

## Supplementary Data

SUPPLEMENTARY TABLE S1. LIST OF PATHOGENS RESPONSIBLE FOR EID EVENTS (JONES ET AL. 2008), THE UNDERLYING DRIVER THOUGHT TO BE RESPONSIBLE FOR THEIR EMERGENCE, AND THE TRANSMISSION PATHWAYS CITED MOST OFTEN AS RESPONSIBLE FOR THEIR SPILLOVER INTO PEOPLE, ALONG WITH THE PROBABILITY AND WEIGHTING WE ASSIGNED TO EACH PATHWAY IN OUR ANALYSIS

<i>Pathogen/disease</i>	<i>Probability</i>	<i>Weights</i>	<i>Driver</i>	<i>Transmission routes</i>
Alkhurma virus	Likely	1	International travel and commerce	Vector-borne
Andes	Likely	1	Land-use change	Airborne transmission
<i>Angiostrongylus cantonensis</i>	Likely	1	International travel and commerce	Oral transmission
<i>Anisakis simplex</i>	Likely	1	Human demographics and behavior	Oral transmission
Australian bat lyssavirus	Likely	1	Land-use change	Direct animal contact
<i>Babesia divergens</i>	Likely	1	Land-use change	Vector-borne
<i>Babesia microti</i>	Likely	1	Land-use change	Vector-borne
<i>Babesia microti</i> -like	Likely	1	Land-use change	Vector-borne
<i>Bacillus anthracis</i>	Likely	0.9	Medical industry change	Direct animal contact
<i>Bacillus anthracis</i>	Less likely	0.05	Medical industry change	Airborne transmission
<i>Bacillus anthracis</i>	Less likely	0.05	Medical industry change	Oral transmission
Banna	Likely	1	Medical industry change	Vector-borne
Barmah forest	Likely	1	International travel and commerce	Vector-borne
<i>Borrelia burgdorferi</i>	Likely	1	Land-use change	Vector-borne
<i>Brucella melitensis</i>	Likely	0.45	Agricultural industry change	Direct animal contact
<i>Brucella melitensis</i>	Less likely	0.1	Agricultural industry change	Airborne transmission
<i>Brucella melitensis</i>	Likely	0.45	Agricultural industry change	Oral transmission
<i>Burkholderia pseudomallei</i>	Less likely	0.1	War and famine	Direct animal contact
<i>Burkholderia pseudomallei</i>	Likely	0.3	War and famine	Airborne transmission
<i>Burkholderia pseudomallei</i>	Likely	0.3	War and famine	Oral transmission
<i>Burkholderia pseudomallei</i>	Likely	0.3	War and famine	Contaminated environment or fomite
Bwamba	Likely	1	Land-use change	Vector-borne
California encephalitis	Likely	1	Land-use change	Vector-borne
<i>Campylobacter jejuni</i>	Less likely	0.05	Agricultural industry change	Direct animal contact
<i>Campylobacter jejuni</i>	Likely	0.9	Agricultural industry change	Oral transmission
<i>Campylobacter jejuni</i>	Likely	0.05	Agricultural industry change	Contaminated environment or fomite
Cercopithecine herpes virus 1	Likely	1	Medical industry change	Direct animal contact
Chikungunya	Likely	1	Human demographics and behavior	Vector-borne
<i>Clostridium botulinum</i>	Less likely	0.1	Food industry change	Airborne transmission
<i>Clostridium botulinum</i>	Likely	0.9	Food industry change	Oral transmission
<i>Coccidioides immitis</i>	Likely	1	Climate and weather	Airborne transmission
Cote D'ivoire Ebola	Likely	1	Land-use change	Direct animal contact
<i>Coxiella burnetii</i>	Likely	0.9	Land-use change	Airborne transmission
<i>Coxiella burnetii</i>	Less likely	0.05	Land-use change	Oral transmission
<i>Coxiella burnetii</i>	Less likely	0.05	Land-use change	Vector-borne
Crimean-Congo haemorrhagic fever	Likely	1	War and famine	Vector-borne
<i>Cryptosporidium parvum</i>	Likely	1	Land-use change	Oral transmission
Dengue	Likely	1	War and famine	Vector-borne
Eastern equine encephalitis	Likely	1	Land-use change	Vector-borne
<i>Echinococcus granulosus</i>	Likely	0.5	Land-use change	Direct animal contact
<i>Echinococcus granulosus</i>	Likely	0.5	Land-use change	Oral transmission
<i>Ehrlichia canis</i>	Likely	1	Land-use change	Vector-borne
<i>Ehrlichia chaffeensis</i>	Likely	1	Land-use change	Vector-borne
<i>Ehrlichia equi</i>	Likely	1	Land-use change	Vector-borne
<i>Ehrlichia phagocytophila</i>	Likely	1	Land-use change	Vector-borne

