1 | 0 | Antimicrobial agent use | UK (Carshalton) | [268][609][644] |
| Candida glabrata fluconazole-res | 1988 | fungi | 1 | 3 | 1 | 0 | Antimicrobial agent use | UK (Bristol) | [609][739] |
| Candida krusei | 1977 | fungi | 1 | 3 | 1 | 0 | Antimicrobial agent use | US (Johns Hopkins Medical Center, Baltimore, Maryland) | [24][272][392][609] |
| Candida tropicalis | 1974 | fungi | 1 | 3 | 0 | 0 | Human susceptibility to infection | US (Memorial Sloan-Kettering, New York, New York) | [24][394][668] |
| Chikungunya | 1952 | virus | 1 | 2 | 0 | 1 | Human demographics & behavior | Tanzania (Lindi; Mtwara; Ruvuma) | [238][306][336][609] |
| Chlamydia pneumoniae TWAR strain | 1965 | bacteria | 0 | 0 | 0 | 0 | Unspecified | Taiwan | [231][336] |
| Chlamydia trachomatis pandrug-res | 1997 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (Atlanta, Georgia) | [583][609] |
| Clostridium botulinum | 1976 | bacteria | 1 | 2 | 0 | 0 | Food industry changes | US (California) | [49][398][609] |
| Clostridium difficile | 1973 | bacteria | 1 | 1 | 0 | 0 | Human susceptibility to infection | US (Saint Louis, US) | [66][212][336][609][611] |
| Clostridium difficile clindamycin-resistance | 1989 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (Albany, New York) | [429][609] |
| Coccidioides immitis | 1990 | fungi | 1 | 2 | 0 | 0 | Climate & weather | US (Kern County, California) | [24][450][609] |
| Corynebacterium diphtheriae | 1985 | bacteria | 0 | 0 | 0 | 0 | Breakdown of public health measures | Russia (Smolensk) | [503][609] |
| Corynebacterium jeikeium | 1970 | bacteria | 0 | 0 | 0 | 0 | Human susceptibility to infection | US (Cornell Medical Center, New York, New York) | [76][288][301] |
| Corynebacterium jeikeium cipro-res | 1987 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | UK (Belfast) | [422] |
| Coxiella burnetii | 1940 | rickettsia | 1 | 2 | 0 | 0 | War & famine | Slovenia, Croatia, BosniaHerz, Serbia&Montenegro, Albania, Macedonia | [140][549] |
| Crimean-Congo Hemorrhagic Fever | 1944 | virus | 1 | 2 | 0 | 1 | War & famine | Ukraine (Crimea) | [304][333][336][609][649] |
| Cryptococcus neoformans | 1950 | fungi | 1 | 2 | 0 | 0 | Human susceptibility to infection | Congo (Lubumbashi) | [336][406][597][609] |
| Cryptosporidium parvum | 1974 | protozoa | 1 | 1 | 0 | 0 | Land use changes | US (Olympia, Washington) | [336][391][435][609] |
| Cyclospora cayetanensis | 1977 | protozoa | 1 | 3 | 0 | 0 | Human susceptibility to infection | Papua New Guinea (Finschhafen) | [25][56][609] |
| Dengue | 1954 | virus | 1 | 2 | 0 | 1 | War & famine | Philippines (Angeles City, Manila) | [14][237][250][336][582][609] |
| Ebola virus (Sudan) | 1976 | virus | 1 | 2 | 0 | 0 | Bushmeat | Sudan (Nzara) | [8][704][721][737][738] |
| Echinococcus granulosus | 1971 | helminths | 1 | 2 | 0 | 0 | Breakdown of public health measures | Bulgaria | [174][175][609] |
| Ehrlichia canis | 1986 | rickettsia | 1 | 1 | 0 | 1 | Land use changes | US (Gurdon, Arkansas) | [333][364] |
| Ehrlichia chaffeensis | 1990 | rickettsia | 1 | 2 | 0 | 1 | Land use changes | US (Fort Chaffee, Arkansas) | [48][156][336][387][609] |
| Ehrlichia equi | 1990 | rickettsia | 1 | 2 | 0 | 1 | Land use changes | US (Duluth, Minnesota) | [63][333][609] |
| Ehrlichia ewingii | 1996 | rickettsia | 1 | 2 | 0 | 1 | Human susceptibility to infection | US (Missouri) | [106][140][609] |
| Ehrlichia phagocytophila | 1990 | rickettsia | 1 | 2 | 0 | 1 | Land use changes | US (Duluth, Minnesota) | [63][127][140][333] |
| Ehrlichia sennetsu | 1953 | rickettsia | 1 | 1 | 0 | 1 | International travel & commerce | Japan (Kyushu Island) | [401][500] |
| Encephalitozoon cuniculi | 1987 | protozoa | 1 | 2 | 0 | 0 | Human susceptibility to infection | Switzerland (Geneva) | [609][684] |
| Encephalitozoon hellem | 1990 | protozoa | 1 | 2 | 0 | 0 | Human susceptibility to infection | US (Texas: New York) | [164][540][609] |
| Encephalitozoon intestinalis | 1990 | protozoa | 0 | 0 | 0 | 0 | Human susceptibility to infection | US (Newark, New Jersey) | [143][441][442][609] |
| Enterococcus faecalis gent-res | 1978 | bacteria | 1 | 1 | 1 | 0 | Agricultural industry changes | France (Paris) | [273][423][587][609] |
| Enterococcus faecalis vanc-res | 1986 | bacteria | 1 | 1 | 1 | 0 | Agricultural industry changes | UK (King's College Hospital, Dulwich, London) | [343][425][609][632] |
| Enterococcus faecium amp-res | 1989 | bacteria | 1 | 1 | 1 | 0 | Agricultural industry changes | US (Boston, Massachusetts) | [230][425][609][674] |
| Enterococcus faecium gent-res | 1986 | bacteria | 1 | 1 | 1 | 0 | Antimicrobial agent use | US (Children's Hospital Medical Center, Boston, Massachusetts) | [177][282][609] |
| Enterococcus faecium linezolid-res | 2000 | bacteria | 1 | 1 | 1 | 0 | Agricultural industry changes | US (Chicago, Illinois) | [221][425][609] |
| Enterococcus faecium pen-res | 1989 | bacteria | 1 | 1 | 1 | 0 | Antimicrobial agent use | US (Philadelphia,Pennsylvania) | [107][282][343][609] |
| Enterococcus faecium vanc-res | 1986 | bacteria | 1 | 1 | 1 | 0 | Agricultural industry changes | UK (King's College Hospital, Dulwich, London) | [335][343][425][609][632] |
| Enterocytozoon bieneusi | 1985 | protozoa | 1 | 1 | 0 | 0 | Human susceptibility to infection | Haiti | [143][162][609] |
| Enterovirus 70 | 1969 | virus | 0 | 0 | 0 | 0 | Unspecified | Ghana (Accra) | [20][126] |
| Enterovirus 71 | 1974 | virus | 0 | 0 | 0 | 0 | Unspecified | US (California) | [145][302][345][538] |
| Escherichia coli non-O157:H7 | 1992 | bacteria | 1 | 2 | 0 | 0 | Food industry changes | Italy (Lombardia) | [111][144][609] |
| Escherichia coli O103:H2 | 1980 | bacteria | 1 | 2 | 0 | 0 | Food industry changes | UK | [81][144][168][308][374][605][609] |
| Escherichia coli O104:H2 | 1984 | bacteria | 1 | 2 | 0 | 0 | Food industry changes | UK (Oxford) | [81][144][548][609] |
| Escherichia coli O104:H21 | 1994 | bacteria | 1 | 2 | 0 | 0 | Food industry changes | US (Helena, Montana) | [13][81][144][609] |
| Escherichia coli O111:H- | 1953 | bacteria | 1 | 2 | 0 | 0 | Food industry changes | US (Fort Belvoir, Virginia) | [81][111][144][609] |
| Escherichia coli O111:H– | 1943 | bacteria | 1 | 2 | 0 | 0 | Food industry changes | UK (London) | [99][144][609] |
| Escherichia coli O111:H2 | 1980 | bacteria | 1 | 2 | 0 | 0 | Food industry changes | Australia (Subiaco) | [81][144][239][414][609] |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Escherichia coli O111:H8 | 1985 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Germany (Saarbrucken) | [74][81][82][144][609] |
| Escherichia coli O118:H12 | 1984 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Peru | [81][144][609][662] |
| Escherichia coli O118:H16 | 1990 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Germany (Bayern; Nordrhein-westfalen; Schleswig-Holstein) | [83][609][662] |
| Escherichia coli O118:H2 | 1996 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Japan (Komatsu, Ishikawa-ken) | [257][609] |
| Escherichia coli O118:H30 | 1990 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Canada (Guelph, Province d'Ontario) | [81][144][609][662] |
| Escherichia coli O145:H- | 1980 | bacteria | 1 | 2 | 0 | 0 Food industry changes | US (South Dakota) | [81][144][609][627] |
| Escherichia coli O145:H5 | 1990 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Japan | [81][144][327][609] |
| Escherichia coli O153:H25 | 1984 | bacteria | 1 | 2 | 0 | 0 Food industry changes | UK (Belfast) | [81][144][548][609] |
| Escherichia coli O157:H7 | 1975 | bacteria | 1 | 2 | 0 | 0 Food industry changes | US (California) | [14][336][511][609] |
