COMPUSCIO

SHORT COMMUNICATION

9

Global Infectious Diseases in March 2023: Monthly Analysis

Taihan Li^{1,#}, Yi Luo^{1,#}, Jiazhen Zou¹, Yufan Wu¹, Yinfu Sun¹, Qi Xiang¹, Minjing He¹, Shuqiong Zhang¹, Dongliang Liu¹, Guodan Li¹, Wenjin Yu², Qun Su^{3,*} and Dayong Gu^{1,*}

ABSTRACT

Infectious diseases pose a major burden on public health and economic stability among societies worldwide. For centuries, they have been among the leading causes of death and disability, and are currently presenting growing challenges to health security and human progress. This report focuses on global outbreaks of infectious diseases, relying on Shusi Tech's Global Epidemic Information Monitoring System to systematically summarize outbreak timing and location in infected populations from February 24, 2023, to March 23, 2023. Therefore, surveillance of infectious diseases on a continental scale is important to assess, recognize and protect against the risks that these diseases may pose to animal, domestic animal and human health on a global scale.

Keywords: Infections disease, COVID-19, Dengue, MPOX

INTRODUCTION

As human societies grow in size and complexity, endless opportunities arise for genetically unstable infectious agents to occupy the unfilled ecologic niches that continue to be created. Emerging and reemerging infectious diseases are epiphenomena of human existence, involving human interactions with one another and with nature. The twenty-first century has witnessed a wave of severe infectious disease outbreaks, notably the Coronavirus (COVID-19) Disease-19 pandemic, which has had devastating effects on lives and livelihoods worldwide. The 2003 severe acute respiratory syndrome coronavirus outbreak, the 2009 swine flu pandemic, the 2012 Middle East respiratory syndrome coronavirus outbreak, the 2013-2016 Ebola virus disease epidemic in West Africa and the 2015 Zika virus disease epidemic all resulted in substantial morbidity and mortality while spreading across borders and infecting people in multiple countries. However, in the past two decades, medical advances, access to health care and improved sanitation have decreased the overall mortality and morbidity associated with infectious diseases, particularly for lower respiratory tract infections and diarrheal diseases. The rapid development of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccine highlights the efficacy of modern science in rapidly countering threats from emerging pathogens. Nevertheless, the infectious disease burden remains substantial in countries with low and lower-middle incomes, and the mortality and morbidity associated with neglected tropical diseases, HIV infection, tuberculosis and malaria remain high.

By regularly compiling and analyzing global infectious disease development and visualizing the distribution of diseases with Shusi Tech's Global Epidemic *Taihan Li and Yi Luo have contributed equally to this work.
*Corresponding authors:
E-mail: 1135529689@qq.com (QS), wanhood@163.com,
Tel: +86-13602601597 (DG)

¹Department of Laboratory Medicine, Shenzhen Second People's Hospital, The First Affiliated Hospital of Shenzhen University, Health Science Center, Shenzhen, China ²Shenzhen Data Thinking Corporation, Shenzhen, China ³School of Computer and Information Engineering, Xiamen University of Technology, Xiamen, Fujian, China

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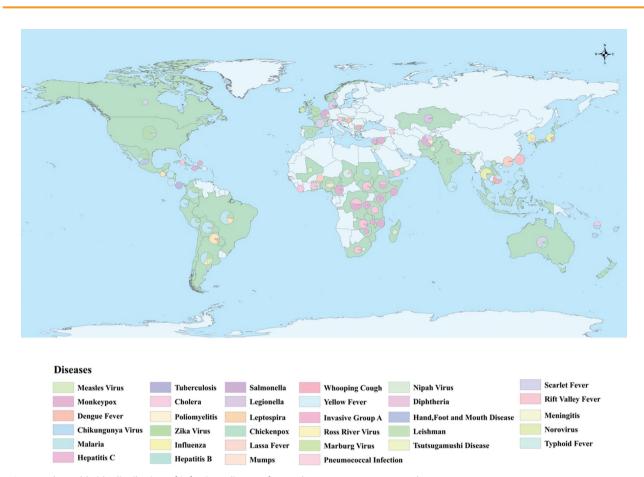


FIGURE 1 | Worldwide distribution of infectious diseases from February 24, 2023, to March 23, 2023.