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SUPPLEMENTARY TABLE S1. (CONTINUED)

<i>Pathogen/disease</i>	<i>Probability</i>	<i>Weights</i>	<i>Driver</i>	<i>Transmission routes</i>
<i>Ehrlichia sennetsu</i>	Likely	1	International travel and commerce	Vector-borne
<i>Enterococcus faecalis</i>	Likely	0.5	Agricultural industry change	Direct animal contact
<i>Enterococcus faecalis</i>	Likely	0.5	Agricultural industry change	Contaminated environment or fomite
<i>Enterococcus faecalis</i>	Likely	0.5	Agricultural industry change	Direct animal contact
<i>Enterococcus faecalis</i>	Likely	0.5	Agricultural industry change	Contaminated environment or fomite
<i>Escherichia coli</i>	Likely	0.9	Food industry change	Oral transmission
<i>Escherichia coli</i>	Less likely	0.1	Food industry change	Contaminated environment or fomite
European tick-borne encephalitis	Likely	1	Land-use change	Vector-borne
Far eastern tick-borne encephalitis	Likely	1	Land-use change	Vector-borne
<i>Francisella tularensis</i>	Likely	0.25	Agricultural industry change	Direct animal contact
<i>Francisella tularensis</i>	Likely	0.25	Agricultural industry change	Airborne transmission
<i>Francisella tularensis</i>	Likely	0.25	Agricultural industry change	Oral transmission
<i>Francisella tularensis</i>	Likely	0.25	Agricultural industry change	Vector-borne
Guama	Likely	1	Land-use change	Vector-borne
Guanarito	Less likely	0.1	Land-use change	Direct animal contact
Guanarito	Likely	0.9	Land-use change	Airborne transmission
Hantaan	Likely	1	Land-use change	Airborne transmission
<i>Helicobacter cinaedi</i>	Less likely	0.1	Human demographics and behavior	Direct animal contact
<i>Helicobacter cinaedi</i>	Likely	0.9	Human demographics and behavior	Oral transmission
<i>Helicobacter cinaedi</i>	Likely	0.5	Human demographics and behavior	Direct animal contact
<i>Helicobacter cinaedi</i>	Likely	0.5	Human demographics and behavior	Oral transmission
Hendra	Likely	1	International travel and commerce	Direct animal contact
Hepatitis A	Likely	1	International travel and commerce	Oral transmission
Hepatitis E	Likely	1	Other	Oral transmission
<i>Histoplasma capsulatum</i>	Likely	1	War and famine	Airborne transmission
Influenza A virus	Likely	0.9	Agricultural industry change	Direct animal contact
Influenza A virus	Less likely	0.05	Agricultural industry change	Airborne transmission
Influenza A virus	Less likely	0.05	Agricultural industry change	Contaminated environment or fomite
Inkoo virus	Likely	1	Other	Vector-borne
Jamestown Canyon virus	Likely	1	Land-use change	Vector-borne
Japanese encephalitis virus	Likely	1	Agricultural industry change	Vector-borne
Junin virus	Likely	1	Agricultural industry change	Airborne transmission
Kunjin virus	Likely	1	Land-use change	Vector-borne
Kyasanur forest disease virus	Likely	1	Land-use change	Direct animal contact
LaCrosse virus	Likely	1	Land-use change	Vector-borne
Laguna Negra virus	Likely	1	Agricultural industry change	Airborne transmission
Lassa virus	Less likely	0.1	International travel and commerce	Direct animal contact
Lassa virus	Likely	0.9	International travel and commerce	Airborne transmission
<i>Leishmania donovani</i>	Likely	1	Land-use change	Vector-borne
<i>Leishmania infantum</i>	Likely	1	Land-use change	Vector-borne
<i>Leishmania tropica</i>	Likely	1	War and famine	Vector-borne
<i>Leptospira fainei</i>	Likely	0.5	Agricultural industry change	Direct animal contact
<i>Leptospira fainei</i>	Likely	0.5	Agricultural industry change	Contaminated environment or fomite
<i>Leptospira interrogans</i>	Less likely	0.05	War and famine	Direct animal contact
<i>Leptospira interrogans</i>	Less likely	0.05	War and famine	Oral transmission
<i>Leptospira interrogans</i>	Likely	0.9	War and famine	Contaminated environment or fomite
<i>Leptospira weilii</i>	Likely	0.5	Land-use change	Direct animal contact
<i>Leptospira weilii</i>	Likely	0.5	Land-use change	Contaminated environment or fomite
<i>Listeria monocytogenes</i>	Less likely	0.0333333	Agricultural industry change	Direct animal contact
<i>Listeria monocytogenes</i>	Less likely	0.0333333	Agricultural industry change	Airborne transmission
<i>Listeria monocytogenes</i>	Likely	0.9	Agricultural industry change	Oral transmission