| Escherichia coli O163:H19 | 1984 | bacteria | 1 | 2 | 0 | 0 Food industry changes | UK (Southampton) | [81][144][548][609] |
| Escherichia coli O26:H- [nonmotile] | 1952 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Switzerland | [81][144][443][462][609] |
| Escherichia coli O26:H11 | 1965 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Italy (Palermo) | [81][82][144][548][609] |
| Escherichia coli O4:H- | 1983 | bacteria | 1 | 2 | 0 | 0 Food industry changes | US (Georgia) | [81][144][609][627] |
| Escherichia coli O4:H5 | 1980 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Australia (Subiaco) | [81][144][239][609] |
| Escherichia coli O45:H2 | 1983 | bacteria | 1 | 2 | 0 | 0 Food industry changes | US (Michigan) | [81][144][609][627] |
| Escherichia coli O5:H- | 1980 | bacteria | 1 | 2 | 0 | 0 Food industry changes | UK | [81][144][168][609] |
| Escherichia coli O55:H7 | 1980 | bacteria | 1 | 2 | 0 | 0 Food industry changes | UK | [81][144][168][609] |
| Escherichia coli O91:H– | 1995 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Italy; Germany | [26][144][309][523][609] |
| European Tick Borne Encephalitis | 1993 | virus | 1 | 2 | 0 | 1 Land use changes | Norway; Sweden; Denmark (Bornholm) | [34][245][360][609] |
| Far Eastern Tick Borne Encephalitis | 1993 | virus | 1 | 2 | 0 | 1 Land use changes | Japan (Kamiiso, Oshima District, Hokkaido) | [34][173][603][609] |
| Francisella tularensis | 1966 | bacteria | 1 | 2 | 0 | 1 Agricultural industry changes | Sweden (Kall, Jamtlands Lan; Hogarna Jamtlands Lan) | [148][596][609] |
| Fusarium moniliforme | 1978 | fungi | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Bethesda, Maryland) | [23][333][609][678] |
| Fusarium oxysporum | 1972 | fungi | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Morgantown, West Virginia) | [23][243][333][609] |
| Fusarium solani | 1973 | fungi | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Kansas) | [23][130][333][609] |
| Giardia duodenalis | 1975 | protozoa | 0 | 0 | 0 | 0 Human demographics & behavior | US (Atlanta, Georgia) | [88][255][609][620] |
| Guama | 1954 | virus | 1 | 2 | 0 | 1 Land use changes | Brazil (Belem) | [117][562][609] |
| Guanarito | 1989 | virus | 1 | 2 | 0 | 0 Land use changes | Venezuela (Guanarito, Estado Portuguesa) | [22][125][157][222][529][609][633] |
| Haemophilus ducreyi | 2002 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | Europe | [254][609] |
| Haemophilus influenzae | 2000 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | Italy | [118][609] |
| Haemophilus influenzae amp/cm/tmp-smz-res | 1979 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Thailand (Bangkok Noi) | [565][609] |
| Haemophilus influenzae amp-res (beta-lac positive) | 1972 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Germany | [609][693][703][743][745] |
| Haemophilus influenzae biogroup aegyptius | 1984 | bacteria | 0 | 0 | 0 | 0 Medical industry changes | Brazil (Londrina, Estado do Parana) | [416][609][723][735][736] |
| Haemophilus influenzae chlor/amp-res | 1979 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Thailand (Bangkok Noi) | [609][699][720] |
| Haemophilus influenzae chlor/tc-res | 1975 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Netherlands | [609][699][720] |
| Haemophilus influenzae chlor-res | 1975 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | US (Texas) | [609][695] |
| Hansenula anomala | 1984 | fungi | 0 | 0 | 0 | 0 Human susceptibility to infection | UK (Liverpool Maternity Hospital, Liverpool) | [261][322][421] |
| Hantaan | 1941 | virus | 1 | 2 | 0 | 0 Land use changes | China (Jilin; Heilongjiang; Liaoning) | [14][72][336][609] |
| Helicobacter cinaedi | 1984 | bacteria | 1 | 1 | 0 | 0 Human demographics & behavior | US (University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas) | [430][458][581] |
| Helicobacter fennelliae | 1980 | bacteria | 1 | 1 | 0 | 0 Human demographics & behavior | US (Harborview Medical Center, Seattle, Washington) | [190][431][581][623][624] |
| Hendra | 1994 | virus | 1 | 2 | 0 | 0 International travel & commerce | Australia (Brisbane, Queensland) | [424][446][609] |
| Hepatitis B HBeAg-negative (variant with truncated protein products) | 1989 | virus | 0 | 0 | 0 | 0 Medical industry changes | Italy; Greece | [14][114][154][336][609] |
| Hepatitis B vaccine escape mutant | 1990 | virus | 0 | 0 | 0 | 0 Human demographics & behavior | Italy (Neopolitan) | [14][154][336][598][598][609] |
| Hepatitis C | 1975 | virus | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Bethesda, Maryland) | [14][189][336][579][609] |
| Hepatitis E | 1955 | virus | 1 | 2 | 0 | 0 Unspecified | India (Delhi) | [328][336][609] |
| Hepatitis G | 1964 | virus | 0 | 0 | 0 | 0 Medical industry changes | US (Chicago, Illinois) | [37][275][567][609] |
| Histoplasma capsulatum | 1980 | fungi | 1 | 2 | 0 | 0 Human susceptibility to infection | US (Indianapolis, Indiana) | [609][641] |
| Human enterovirus B Echovirus type 13 | 2000 | virus | 0 | 0 | 0 | 0 International travel & commerce | Spain (Canary Islands) | [59][419][624] |
| Human Herpesvirus 1 Acyclovir-res | 1980 | virus | 0 | 0 | 1 | 0 Antimicrobial agent use | US (North Carolina) | [146][336][564][609] |
| Human Herpesvirus 1 Idoxuridine-res | 1963 | virus | 0 | 0 | 1 | 0 Antimicrobial agent use | US (Gainesville, Florida) | [194][336][574][609] |
| Human Herpesvirus 3 acyclovir-res | 1986 | virus | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Suffolk County, New York) | [349][447][609] |
| Human Herpesvirus 5/CMV foscarnet-res | 1991 | virus | 0 | 0 | 1 | 0 Antimicrobial agent use | US (Milwaukee, Wisconsin) | [325][336][609] |
| Human Herpesvirus 5/CMV ganciclovir-res | 1989 | virus | 0 | 0 | 1 | 0 Antimicrobial agent use | US (University of Minnesota Health Sciences Center, Minneapolis, Minnesota) | [182][270][336][609] |
| Human Herpesvirus 6 | 1986 | virus | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Philadelphia, Pennsylvania) | [19][169][270][528][579][592][610][676] |
| Human Herpesvirus 7 | 1989 | virus | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Bethesda, Maryland) | [204][247][270][341] |
| Human Herpesvirus 8 | 1994 | virus | 0 | 0 | 0 | 0 Human susceptibility to infection | US (New York, New York) | [121][166][186][270][579][609] |
| Human Immunodeficiency Virus 1 | 1959 | virus | 1 | 2 | 0 | 0 Bushmeat | Congo (Kinshasa) | [1][62][336][609][687][708][709][715][716][718][728] |
| Human Immunodeficiency Virus 1 Dideoxycytidine-res | 1990 | virus | 0 | 0 | 1 | 0 Antimicrobial agent use | US (New Brunswick, New Jersey) | [196][609] |
| Human Immunodeficiency Virus 1 multi-dideoxynucleoside res | 1994 | virus | 0 | 0 | 1 | 0 Antimicrobial agent use | US (West Point, Pennsylvania) | [311][560][609] |
| Human Immunodeficiency Virus 1 Zidovudine-res | 1986 | virus | 0 | 0 | 1 | 0 Antimicrobial agent use | US (San Diego, California) | [331][336][609] |
| Human Immunodeficiency Virus 2 | 1960 | virus | 0 | 0 | 0 | 0 War & famine | Guinea Bissau | [104][137][336][339][376][609] |
| Human papillomavirus | 1980 | virus | 0 | 0 | 0 | 0 Human demographics & behavior | Unspecified | [336][609] |
| Human T-Lymphotropic virus 1 | 1974 | virus | 0 | 0 | 0 | 0 Human susceptibility to infection | Japan (Kyushu) | [167][609][677] |
| Human T-Lymphotropic Virus 2 | 1979 | virus | 0 | 0 | 0 | 0 Medical industry changes | US (Bethesda, Maryland) | [336][474] |
| Influenza A virus | 1997 | virus | 1 | 2 | 0 | 0 Agricultural industry changes | China (Hong Kong) | [14][136][336][539][599][609] |
