

Table 1. Major vector-borne diseases ranked in order of annual DALY burden, with primary vector, pathogen, geographical range, and categories of influence

Disease*	Estimated Annual Disability-Adjusted Life Years (DALYs) in 2019 (Wang <i>et al.</i> 2020)	Primary Vector (Genera)	Primary Pathogen	Geographic Range	Examples of Key Categories of Influence
(1) Malaria	46,437,811	Mosquito (<i>Anopheles</i>)	<i>Plasmodium</i> protozoa	All inhabited continents	Outcomes of conflict and war, with mass morbidity and mortality (Snowden 2008; Lockwood 2009; Bell 2010; McNeill 2010); socioeconomic, racial, and gender inequities (Humphreys 2001; Sallares 2002; Heggenhougen <i>et al.</i> 2003)
(2) Dengue	2,383,375	Mosquito (<i>Aedes</i>)	DENV flavivirus	All inhabited continents	Mortality in warfare (Gibbons <i>et al.</i> 2012); tourism and economic decline (Nishikawa <i>et al.</i> 2016); genetic modification (Hoffmann <i>et al.</i> 2011)
(3) Schistosomiasis	1,638,072	Freshwater snail (<i>Biomphalaria</i>)	<i>Schistosoma</i> trematodes	Americas, Africa, Asia	Mortality and large-scale debilitation (McManus <i>et al.</i> 2018); disproportionate effects on marginalized groups (King 2010)
(4) Lymphatic filariasis	1,628,649	Mosquito (<i>Anopheles</i> , <i>Culex</i> , <i>Aedes</i> , <i>Mansonia</i> ,	<i>Wuchereria</i> and <i>Brugia</i> nematodes	Americas, Africa, Asia	Social stigmatization (Evans <i>et al.</i> 1993); mortality in warfare (Swartzwelder 1963; Leggat & Melrose 2005); reduction of

		<i>Ochlerotatus</i>)			economic output and increase in poverty (World Health Organization 1999; Ottesen 2000)
(5) Onchocerciasis	1,230,433	Black fly (<i>Simulium</i>)	<i>Onchocerca</i> nematode	Americas, Africa	Depopulation of riverine regions (Bradley 1976); psychosocial effects and female marriage age delay (Amazigo 1994; Wagbatsoma & Okojie 2004)
(6) Leishmaniasis	696,703	Sand fly (<i>Phlebotomus</i>)	<i>Leishmania</i> protozoa	Americas, Africa, Europe, Asia	Pre-Incan marker of religious significance (Bourget 2016); biowarfare and exacerbation of Syrian refugee crisis (Alawieh <i>et al.</i> 2014)
(7) Japanese encephalitis	431,552 (Labeaud <i>et al.</i> 2011)	Mosquito (<i>Culex</i>)	JEV flavivirus	Asia	Changing agricultural practices through integrated vector management (van der Hoek <i>et al.</i> 2001; Keiser <i>et al.</i> 2005)
(8) Yellow fever	290,137	Mosquito (<i>Aedes</i> , <i>Haemagogus</i> , <i>Sabethes</i>)	YFV flavivirus	All inhabited continents	Colonialism and slavery (Berlin 2009; Bell 2010; McNeill 2010); racism and gaslighting (Jones & Allen 1794; Hogarth 2019); social hierarchy and power (Olivarius 2016)
(9) Chagas disease	275,377	Triatomine bug (<i>Triatoma</i>)	Trypanosoma protozoa	Americas	Settlement patterns in the Amazon (Coimbra 1988); improved safety of blood products (Dias <i>et al.</i> 2002); control efforts leading to greater

					sense of citizenship and rural community stability (Briceño-León <i>et al.</i> 1990)
(10) African trypanosomiasis	82,615	Tsetse fly (<i>Glossina</i>)	Trypanosoma protozoa	Africa	Colonization barrier and slave selection (Lambrecht 1980; Steverding 2008); migratory and pastoral practices (Lambrecht 1964; Gifford-Gonzalez 2000); political centralization (Alsan 2015)

* Although plague is contemporarily not in the top-10 VBDs ranked by DALY burden, it did indeed top the charts historically (i.e., Black Death, Plague of Justinian, etc). Plague was thus chosen as one of the four focal diseases highlighted in this paper.

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