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SUPPLEMENTARY TABLE S1. (CONTINUED)

<i>Pathogen/disease</i>	<i>Probability</i>	<i>Weights</i>	<i>Driver</i>	<i>Transmission routes</i>
<i>Listeria monocytogenes</i>	Less likely	0.0333333	Agricultural industry change	Contaminated environment or fomite
<i>Listeria monocytogenes</i>	Less likely	0.0333333	Medical industry change	Direct animal contact
<i>Listeria monocytogenes</i>	Less likely	0.0333333	Medical industry change	Airborne transmission
<i>Listeria monocytogenes</i>	Likely	0.9	Medical industry change	Oral transmission
<i>Listeria monocytogenes</i>	Less likely	0.0333333	Medical industry change	Contaminated environment or fomite
Louping ill virus	Likely	1	Medical industry change	Vector-borne
Machupo virus	Likely	1	Agricultural industry change	Airborne transmission
Marburg virus	Likely	1	Medical industry change	Direct animal contact
Mayaro virus	Likely	1	Land-use change	Vector-borne
Menangle virus	Likely	1	Agricultural industry change	Direct animal contact
<i>Metorchis conjunctus</i>	Likely	1	Agricultural industry change	Oral transmission
Monkeypox virus	Likely	0.9	Bushmeat	Direct animal contact
Monkeypox virus	Less likely	0.1	Bushmeat	Contaminated environment or fomite
Murray Valley encephalitis virus	Likely	1	Climate and weather	Vector-borne
<i>Mycobacterium marinum</i>	Likely	0.5	Agricultural industry change	Direct animal contact
<i>Mycobacterium marinum</i>	Likely	0.5	Agricultural industry change	Contaminated environment or fomite
<i>Mycobacterium tuberculosis</i>	Less likely	0.1	War and famine	Direct animal contact
<i>Mycobacterium tuberculosis</i>	Likely	0.9	War and famine	Airborne transmission
<i>Neisseria weaveri</i>	Likely	1	Medical industry change	Direct animal contact
New variant CJD	Likely	1	Agricultural industry change	Oral transmission
Nipah virus	Likely	0.5	Agricultural industry change	Direct animal contact
Nipah virus	Likely	0.5	Agricultural industry change	Oral transmission
Noroviruses	Likely	1	Medical industry change	Oral transmission
Norwalk virus	Less likely	0.05	Agricultural industry change	Airborne transmission
Norwalk virus	Likely	0.9	Agricultural industry change	Oral transmission
Norwalk virus	Less likely	0.05	Agricultural industry change	Contaminated environment or fomite
O'nyong-nyong virus	Likely	1	Other	Vector-borne
Ockelbo virus (subtype of Sindbis)	Likely	1	International travel and commerce	Vector-borne
Omsk virus	Less likely	0.05	International travel and commerce	Direct animal contact
Omsk virus	Likely	0.9	International travel and commerce	Vector-borne
Omsk virus	Less likely	0.05	International travel and commerce	Contaminated environment or fomite
<i>Orientia tsutsugamushi</i>	Likely	1	War and famine	Vector-borne
Oropouche virus	Likely	1	Land-use change	Vector-borne
Orungo virus	Likely	1	Other	Vector-borne
<i>Penicillium marneffeii</i>	Likely	1	International travel and commerce	Airborne transmission
Puumala virus	Likely	1	Land-use change	Airborne transmission
Rabies virus	Likely	0.9	Land-use change	Direct animal contact
Rabies virus	Less likely	0.1	Land-use change	Airborne transmission
Reston Ebola virus	Likely	1	Medical industry change	Direct animal contact
<i>Rickettsia africae</i>	Likely	1	International travel and commerce	Vector-borne
<i>Rickettsia akari</i>	Less likely	0.1	Human demographics and behavior	Direct animal contact
<i>Rickettsia akari</i>	Likely	0.9	Human demographics and behavior	Vector-borne
<i>Rickettsia felis</i>	Likely	1	Medical industry change	Vector-borne
<i>Rickettsia helvetica</i>	Likely	1	Land-use change	Vector-borne
<i>Rickettsia honei</i>	Likely	1	International travel and commerce	Vector-borne
<i>Rickettsia japonica</i>	Likely	1	Medical industry change	Vector-borne
<i>Rickettsia mongolotimonae</i>	Likely	1	International travel and commerce	Vector-borne
<i>Rickettsia prowazekii</i>	Less likely	0.1	War and famine	Airborne transmission
<i>Rickettsia prowazekii</i>	Likely	0.9	War and famine	Vector-borne
<i>Rickettsia quintana</i>	Less likely	0.1	Breakdown of public health measures	Airborne transmission
<i>Rickettsia quintana</i>	Likely	0.9	Breakdown of public health measures	Vector-borne
<i>Rickettsia rickettsii</i>	Likely	1	Human demographics and behavior	Vector-borne
<i>Rickettsia slovaca</i>	Likely	1	Land-use change	Vector-borne
<i>Rickettsia typhi</i>	Likely	1	International travel and commerce	Vector-borne

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SUPPLEMENTARY TABLE S1. (CONTINUED)