| Isospora belli | 1981 | protozoa | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Miami, Florida) | [379][609] |
| Jamestown Canyon virus | 1960 | virus | 1 | 2 | 0 | 1 Land use changes | US (Wisconsin) | [233][336][617] |
| Japanese encephalitis virus | 1989 | virus | 1 | 2 | 0 | 1 Agricultural industry changes | Papua New Guinea (Daru) | [336][360][361][561][609] |
| Junin virus Unspecified Argentine hemorrhagic fever | 1958 | virus | 1 | 2 | 0 | 0 Agricultural industry changes | Argentina (Junin, Provincia de Buenos Aires) | [52][181][368][369][452][609] |
| Klebsiella pneumoniae | 1981 | bacteria | 1 | 1 | 0 | 0 Human susceptibility to infection | Taiwan (T'ai-pei) | [122][207][609][642] |
| Klebsiella pneumoniae late generation cephalosporins-res | 1983 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Germany (Frankfurt, Land Brandenburg) | [324][395][551][609] |
| Kunjin virus | 1974 | virus | 1 | 2 | 0 | 1 Land use changes | Australia (Mildura, Victoria) | [248][377] |
| Kyasanur forest disease virus | 1957 | virus | 1 | 2 | 0 | 1 Land use changes | India (Karnataka) | [235][236][609][637] |
| LaCrosse virus | 1960 | virus | 1 | 2 | 0 | 1 Land use changes | US (La Crosse, Wisconsin) | [238][302][618] |
| Laguna Negra virus | 1995 | virus | 1 | 2 | 0 | 0 Agricultural industry changes | Paraguay (Chaco Region) | [303][609][666] |
| Lassa virus | 1969 | virus | 1 | 2 | 0 | 0 International travel & commerce | Nigeria (Lassa) | [14][113][195][202][407][408][609] |
| Legionella pneumophila | 1976 | bacteria | 0 | 0 | 0 | 0 Other industries | US (Philadelphia, Pennsylvania) | [14][336][594][609] |
| Leishmania donovani | 1988 | protozoa | 1 | 2 | 0 | 1 Human susceptibility to infection | Germany | [32][132][609] |
| Leishmania infantum | 1990 | protozoa | 1 | 2 | 0 | 1 Land use changes | Spain; France; Portugal; Italy | [158][238][609][658] |
| Leishmania tropica | 1990 | protozoa | 1 | 2 | 0 | 1 War & famine | Saudi Arabia | [336][366] |
| Leptospira fainei | 1995 | bacteria | 1 | 1 | 0 | 0 Agricultural industry changes | Australia (Victoria) | [55][124] |
| Leptospira interrogans | 1950 | bacteria | 1 | 2 | 0 | 0 War & famine | Malaysia | [336][340][609] |
| Leptospira weilii | 2000 | bacteria | 1 | 2 | 0 | 0 Land use changes | Malaysia (Sabah) | [244] |
| Listeria monocytogene | 1979 | bacteria | 1 | 2 | 0 | 0 Agricultural industry changes | Canada (Prince Edward Island, Nova Scotia, New Brunswick) | [225][537][609] |
| Loa loa | 1990 | helminths | 0 | 0 | 0 | 1 International travel & commerce | Guinea | [2][176][238][460][609][621] |
| Machupo virus | 1959 | virus | 1 | 2 | 0 | 0 Agricultural industry changes | Boliva (El Beni) | [157][316][464][529][582][609] |
| Malassezia furfur | 1981 | helminths | 1 | 1 | 0 | 0 Human susceptibility to infection | US (Cleveland, Ohio) | [294][504] |
| Malassezia pachydermatis | 1984 | fungi | 1 | 2 | 0 | 0 Human susceptibility to infection | US (Palo Alto, California) | [133][396][609] |
| Marburg virus | 1967 | virus | 1 | 2 | 0 | 0 Medical industry changes | Germany (Wolfshausen, Land Hessen) | [14][336][380][465][609][721] |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mayaro virus | 1954 | virus | 1 | 2 | 0 | 1 Land use changes | Trinidad | [45][609][613][613] |
| Measles virus | 1980 | virus | 0 | 0 | 0 | 0 Breakdown of public health measures | US | [187][336][489][609] |
| Menangle virus | 1997 | virus | 1 | 2 | 0 | 0 Agricultural industry changes | Australia (Sydney, New South Wales) | [123][360][468][609][688] |
| Metorchis conjunctus | 1993 | helminths | 1 | 2 | 0 | 0 Agricultural industry changes | Canada (Montreal) | [144][362][609] |
| Monkepox virus | 1970 | virus | 1 | 2 | 0 | 0 Bushmeat | Congo (Basankusu) | [101][329][372][609] |
| Murray Valley encephalitis virus | 1950 | virus | 1 | 2 | 0 | 1 Climate & weather | Australia (Mildura, Victoria) | [377][586][609] |
| Mycobacterium abscessus | 1950 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | US (Saint Louis, Missouri) | [411] |
| Mycobacterium asiaticum | 1971 | bacteria | 1 | 2 | 0 | 0 Human susceptibility to infection | Australia (Brisbane, Queensland) | [653] |
| Mycobacterium bovis | 1964 | bacteria | 1 | 2 | 0 | 0 Human susceptibility to infection | Canada (Ontario) | [91][152][609][663] |
| Mycobacterium bovis multiple drug-res | 1989 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | Brazil | [97][219][609] |
| Mycobacterium celatum | 1989 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | US (California) | [108][472] |
| Mycobacterium chelonae | 1966 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | UK (West Hartlepool) | [93][103][226][285][472][550][589] |
| Mycobacterium conspicuum | 1995 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | Germany (Hannover, Land Niedersachsen) | [588] |
| Mycobacterium genavense | 1989 | bacteria | 1 | 1 | 0 | 0 Human susceptibility to infection | Switzerland (Geneve) | [94][472] |
| Mycobacterium gordonae | 1967 | bacteria | 1 | 1 | 0 | 0 Human susceptibility to infection | US (Baltimore, Maryland) | [220][383][449][472][650] |
| Mycobacterium haemophilum | 1971 | bacteria | 1 | 3 | 0 | 0 Human susceptibility to infection | Israel (Meir Hospital, Kafr Saba) | [584][609] |
| Mycobacterium kansasii | 1955 | bacteria | 1 | 2 | 0 | 0 Human susceptibility to infection | US (Dallas County, Texas) | [30][134][461][669] |
| Mycobacterium malmoense | 1968 | bacteria | 1 | 3 | 0 | 0 Human susceptibility to infection | Sweden (Malmo) | [271][542] |
| Mycobacterium marinum | 1951 | bacteria | 1 | 2 | 0 | 0 Agricultural industry changes | Sweden (Orebro) | [184][347][609][615][682] |
| Mycobacterium scrofulaceum | 1951 | bacteria | 1 | 2 | 0 | 0 Human susceptibility to infection | Canada (Montreal Children's Hospital, Montreal) | [381][481] |
| Mycobacterium shimoidei | 1975 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | Japan | [625] |
| Mycobacterium simiae | 1970 | bacteria | 1 | 2 | 0 | 0 Human susceptibility to infection | Senegal (Dakar, Region de Dakar) | [92] |
| Mycobacterium szulgai | 1984 | bacteria | 1 | 3 | 0 | 0 Human susceptibility to infection | Israel | [241] |
| Mycobacterium tuberculosis | 1981 | bacteria | 1 | 2 | 0 | 0 Human susceptibility to infection | US (Miami, Florida) | [336][473][609] |
| Mycobacterium tuberculosis isoniazid-res | 1981 | bacteria | 0 | 0 | 0 | 0 War & famine | North Korea; South Korea | [78][609] |
| Mycobacterium tuberculosis multiple drug-res | 1991 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | US (New York, New York) | [199][609][694][714][727] |
| Mycobacterium xenopi | 1965 | bacteria | 1 | 1 | 0 | 0 Human susceptibility to infection | UK (London) | [375] |
| Mycoplasma fermentans | 1950 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | Netherlands (Groningen) | [67][522] |
| Mycoplasma genitalium | 1981 | bacteria | 0 | 0 | 0 | 0 Human demographics & behavior | UK (St. Mary's Hospital, London) | [626] |
| Neisseria gonorrhoeae fluoroquinolones-res | 1992 | bacteria | 0 | 0 | 0 | 0 International travel & commerce | Australia (Sydney) | [84][604][609] |
| Neisseria gonorrhoeae pen/tet/cipr-res | 1999 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Japan (Kitakyushu) | [609][643] |
| Neisseria gonorrhoeae penicillin-res | 1956 | bacteria | 0 | 0 | 0 | 0 War & famine | UK (Whitechapel Clinic, London Hospital, London) | [318][609] |
| Neisseria gonorrhoeae tetracycline-res | 1983 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | US (Nashua, New Hampshire) | [10][609][643] |