Information Monitoring System, we assessed the prevalence of infectious diseases worldwide and described other types of infectious diseases with relatively low incidence from January 24, 2023 to February 24, 2023, to the greatest extent possible (Fig 1).

COVID-19

SARS-CoV-2 is a deadly addition to the many microbial threats to humans. It forces us to adapt, react and reconsider the nature of our relationship to the natural world. Globally, nearly 3.6 million new cases and more than 25 000 deaths were reported in the past month (February 27 to March 26, 2023), representing a 27% and 39%, decrease, respectively, with respect to February (Fig. 2). Despite this overall decrease, several countries have reported significant increases in cases. As of March 26, 2023, more than 761 million confirmed cases and 6.8 million deaths have been reported globally.

MPOX

After the COVID-19 pandemic, Mpox has been the most recent zoonotic infection of global public health concern [1, 2]. The origin, reservoirs and sylvatic cycle of the virus in the natural ecosystem remain to

be confirmed. Humans acquire infection through contact with infected animals, humans and natural hosts. The major drivers of disease transmission include trapping, hunting, bushmeat consumption, animal trade and travel to endemic areas. The United States continues to have the highest cumulative number of confirmed cases of Mpox as of March 2023. Some studies have reported household-to-pet transmission as the main route. Notably, two indigenous cases were found in Taiwan, China, on March 1, 2023, owing to the presence of five infected visitors to the region (Table 1). The main objective in the prevention and control of Mpox should be avoiding multi-country outbreaks and preventing human-animal viral transmission. In infection prevention and control efforts, vaccination should be considered as an additional measure [3].

CHOLERA

Cholera, caused by *Vibrio cholerae*, persists in developing countries because of inadequate access to safe water, sanitation and hygiene. The disease is transmitted through the fecal-oral route via contaminated food or water. Severe dehydrating cholera can progress to hypovolemic shock, owing to the rapid loss of fluids and electrolytes, which

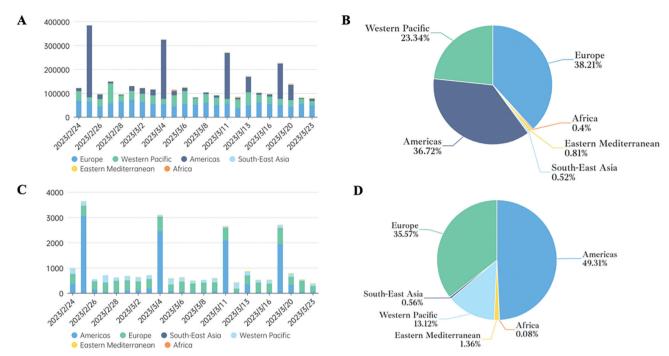


FIGURE 2 | Statistics on new confirmed cases and deaths due to COVID-19 worldwide daily. A, C: New cases and deaths due to COVID-19, reported daily on every continent. B, D: Continent-specific proportions of new confirmed cases and deaths due to COVID-19 (February 24, 2022 to March 23, 2023; data were obtained from the World Health Organization website: https://COVID19.who.int/).

requires rapid infusion of intravenous fluids [4]. Haiti remains an area of *Vibrio cholerae* outbreak, and approximately dozens of cases are confirmed each week (Table 2). In general, the prevalence of cholera remains high, and is associated with economic and health care status in the African region.

DENGUE

Dengue virus, an arbovirus, is a prevalent tropical disease causing many casualties every year. No therapeutics are currently available against the viral disease, and the only available medications provide symptomatic relief [5]. The number of suspected dengue infections since 2023 has been heavily concentrated in Brazil, the Philippines, Colombia and Peru, and the number of confirmed cases has reached more than 1000 in Argentina (Table 3). One confirmed case has been reported in Hong Kong, China.

MEASLES

Measles is an acute viral infectious disease usually characterized by erythematous maculopapular rash, and sometimes pneumonia, diarrhea, and central nervous system disturbance [6]. Measles outbreak areas persist in Africa and the Middle East. Wars in Afghanistan and Iran, and the harsh environment of Yemen have been factors influencing disease outbreaks (Table 4). These areas tend to lack medical resources, and most people do not have funds for vaccination.