<i>Pathogen/disease</i>	<i>Probability</i>	<i>Weights</i>	<i>Driver</i>	<i>Transmission routes</i>
Rift Valley fever virus	Likely	0.9	Land-use change	Direct animal contact
Rift Valley fever virus	Less likely	0.05	Land-use change	Airborne transmission
Rift Valley fever virus	Less likely	0.05	Land-use change	Vector-borne
Rocio virus	Likely	1	Other	Vector-borne
Ross River virus	Likely	1	Land-use change	Vector-borne
Rotavirus A	Less likely	0.1	Medical industry change	Airborne transmission
Rotavirus A	Likely	0.9	Medical industry change	Oral transmission
Rotavirus B	Less likely	0.1	Medical industry change	Airborne transmission
Rotavirus B	Likely	0.9	Medical industry change	Oral transmission
Rotavirus C	Less likely	0.1	Medical industry change	Airborne transmission
Rotavirus C	Likely	0.9	Medical industry change	Oral transmission
Sabia virus	Likely	1	Medical industry change	Airborne transmission
<i>Salmonella enteritidis</i>	Likely	0.45	Food industry change	Direct animal contact
<i>Salmonella enteritidis</i>	Likely	0.45	Food industry change	Oral transmission
<i>Salmonella enteritidis</i>	Less likely	0.1	Food industry change	Contaminated environment or fomite
<i>Salmonella typhimurium</i>	Likely	1	Agricultural industry change	Oral transmission
Sandfly fever Naples virus	Likely	1	War and famine	Vector-borne
SARS virus	Likely	0.9	Bushmeat	Direct animal contact
SARS virus	Less likely	0.1	Bushmeat	Airborne transmission
<i>Schistosoma japonicum</i>	Likely	1	War and famine	Contaminated environment or fomite
<i>Schistosoma mansoni</i>	Likely	1	International travel and commerce	Contaminated environment or fomite
Seoul virus	Likely	1	Land-use change	Airborne transmission
Sin Nombre virus	Likely	1	Land-use change	Airborne transmission
Sindbis virus	Likely	1	Climate and weather	Vector-borne
St. Louis encephalitis virus	Likely	1	Climate and weather	Vector-borne
<i>Streptococcus iniae</i>	Likely	1	Agricultural industry change	Direct animal contact
Sudan Ebola virus	Likely	1	Bushmeat	Direct animal contact
<i>Taenia solium</i>	Likely	1	International travel and commerce	Oral transmission
Tahyna virus	Likely	1	Other	Vector-borne
<i>Trichinella spiralis</i>	Likely	1	Breakdown of public health measures	Oral transmission
<i>Trypanosoma brucei</i>	Likely	1	Breakdown of public health measures	Vector-borne