| Neisseria meningitidis pen-res | 1985 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Spain (Madrid) | [289][526][609] |
| Neisseria meningitidis serogroup A termed subgroup III | 1966 | bacteria | 0 | 0 | 0 | 0 International travel & commerce | China (Jiangsu, Hubei) | [3][116][279][579][609] |
| Neisseria meningitidis serogroup W-135 | 2000 | bacteria | 0 | 0 | 0 | 0 International travel & commerce | Saudia Arabia (Makkah; Al Madinah al Munawwarah; Jedda) | [348][609] |
| Neisseria weaveri | 1960 | bacteria | 1 | 3 | 0 | 0 Unspecified | US (Washington) | [44] |
| New variant Cruetzfeld Jacob Disease | 1994 | prion | 1 | 1 | 0 | 0 Agricultural industry changes | UK | [336][609][664][691][701][711][712][746] |
| Nipah virus | 1998 | virus | 1 | 2 | 0 | 0 Agricultural industry changes | Malaysia (Perak) | [360][579][609] |
| Nocardia veterana | 2001 | bacteria | 0 | 0 | 0 | 0 Human susceptibility to infection | Australia (Austin & Repatriation Medical Center,Heidelberg, Victoria) | [242][476] |
| Norwalk virus | 1968 | virus | 1 | 1 | 0 | 0 Agricultural industry changes | US (Norwalk, Ohio) | [27][307][336][579][609] |
| Nosema connori | 1973 | protozoa | 0 | 0 | 0 | 0 Human susceptibility to infection | Japan | [5][373][418][609] |
| Ockelbo virus (subtype of Sindbis) | 1960 | virus | 1 | 2 | 0 | 1 International travel & commerce | Sweden (Ockelbo) | [432][559][569][609] |
| Omsk virus | 1941 | virus | 1 | 2 | 0 | 0 International travel & commerce | Russia (Omsk District, Sarghat Region, West Siberia) | [236][356] |
| O'nyong-nyong virus | 1955 | virus | 1 | 2 | 0 | 1 Unspecified | Uganda (Gulu) | [215][228][477][609][614][665] |
| Orientia tsutsugamushi | 1948 | bacteria | 1 | 3 | 0 | 1 War & famine | Mount Fuji | [79][336][469] |
| Oropouche virus | 1955 | virus | 1 | 2 | 0 | 1 Land use changes | Trinidad (Sangre Grande, County of Saint Andrew) | [46][228][265][519][609] |
| Orungo virus | 1976 | virus | 1 | 2 | 0 | 1 Unspecified | Nigeria; Central Africa Republic | [228][744] |
| Penicillium marneffei | 1970 | fungi | 1 | 2 | 0 | 0 International travel & commerce | US (South Carolina) | [165][609] |
| Picobirnavirus | 1984 | virus | 1 | 2 | 0 | 0 Human susceptibility to infection | Brazil (Bahia) | [216][463][609][696][697][698][700] |
| Plasmodium falciparum chloroquine-res | 1957 | protozoa | 0 | 0 | 0 | 1 Antimicrobial agent use | Venezuela (Trujillo, Estado Trujillo) | [110][359][412][470][609] |
| Plasmodium falciparum mefloquine-res | 1982 | protozoa | 0 | 0 | 0 | 1 Antimicrobial agent use | Thailand (Trat) | [95][110][437][470][609][657][670] |
| Plasmodium falciparum multiple drug-res | 1991 | protozoa | 0 | 0 | 0 | 1 Land use changes | Thailand (Mae Sot, Changwat Tak; Bo Rai) | [609][670][671] |
| Plasmodium falciparum proguanil-res | 1948 | protozoa | 0 | 0 | 0 | 1 Antimicrobial agent use | Malaysia | [6][110][470][609] |
| Plasmodium falciparum quinine-res | 1960 | protozoa | 0 | 0 | 0 | 1 Antimicrobial agent use | Thailand (Trat) | [110][428][436][470][609] |
| Plasmodium falciparum sulfadoxine-pyrimethamine-res | 1981 | protozoa | 0 | 0 | 0 | 1 Antimicrobial agent use | Thailand (Sa Kaeo) | [87][283][609][655] |
| Plasmodium vivax | 1964 | protozoa | 0 | 0 | 0 | 1 Breakdown of public health measures | India | [344][554][609] |
| Plasmodium vivax chloroquine-res | 1989 | protozoa | 0 | 0 | 0 | 1 War & famine | Papua New Guinea (East New Britain) | [509][609] |
| Plasmodium vivax proguanil-res | 1948 | protozoa | 0 | 0 | 1 | 1 Antimicrobial agent use | Malaysia | [6][609] |
| Pneumocystis carinii | 1942 | fungi | 0 | 0 | 0 | 0 Human susceptibility to infection | Denmark | [609][634] |
| Poliovirus type 2 | 2003 | virus | 0 | 0 | 0 | 0 Human demographics & behavior | India (Uttar Pradesh) | [54][400][609] |
| Pseudomonas aeruginosa ceftazidimide-res | 1985 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Germany (Hygeine Institute of Frankfurt, Frankfurt, Land Brandenburg) | [4][324][440][609] |
| Pseudomonas aeruginosa fluoroquinolone-res | 1987 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | US (Stamford, Connecticut) | [4][440][455][609] |
| Pseudomonas aeruginosa imipenem-res | 1988 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Japan | [4][210][440][484][609][647] |
| Puumala virus | 1995 | virus | 1 | 3 | 0 | 0 Land use changes | Croatia | [80][336][609] |
| Rabies virus | 2001 | virus | 1 | 2 | 0 | 0 Land use changes | Costa Rica (Gamba) | [61][336][609] |
| Rhodococcus equi | 1966 | bacteria | 1 | 2 | 0 | 0 Human susceptibility to infection | US (Minneapolis, Minnesota) | [218] |
| Rickettsia africae | 1992 | rickettsia | 1 | 2 | 0 | 1 International travel & commerce | Zimbabwe (Harare) | [312][313][535] |
| Rickettsia akari | 1946 | rickettsia | 1 | 2 | 0 | 1 Human demographics & behavior | US (Queens, New York, New York) | [140][232][652] |
| Rickettsia felis | 1991 | rickettsia | 1 | 2 | 0 | 1 Unspecified | US (Nueces County, Texas) | [140][499][507][518][535][541][681] |
| Rickettsia helvetica | 1997 | rickettsia | 1 | 2 | 0 | 1 Land use changes | Sweden (Uppsala) | [200][201][434] |
| Rickettsia honei | 1990 | rickettsia | 1 | 2 | 0 | 1 International travel & commerce | Thailand (University Hospital, Chiang Mai) | [454][514][568][595] |
| Rickettsia japonica | 1984 | rickettsia | 1 | 2 | 0 | 1 Unspecified | Japan (Shikoku) | [140][535][602] |
| Rickettsia mongolotimonae | 1996 | rickettsia | 1 | 2 | 0 | 1 International travel & commerce | France (Marseille) | [333][453][454][495][535] |
| Rickettsia prowazekii | 1995 | rickettsia | 1 | 2 | 0 | 1 War & famine | Burundi (N'Gozi) | [15][336][497][498][609][689] |
| Rickettsia slovaca | 1996 | rickettsia | 1 | 3 | 0 | 1 Land use changes | France (Midi-Pyrennes) | [330][496][535] |
| Rickettsia typhi | 1983 | rickettsia | 1 | 2 | 0 | 1 International travel & commerce | US (Texas) | [140][258][385][496][532][667] |
| Rift Valley fever virus | 1977 | virus | 1 | 2 | 0 | 1 Land use changes | Egypt | [14][147][336][531][534][609][707][717][719][726][729][730][731][742] |
| Rotavirus A | 1973 | virus | 1 | 2 | 0 | 0 Agricultural industry changes | Australia (Melbourne, Victoria) | [102][333][336][609] |
| Sabia virus Brazilian Hemorrhagic Fever | 1990 | virus | 1 | 2 | 0 | 0 Agricultural industry changes | Brazil (Sao Paulo, Estado de Sao Paulo) | [125][223][350][609] |
| Salmonella enterica serovar typhi 3rd generation cephalosporins-res | 1999 | bacteria | 1 | 3 | 1 | 0 Agricultural industry changes | Bangladesh (Dhaka Shishu Childrens Hospital, Dhaka) | [282][527][609] |
| Salmonella enterica serovar typhi chlor-res | 1950 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | UK (Sheffield Royal Infirmary, Sheffield) | [139][240][282][451][609] |
| Salmonella enterica serovar typhi cipro-res | 1991 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Nepal | [71][282][521][609][629] |
| Salmonella enterica serovar typhi CT18 | 1993 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Vietnam (The Friendship Hospital, Cao Lanh, Tinh Dong Thap) | [282][451][609] |
| Salmonella enterica serovar typhi multidrug-res | 1990 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Pakistan | [240][282][300][520][609] |
| Salmonella enteritidis | 1979 | bacteria | 1 | 2 | 0 | 0 Food industry changes | Hungary (Dunaszentgyorgy) | [402][486][516][573][609] |
| Salmonella enteritidis phage type 4 | 1985 | bacteria | 1 | 2 | 0 | 0 Agricultural industry changes | UK (England; Wales) | [284][486][493][535][609] |
| Salmonella paratyphi multidrug-res | 1997 | bacteria | 0 | 0 | 1 | 0 Antimicrobial agent use | Pakistan (Rawalpindi) | [71] |

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|---|---|---|---|---|---|---|---|---|---|
| Salmonella typhimurium drug-res | 1963 | bacteria | 1 | 2 | 1 | 0 | Agricultural industry changes | UK (England; Wales) | [47][486][609] |
| Salmonella typhimurium multidrug-res | 1965 | bacteria | 1 | 2 | 1 | 0 | Agricultural industry changes | UK (England; Wales) | [47][486][609] |
| Sandfly fever Naples virus | 1942 | virus | 1 | 3 | 0 | 1 | War & famine | Gaza, Israel and West Bank | [65][262][525][609] |
| SARS Coronavirus | 2002 | virus | 1 | 2 | 0 | 0 | Bushmeat | China (Foshan, Guangdong Shen) | [690][702][713][747] |
| Scedosporium inflatum | 1981 | fungi | 0 | 0 | 0 | 0 | Medical industry changes | US (Farmington, Maine) | [371][530] |
| Scedosporium prolificans | 1991 | fungi | 0 | 0 | 0 | 0 | Human susceptibility to infection | Spain | [365][609] |
| Schistosoma japonicum | 1950 | helminths | 1 | 2 | 0 | 0 | War & famine | China (Zhejiang; Fujian) | [286][314][336][399] |
| Schistosoma mansoni | 1999 | helminths | 1 | 2 | 0 | 0 | International travel & commerce | Oman (Salalah) | [410][609] |
| Seoul virus | 1989 | virus | 1 | 2 | 0 | 0 | Land use changes | US (Baltimore, US) | [147][336][609] |
| Serratia marcescens | 1998 | bacteria | 0 | 0 | 0 | 0 | Medical industry changes | Turkey (Ankara) | [60][609] |
| Serratia marcescens carbapenem-res | 1992 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (UCLA Medical Center, Los Angeles) | [482][609] |
| Serratia marcescens fluoroquinolone-res | 1986 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | Taiwan | [556][609] |
| Serratia odorifera biogroup I | 1987 | bacteria | 1 | 2 | 0 | 0 | Human susceptibility to infection | US (Tampa, Florida) | [129][141] |
| Shigella dysenteriae | 1998 | bacteria | 0 | 0 | 0 | 0 | Breakdown of public health measures | Indonesia (Bali; Kalimantan; Batam) | [600][609] |
| Shigella dysenteriae multiple drug-res | 1955 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | China (Hong Kong) | [342][420][606][609] |
| Shigella dysenteriae nalidixic ac.-res | 1982 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | Congo (Kivu) | [517][606][609][646] |
| Shigella dysenteriae sulfa-res | 1949 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | Japan | [606][609][646] |
| Shigella dysenteriae tet-res | 1953 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | Japan | [185][404][609] |
| Sin Nombre virus | 1978 | virus | 1 | 2 | 0 | 0 | Land use changes | US (Idaho) | [14][579][609][679] |
| Sindbis virus | 1952 | virus | 1 | 2 | 0 | 1 | Climate & weather | Uganda (Waiya Bay) | [608][609][673] |
| Staphylococcus aureus | 1980 | bacteria | 0 | 0 | 0 | 0 | Medical industry changes | US (Minnesota) | [9][336][609] |
| Staphylococcus aureus meth-res | 1960 | bacteria | 1 | 3 | 1 | 0 | Agricultural industry changes | UK (England); Canada; US | [282][298][609] |
| Staphylococcus aureus multiple drug-res | 1976 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | UK (London) | [553][609] |
| Staphylococcus aureus penicillin-res | 1942 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (Massachusetts) | [353][492][609] |
| Staphylococcus aureus vanc-res | 2002 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (Dearborn, Michigan) | [21][579][609] |
| Staphylococcus epidermidis methicillin-res | 1962 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (Boston, Massachusetts) | [153][198][485][502][524][577][609] |
| Staphylococcus epidermidis rifampin-res | 1994 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (Hahnemann University, Philadelphia, Pennsylvania) | [485][609][672] |
| Staphylococcus haemolyticus multiple drug-res | 1997 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | India (New Delhi) | [389][593] |
| Staphylococcus haemolyticus vanc-res | 1984 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | US (Albany, New York) | [544] |
| Staphylococcus lugdunensis | 1988 | bacteria | 1 | 2 | 0 | 0 | Human susceptibility to infection | France (Lyon) | [172][203] |
| Staphylococcus schleiferi | 1988 | bacteria | 0 | 0 | 0 | 0 | Unspecified | France (Lyon) | [178][203][323] |
| Stenotrophomonas maltophila | 1943 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | UK (Stafford) | [69][76][161][281][323][378][397][533][685][686] |
| Streptococcus iniae | 1995 | bacteria | 1 | 3 | 0 | 0 | Agricultural industry changes | Canada (Toronto) | [206][535][651] |
| Streptococcus pneumoniae macrolide-res | 1978 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | France | [53][291][609] |
| Streptococcus pneumoniae multiple drug-res | 1977 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | South Africa (Baragwanath Hospital, Johannesburg) | [290][291][609] |
| Streptococcus pneumoniae tet-res | 1967 | bacteria | 0 | 0 | 1 | 0 | Antimicrobial agent use | Australia (Sydney) | [100][206][227][252][291][609] |
| Streptococcus pyogenes group A | 1986 | bacteria | 0 | 0 | 0 | 0 | Unspecified | US (Rancho Mirage, California) | [336][609] |
| Strongyloides stercoralis | 1949 | helminths | 0 | 0 | 0 | 0 | War & famine | Vietnam | [214][246][609] |
| Taenia solium | 1978 | helminths | 1 | 1 | 0 | 0 | International travel & commerce | Australia (Sydney, New South Wales) | [490][547][609] |
| Tahyna virus | 1960 | virus | 1 | 2 | 0 | 1 | Unspecified | Czech Republic | [64][228] |
| Toscana virus | 1970 | virus | 0 | 0 | 0 | 1 | Unspecified | Italy (Toscana;Marche) | [213][228][545][546] |
| Toxoplasma gondii | 1981 | protozoa | 1 | 1 | 0 | 0 | Human susceptibility to infection | Canada (Montreal); US (New York, New York; Texas; Illinois); Brussels; Haiti | [42][354] |
| Trachipleistophora anthropophthera | 1998 | protozoa | 0 | 0 | 0 | | Human susceptibility to infection | Czech Republic | [636] |
| Trachipleistophora hominis | 1995 | protozoa | 0 | 0 | 0 | 0 | Human susceptibility to infection | Australia (Sydney, New South Wales) | [192][267][609] |
| Treponema pallidum | 1989 | bacteria | 0 | 0 | 0 | 0 | War & famine | Moldova; Russia; Kazakhstan; Ukraine | [506][609][660] |
| Trichinella spiralis | 1970 | helminths | 1 | 2 | 0 | 0 | Breakdown of public health measures | Argentina; China; Mexico | [426][479][609] |
| Trichomonas vaginalis | 1964 | protozoa | 0 | 0 | 0 | 0 | Human susceptibility to infection | US (Philadelphia, Pennsylvania) | [580][585][609] |
| Trichomonas vaginalis metronidazole-res | 1979 | protozoa | 0 | 0 | 1 | 0 | Antimicrobial agent use | Austria (Wien) | [352][390][609] |
| Trichosporon beigelii | 1970 | fungi | 1 | 3 | 0 | 0 | Human susceptibility to infection | South Africa (Durban) | [276][609][648] |
| Tropheryma whippelii | 1967 | bacteria | 0 | 0 | 0 | 0 | Unspecified | France | [39][170][171][579] |
| Trypanosoma brucei gambiense | 1960 | protozoa | 1 | 2 | 0 | 1 | War & famine | Democratic Republic of the Congo | [578][609][635] |
| Trypanosoma brucei rhodiensis | 1970 | protozoa | 1 | 2 | 0 | 1 | Breakdown of public health measures | Sudan (Al Istiwa'iyah) | [413][609][659] |
| Trypanosoma cruzi | 1968 | protozoa | 1 | 2 | 0 | 1 | Land use changes | Brazil (Belem, Estado do Para) | [191][555][609][612] |
| Venezuelan Equine Encephalitis virus | 1943 | virus | 1 | 2 | 0 | 1 | Agricultural industry changes | Trinidad | [228][238][336][494][609] |
| Vibrio cholerae O1 El Tor | 1961 | bacteria | 0 | 0 | 0 | 0 | Breakdown of public health measures | Indonesia (Celebes Island; Sulawesi) | [14][336][609] |
| Vibrio cholerae O139 | 1992 | bacteria | 0 | 0 | 0 | 0 | International travel & commerce | India (Madras) | [14][336][513][609][628] |
| Vibrio damsela | 1971 | bacteria | 1 | 2 | 0 | 0 | Climate & weather | US (Louisiana) | [415][536] |
| Vibrio fluvialis | 1965 | bacteria | 1 | 3 | 0 | 0 | Climate & weather | Bangladesh (Dhaka) | [338][536] |
| Vibrio hollisae | 1976 | bacteria | 1 | 3 | 0 | 0 | Climate & weather | US (Maryland) | [415][536] |
| Vibrio metschnikovii | 1978 | bacteria | 0 | 0 | 0 | 0 | Climate & weather | US (Chicago, Illinois) | [295][536] |
| Vibrio mimicus | 1977 | bacteria | 1 | 3 | 0 | 0 | Climate & weather | US (Louisiana) | [155][536][552] |
| Vibrio parahaemolyticus | 1950 | bacteria | 1 | 3 | 0 | 0 | Climate & weather | Japan (Matsubara, Osaka-fu) | [293][305][536] |
| Vibrio vulnificus | 1964 | bacteria | 1 | 2 | 0 | 0 | Agricultural industry changes | US (Virginia) | [89][333][573][609] |
| Wangiella dermatitidis | 1980 | fungi | 0 | 0 | 0 | 0 | Human susceptibility to infection | Us (South Carolina) | [266][382] |
| Wesselsbron virus | 1989 | virus | 1 | 1 | 0 | 1 | International travel & commerce | Madagascar | [228][609][683] |
| West Nile Virus | 1999 | virus | 1 | 2 | 0 | 1 | International travel & commerce | US (Queens, New York, New York) | [18][579][609][692][722][725] |
| Whitewater Arroyo virus | 1999 | virus | 1 | 2 | 0 | 0 | Land use changes | US (California) | [73][579] |
| Wuchereria bancrofti | 1965 | helminths | 0 | 0 | 0 | 1 | Land use changes | Egypt | [253][460][609][619] |
| Yellow fever virus | 1940 | virus | 1 | 2 | 0 | 1 | Breakdown of public health measures | Sudan (Nuba Mountains) | [238][336][409][609] |
| Yersinia enterocolitica O:3 | 1949 | bacteria | 1 | 1 | 0 | 0 | International travel & commerce | Switzerland | [259][607][609] |
| Yersinia enterocolitica O:5, 27 | 1960 | bacteria | 1 | 1 | 0 | 0 | International travel & commerce | Germany | [33][607][609] |
| Yersinia enterocolitica O:9 | 1968 | bacteria | 1 | 1 | 0 | 0 | International travel & commerce | Finland | [31][433][607][609] |
| Yersinia pestis | 1970 | bacteria | 1 | 2 | 0 | 1 | Land use changes | US (New Mexico) | [160][609] |
| Yersinia pestis multiple drug-res | 1995 | bacteria | 1 | 2 | 1 | 1 | Antimicrobial agent use | Madagascar (Province of Fianarantsoa) | [209][501][609] |
| Zika virus | 1977 | virus | 1 | 3 | 0 | 1 | Climate & weather | Indonesia (Tegalyoso Hospital, Klaten) | [228][439][609] |