<i>Trypanosoma cruzi</i>	Likely	1	Land-use change	Vector-borne
Venezuelan equine encephalitis virus	Less likely	0.1	Agricultural industry change	Airborne transmission
Venezuelan equine encephalitis virus	Likely	0.9	Agricultural industry change	Vector-borne
Venezuelan equine encephalitis virus	Less likely	0.1	Medical industry change	Airborne transmission
Venezuelan equine encephalitis virus	Likely	0.9	Medical industry change	Vector-borne
<i>Vibrio damsela</i>	Likely	0.1	Climate and weather	Direct animal contact
<i>Vibrio damsela</i>	Likely	0.9	Climate and weather	Contaminated environment or fomite
<i>Vibrio fluvialis</i>	Likely	1	Climate and weather	Contaminated environment or fomite
<i>Vibrio fluvialis</i>	Likely	1	Climate and weather	Oral transmission
<i>Vibrio hollisae</i>	Likely	1	Climate and weather	Oral transmission
<i>Vibrio mimicus</i>	Likely	1	Climate and weather	Oral transmission
<i>Vibrio parahaemolyticus</i>	Likely	0.1	Climate and weather	Contaminated environment or fomite
<i>Vibrio parahaemolyticus</i>	Likely	0.9	Climate and weather	Oral transmission
<i>Vibrio vulnificus</i>	Likely	0.9	Agricultural industry change	Oral transmission
<i>Vibrio vulnificus</i>	Less likely	0.1	Agricultural industry change	Contaminated environment or fomite
Wesselsbron virus	Likely	1	International travel and commerce	Vector-borne
West Nile virus	Likely	1	International travel and commerce	Vector-borne
Western equine encephalitis virus	Likely	1	Land-use change	Vector-borne

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SUPPLEMENTARY TABLE S1. (CONTINUED)

<i>Pathogen/disease</i>	<i>Probability</i>	<i>Weights</i>	<i>Driver</i>	<i>Transmission routes</i>
Whitewater Arroyo virus	Likely	1	Land-use change	Airborne transmission
Yellow fever virus	Likely	1	Breakdown of public health measures	Vector-borne
<i>Yersinia enterocolitica</i>	Likely	1	International travel and commerce	Oral transmission
<i>Yersinia pestis</i>	Less likely	0.05	Land-use change	Direct animal contact
<i>Yersinia pestis</i>	Less likely	0.05	Land-use change	Airborne transmission
<i>Yersinia pestis</i>	Likely	0.9	Land-use change	Vector-borne
Zaire Ebola virus	Likely	1	Bushmeat	Direct animal contact
Zika virus	Likely	1	Climate and weather	Vector-borne
Zinga virus	Likely	1	Land-use change	Vector-borne