### 1.2. Source Details

Numbers of references correspond to those in Supplementary Information Table S1.


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### 1.3. Comparison to Other Variable Definitions

A number of other studies have investigated the biological characteristics of human pathogens[1-3] (Table S2). Our analysis investigates the spatial, temporal and biological characteristics of the initial emergence of a disease in a human population ('an EID event') and predicts future patterns of disease emergence. As such, direct comparisons to the criteria and definitions used in[1-3] are only sometimes possible. Following[1-3], we classify pathogens involved in an EID event taxonomically into 5 main types: (viruses – including prions), bacteria (including rickettsia), fungi, protozoa and helminthes. We also follow the definition of vector-borne pathogens (transmission by biting or mechanical transfer by arthropods) in[1-3].

| Pathogen type | Human EID events (current paper) | Human emerging pathogens (refs[1-3]) | Total human pathogens (refs[1-3]) |
|---|---|---|---|
| Bacteria | 49.3% | 30%[1, 2] 10%[3] | 38%[1, 2] 41%[3] |
| Viruses | 25.1% | 44%[1, 2] 37%[3] | 15%[1, 2] 15%[3] |
| Fungi | 6.3% | 9%[1, 2] 7%[3] | 22%[1, 2] 23%[3] |
| Protozoa | 10.7% | 11%[1, 2] 25%[3] | 5%[1, 2] 4%[3] |
| Helminths | 3.3% | 6%[1, 2] 3%[3] | 20%[1, 2] 20%[3] |
| Vector | 22.8% | 28%[2] | 14%[2] |
| Zoonotic | 60.3% | 75%[2] 73%[3] | 61%[2] 58%[3] |
| Emerging | - | - | 13%[2] 13%[3] |

**Table S2. Characteristics of human pathogens compared to those involved in EID events.**

However, the definitions of zoonotic pathogens and emerging pathogens that we use are slightly different than in [1-3]. The definition previously used in [2, 3] for zoonotic pathogens follows the World Health Organization's (WHO) definition as 'diseases that are naturally transmitted between vertebrates and humans (not including vectors)'. Pathogens which recently evolved from related animal pathogens (e.g., HIV-1), but are no longer transmitted between animals and humans were not regarded as zoonotic by these papers. This definition was not useful for our analysis as we wanted to categorize the source of the first emergence event into humans – i.e., where the pathogen orginated. Our temporal and spatial data for these zoonoses therefore applies to the pathogen causing the event at the moment of transmission from animals into humans, prior to its evolution into the pathogen responsible for large scale emergence (i.e., SIV-1 for HIV-1). Our definition of zoonoses also differs from[2, 3] in that we consider only those pathogens which are

thought to have emerged due to transmission from a non-human animal to human, rather than those 'naturally transmitted between these hosts', i.e., we consider the direction of the transmission important. Emerging pathogens were defined in [2, 3] (following WHO) as those that have appeared in a human population for the first time, or have occurred previously, but are increasing in incidence or expanding into areas where they had not previously been reported. We broadly follow this definition by apply these criteria to define an EID event but also apply the criteria used in[4-8]. Thus in our database, an emerging infectious disease is a disease that has recently increased in incidence, impact or geographic range. Specifically it is caused by a pathogen that has recently evolved or entered the human population for the first time, or which has occurred previously, but is increasing in incidence or expanding into an area in which it has not previously been reported, or which has significantly changed its pathological or clinical presentation. We directly compare our results (EID events) with previously published papers in Table S2.

**References**

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7. Lederberg, J., Shope, R. E. & Oakes, S. C. J. Emerging Infections: Microbial Threats to Health in the United States (Institute of Medicine, National Academy Press, Washington D.C., 1992).
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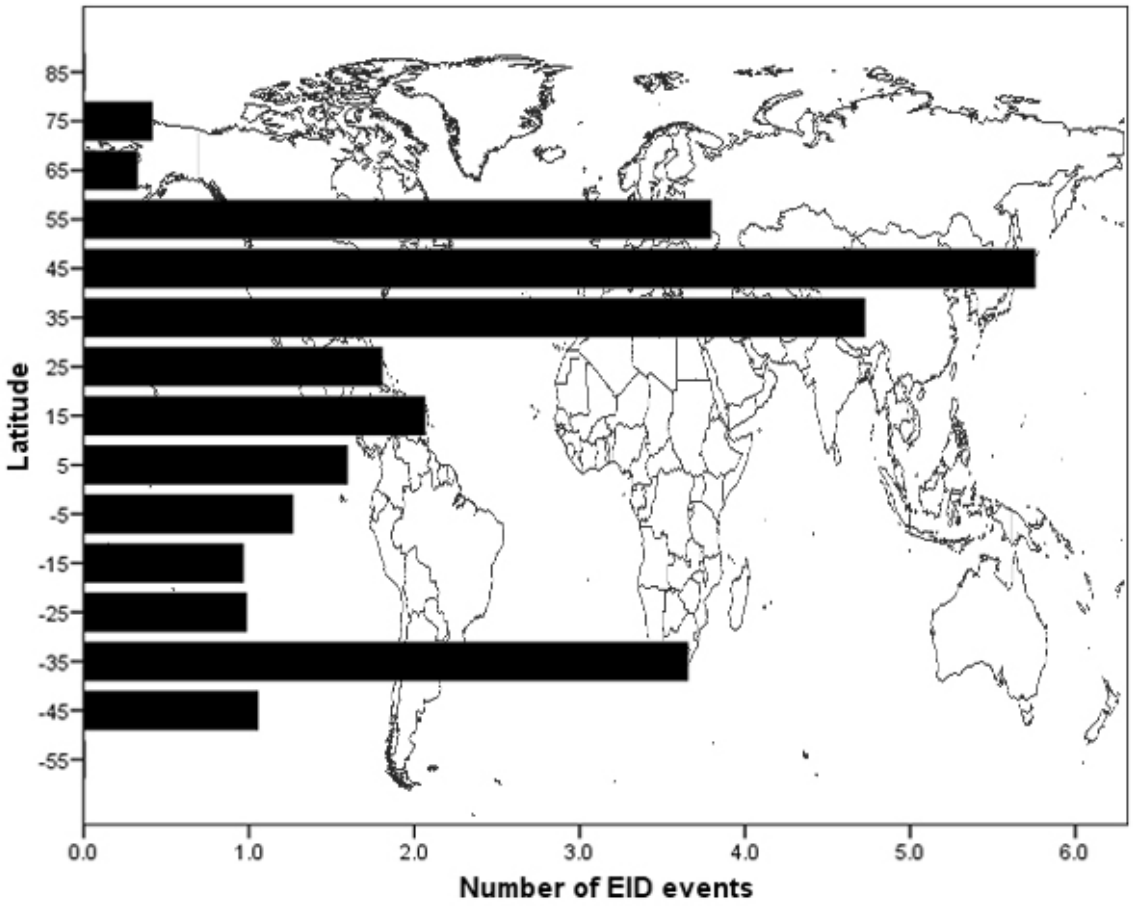
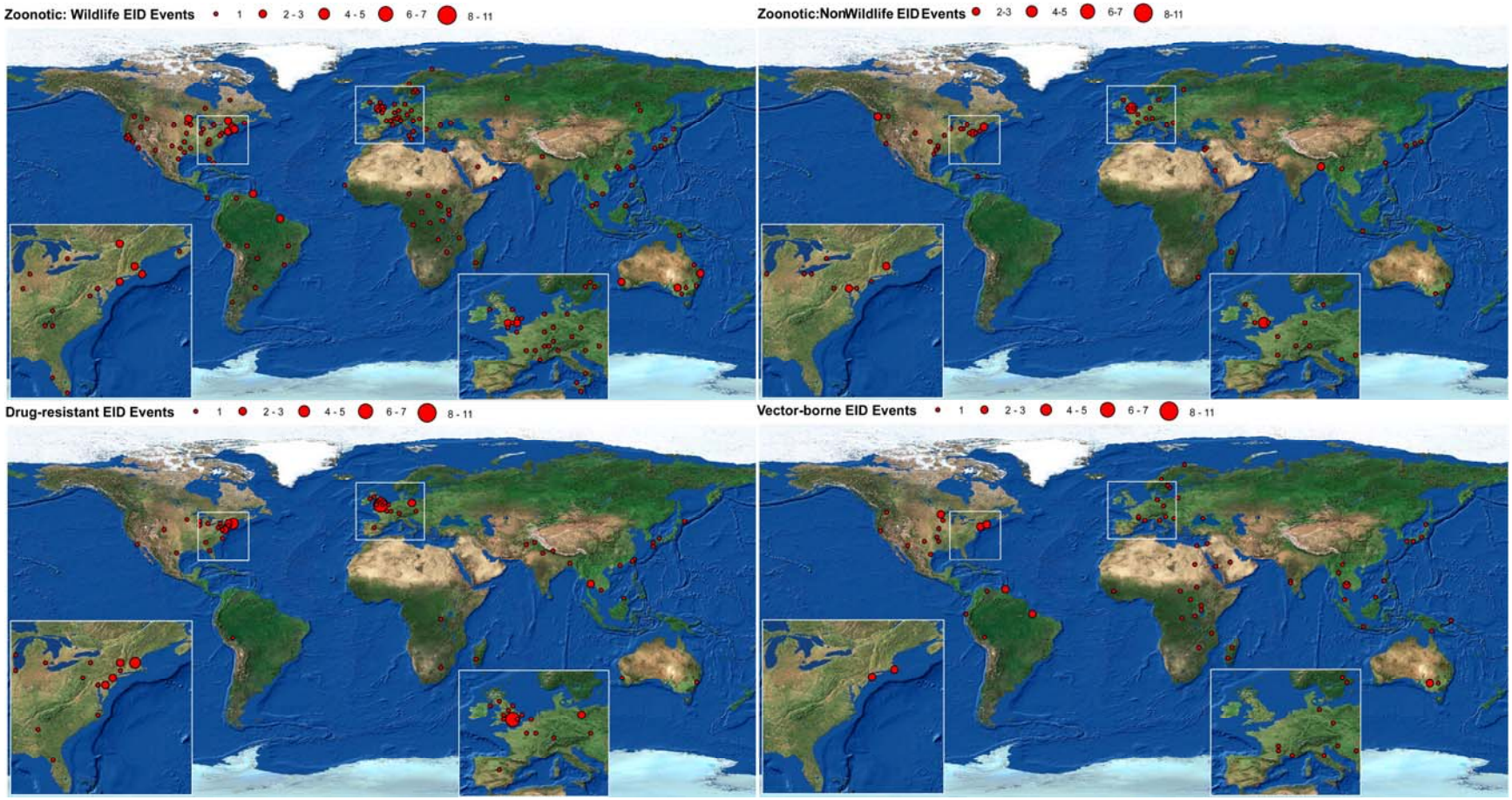
**2. Supplementary Figure 1**.




**Latitudinal gradient in EID events**. Number of all EID events per million square kilometres of land area at each 10 degree latitudinal band.

**3. Supplementary Figure 2.**




**Global richness maps of EID events from 1940-2004 split by category**. Maps are derived for EID events caused by zoonotic pathogens originating in wildlife or non-wildlife species, and EID events due to drug-resistant and vector-borne pathogens. Circles represent one degree grid cells where the area of the circle is proportional to the number of events in the cell.

**4. Supplementary Table 3.**

**Random Draw 1**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **289** | | **150** | | **53** | | **59** | | **83** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.38*** | 1.47 | 0.35*** | 1.42 | 0.49*** | 1.62 | 0.48*** | 1.62 | 0.20*** | 1.23 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.68*** | 1.98 | 0.59*** | 1.81 | 1.05*** | 2.85 | 1.10*** | 3.01 | 0.42*** | 1.52 |
| Human Pop. Growth | 0.57*** | 1.78 | 0.36 | 1.44 | 0.86* | 2.37 | 1.57*** | 4.78 | 0.31 | 1.37 |
| Latitude (decimal degrees) | 0.016* | 1.02 | 0.010 | 1.01 | 0.038* | 1.04 | 0.058*** | 1.06 | -0.009 | 0.99 |
| Rainfall (mm) | 0.23x10$^{-3}$ | 1.00 | 0.000 | 1.00 | 0.001 | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.005* | 1.01 | 0.008** | 1.01 | -0.008 | 0.99 | 0.008 | 1.01 | 0.005 | 1.01 |
| Constant | -9.28*** | | -9.14*** | | -13.77*** | | -15.56*** | | -7.82*** | |

**Random Draw 2**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **288** | | **147** | | **49** | | **59** | | **81** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.38*** | 1.46 | 0.37*** | 1.44 | 0.49*** | 1.63 | 0.53*** | 1.69 | 0.21*** | 1.24 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.67*** | 1.96 | 0.58*** | 1.79 | 1.02*** | 2.78 | 1.14*** | 3.13 | 0.48*** | 1.61 |
| Human Pop. Growth | 0.44** | 1.55 | 0.09 | 1.09 | 0.87* | 2.39 | 1.68*** | 5.34 | 0.21 | 1.24 |
| Latitude (decimal degrees) | 0.02* | 1.02 | 0.002 | 1.00 | 0.038* | 1.04 | 0.061*** | 1.06 | -0.006 | 0.99 |
| Rainfall (mm) | 0.000* | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.001* | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.006* | 1.01 | 0.008** | 1.01 | -0.003 | 1.00 | 0.007 | 1.01 | 0.007* | 1.01 |
| Constant | -9.28*** | | -8.78*** | | -13.84*** | | -16.24*** | | -8.21*** | |

**Random Draw 3**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **301** | | **156** | | **50** | | **64** | | **86** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.36*** | 1.44 | 0.37*** | 1.45 | 0.42*** | 1.52 | 0.51*** | 1.66 | 0.17** | 1.19 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.67*** | 1.96 | 0.64*** | 1.90 | 0.88*** | 2.41 | 1.18*** | 3.27 | 0.47*** | 1.59 |
| Human Pop. Growth | 0.53*** | 1.69 | 0.20 | 1.22 | 1.11** | 3.05 | 1.34*** | 3.82 | 0.15 | 1.16 |
| Latitude (decimal degrees) | 0.02** | 1.02 | 0.017 | 1.02 | 0.024 | 1.02 | 0.05** | 1.05 | -0.008 | 0.99 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Rainfall (mm) | 0.000* | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.001* | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.006** | 1.01 | 0.01*** | 1.01 | -0.015* | 0.99 | 0.003 | 1.00 | 0.005 | 1.01 |
| Constant | -9.21*** | | -9.81*** | | -11.73*** | | -15.52*** | | -7.74*** | |

**Random Draw 4**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **298** | | **153** | | **52** | | **63** | | **88** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.36*** | 1.44 | 0.34*** | 1.41 | 0.42*** | 1.53 | 0.52*** | 1.67 | 0.17** | 1.18 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.67*** | 1.96 | 0.58*** | 1.79 | 0.98*** | 2.67 | 1.19*** | 3.27 | 0.45*** | 1.56 |
| Human Pop. Growth | 0.54*** | 1.72 | 0.29 | 1.33 | 0.96* | 2.61 | 1.45*** | 4.26 | 0.24 | 1.27 |
| Latitude (decimal degrees) | 0.02** | 1.02 | 0.017 | 1.02 | 0.035* | 1.04 | 0.058*** | 1.06 | -0.006 | 0.99 |
| Rainfall (mm) | 0.000* | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.006* | 1.01 | 0.01*** | 1.01 | -0.009 | 0.99 | 0.006 | 1.01 | 0.004 | 1.01 |
| Constant | -9.17*** | | -9.46*** | | -12.82*** | | -15.89*** | | -7.80*** | |

**Random Draw 5**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **300** | | **154** | | **51** | | **63** | | **87** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.35*** | 1.42 | 0.35*** | 1.41 | 0.45*** | 1.52 | 0.47*** | 1.60 | 0.20*** | 1.22 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.65*** | 1.92 | 0.56*** | 1.75 | 0.93*** | 2.54 | 1.09*** | 2.99 | 0.43*** | 1.54 |
| Human Pop. Growth | 0.42** | 1.51 | 0.15 | 1.16 | 0.92* | 2.52 | 1.50*** | 4.49 | 0.22 | 1.24 |
| Latitude (decimal degrees) | 0.01 | 1.01 | 0.01 | 1.01 | 0.027 | 1.03 | 0.05** | 1.05 | -0.01 | 0.99 |
| Rainfall (mm) | 0.000* | 1.00 | 0.000 | 1.00 | 0.001 | 1.00 | 0.000* | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.004 | 1.00 | 0.008** | 1.01 | -0.011 | 0.99 | 0.004 | 1.00 | 0.004 | 1.00 |
| Constant | -8.69*** | | -8.96*** | | -12.40*** | | -14.88*** | | -7.76*** | |

**Random Draw 6**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **295** | | **150** | | **53** | | **63** | | **86** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.36*** | 1.43 | 0.34*** | 1.41 | 0.40*** | 1.49 | 0.47*** | 1.59 | 0.21*** | 1.23 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.66*** | 1.94 | 0.57*** | 1.77 | 0.91*** | 2.49 | 1.03*** | 2.81 | 0.45*** | 1.57 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Human Pop. Growth | 0.42* | 1.52 | 0.15 | 1.16 | 1.31*** | 3.71 | 1.27*** | 3.56 | 0.10 | 1.10 |
| Latitude (decimal degrees) | 0.019** | 1.02 | 0.015 | 1.02 | 0.04* | 1.04 | 0.05** | 1.05 | -0.015 | 0.99 |
| Rainfall (mm) | 0.000** | 1.00 | 0.000 | 1.00 | 0.001* | 1.00 | 0.001** | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.006* | 1.01 | 0.01*** | 1.01 | -0.01 | 0.99 | 0.000 | 1.00 | 0.003 | 1.00 |
| Constant | -9.22*** | | -9.34*** | | -12.66*** | | -14.41*** | | -7.53*** | |

**Random Draw 7**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **297** | | **154** | | **52** | | **59** | | **87** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.37*** | 1.43 | 0.37*** | 1.44 | 0.42*** | 1.53 | 0.49*** | 1.64 | 0.17** | 1.19 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.69*** | 1.94 | 0.62*** | 1.86 | 0.95*** | 2.58 | 1.27*** | 3.55 | 0.44*** | 1.55 |
| Human Pop. Growth | 0.47* | 1.52 | 0.22 | 1.24 | 0.95* | 2.60 | 1.60*** | 4.93 | 0.12 | 1.13 |
| Latitude (decimal degrees) | 0.02** | 1.02 | 0.02 | 1.02 | 0.034* | 1.04 | 0.072*** | 1.08 | -0.002 | 1.00 |
| Rainfall (mm) | 0.000** | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.008* | 1.01 | 0.01*** | 1.01 | -0.01 | 0.99 | 0.016** | 1.02 | 0.007* | 1.01 |
| Constant | -9.63*** | | -9.58*** | | -12.57*** | | -17.45*** | | -8.10*** | |

**Random Draw 8**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **288** | | **150** | | **49** | | **59** | | **83** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.37*** | 1.44 | 0.36*** | 1.43 | 0.43*** | 1.54 | 0.51*** | 1.67 | 0.20*** | 1.22 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.66*** | 1.93 | 0.59*** | 1.80 | 0.97*** | 2.65 | 1.16*** | 3.18 | 0.45*** | 1.57 |
| Human Pop. Growth | 0.62*** | 1.86 | 0.47* | 1.56 | 1.23** | 3.43 | 1.27*** | 3.56 | 0.07 | 1.07 |
| Latitude (decimal degrees) | 0.01* | 1.01 | 0.015 | 1.02 | 0.033 | 1.03 | 0.05** | 1.05 | -0.008 | 0.99 |
| Rainfall (mm) | 0.000** | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.000* | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.003 | 1.00 | 0.009** | 1.01 | -0.009 | 0.99 | 0.004 | 1.00 | 0.005 | 1.00 |
| Constant | -8.99*** | | -9.54*** | | -12.89*** | | -15.44*** | | -7.87*** | |

**Random Draw 9**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **289** | | **151** | | **50** | | **62** | | **86** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |

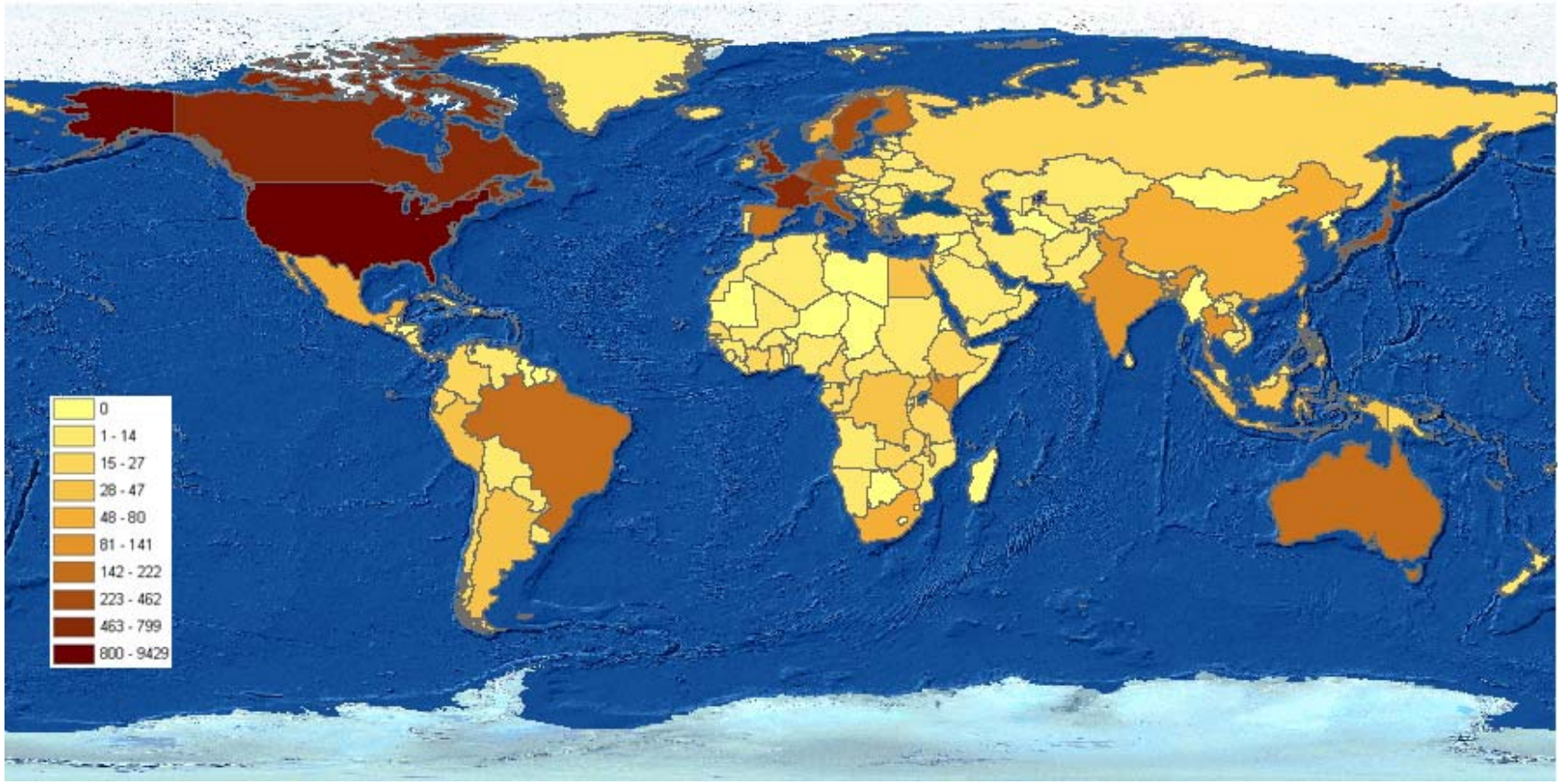
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| log(JID articles) | 0.36*** | 1.43 | 0.36*** | 1.43 | 0.44*** | 1.55 | 0.46*** | 1.58 | 0.19** | 1.20 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.68*** | 1.97 | 0.60*** | 1.83 | 1.06*** | 2.88 | 1.06*** | 2.90 | 0.49*** | 1.63 |
| Human Pop. Growth | 0.51** | 1.66 | 0.33 | 1.40 | 0.92* | 2.52 | 1.21*** | 3.35 | -0.077 | 0.93 |
| Latitude (decimal degrees) | 0.02* | 1.02 | 0.015 | 1.02 | 0.026 | 1.03 | 0.004** | 1.05 | -0.013 | 0.99 |
| Rainfall (mm) | 0.000* | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.005* | 1.01 | 0.01*** | 1.01 | -0.013 | 0.99 | 0.049 | 1.01 | 0.005 | 1.01 |
| Constant | -9.12*** | | -9.59*** | | -12.66*** | | -14.47*** | | -7.65*** | |

**Random Draw 10**

| **Pathogen Type** | **All** | | **Zoonotic: wildlife** | | **Zoonotic: non-wildlife** | | **Drug-resistant** | | **Vector-borne** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of EID event grid cells** | **295** | | **155** | | **51** | | **62** | | **88** | |
| | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** | **b** | **B** |
| log(JID articles) | 0.36*** | 1.41 | 0.35*** | 1.42 | 0.47*** | 1.60 | 0.50*** | 1.66 | 0.20*** | 1.22 |
| log(Human Pop. Density) (Persons/km$^2$) | 0.66*** | 1.99 | 0.59*** | 1.80 | 1.06*** | 2.89 | 1.15*** | 3.15 | 0.41*** | 1.51 |
| Human Pop. Growth | 0.51** | 1.53 | 0.14 | 1.15 | 0.95* | 2.58 | 1.70*** | 5.45 | 0.29 | 1.34 |
| Latitude (decimal degrees) | 0.02* | 1.01 | 0.012 | 1.01 | 0.029 | 1.03 | 0.053** | 1.05 | -0.011 | 0.99 |
| Rainfall (mm) | 0.000* | 1.00 | 0.000 | 1.00 | 0.000 | 1.00 | 0.001* | 1.00 | 0.000 | 1.00 |
| Wildlife Host Richness | 0.005* | 1.00 | 0.009** | 1.01 | -0.008 | 0.99 | 0.005 | 1.01 | 0.004 | 1.00 |
| Constant | -9.07*** | | -9.20*** | | -13.29*** | | -15.64*** | | -7.58*** | |

**Socio-economic, environmental and ecological correlates of EID events for 10 random spatial draws.** Columns represent multivariable logistic regressions for all EID events and then split according to the type of pathogen responsible for the EID event. b represents the regression coefficient and B, the odds ratio for the independent variables in the model and *** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$.

**5. Supplementary Figure 3.**




**Spatial reporting bias in EID events**. The frequency of the country listed as the address for authors in each article in the Journal of Infectious Diseases from 1973.