INFLUENZA

Co-circulation of influenza and SARS-CoV-2 has the potential to place considerable strain on health care services. The morbidity of influenza has decreased with COVID-19 prevention measures. Indeed, influenza has been largely ignored in the era of COVID-19. However, influenza has not disappeared. In Australia, France, the United States and Denmark, more than 1000 confirmed cases of influenza are reported each month, although no deaths have been reported (Table 5). Influenza outbreaks often occur in the spring and fall. Effective antiviral drugs are essential.

CHIKUNGUNYA VIRUS

The Togaviridae family comprises a large and diverse group of viruses responsible for recurrent outbreaks in humans. In this family, the Chikungunya virus is an important alphavirus responsible for substantial morbidity, mortality and economic effects on humans worldwide. In the past month, Chikungunya virus infection has increased significantly in Paraguay (Table 6); its growth rate has exceeded that in January and February of 2023, and is even more severe than that in the fourth quarter of 2022. Peru also has a high incidence of Mpox and dengue fever. Ideally, the local government will take measures to effectively control the development of the outbreak.

TABLE 1 | Worldwide Mpox cases reported between 23/02/2023 and 24/03/2023.

Record period	Location	Cumulative confirmed cases reported during the record period	Cumulative deaths reported during the record period	Data source
27/05/2022-08/03/2023	Argentina	1112	2	WHO
01/01/2022-07/03/2023	Australia	144		
01/01/2022–21/03/2023		145		
08/06/2022–24/02/2023	Brazil	10846	15	Brazilian Ministry
08/06/2022-03/03/2023		10862	15	of Health
08/06/2022-10/03/2023		10874	15	
01/01/2022-03/03/2023	Democratic Republic	419		WHO
01/01/2022-17/03/2023	of the Congo	439		
23/03/2022–14/03/2023	Colombia	4088		
01/01/2022-14/01/2023	South Korea	5		
18/05/2022-01/03/2023	United States	30225	38	U.S. CDC
18/05/2022–15/03/2023		30262	28	
26/06/2022–26/02/2023	Peru	3764	17	WHO
26/06/2022-08/03/2023		3774	20	
26/06/2022–17/03/2023		3776	20	
28/05/2022–23/02/2023	Mexico	3387	4	
28/05/2022–28/02/2023		3877	4	
28/05/2022-06/03/2023		3928	4	
01/01/2022-01/03/2023	Nigeria	805	8	
01/01/2022-17/03/2023		820	9	
01/01/2022-18/02/2023	Japan	20		
01/01/2022-07/03/2023		27		
01/01/2022-14/03/2023		31		
01/01/2022–21/03/2023		59		
01/01/2022-14/03/2023	Thailand	16		
19/05/2022–23/02/2023	Spain	7543	3	
19/05/2022–17/03/2023		7546	3	
01/01/2022-18/02/2023	Singapore	21		
01/01/2022–21/03/2023	New Zealand	41		
01/01/2022–18/02/2023	India	22		
06/05/2022-08/03/2023	Britain	3738		
21/01/2022-08/03/2023	Chile	1434	2	
24/06/2022–21/02/2023	Taiwan, China	5		Outbreak News
24/06/2022-01/03/2023		7		Today
24/06/2022-04/03/2023		12		

TABLE 2 | Worldwide cholera cases reported between 23/02/2023 and 24/03/2023.

Record period	Location	Cumulative suspected cases (confirmed cases) reported during the record period	Cumulative deaths reported during the record period	Data source
12/02/2023–18/02/2023	Afghanistan	2244	1	WHO Regional Office for
19/02/2023–25/02/2023		2839	1	the Eastern Mediterranean
27/08/2022–02/02/2023	Ethiopia	1068 (39)	28	UN Office for the
27/08/2022-05/03/2023		1597	38	Coordination of Humanitarian Affairs
01/01/2023-04/03/2023	Burundi	145	1	WHO Regional Office for
01/01/2023-10/03/2023		166 (66)	1	Africa
20/10/2022–22/02/2023	Dominican Republic	(82)		WHO
20/10/2022–19/03/2023		(96)		
01/01/2023-19/02/2023	Democratic Republic	3677 (361)	18	WHO Regional Office for
01/01/2023–26/02/2023	of the Congo	4748 (417)	19	Africa
02/10/2022–18/02/2023	Haiti	32314 (2365)	584	Ministry of Public Health and Population of Haiti
02/10/2022–24/02/2023		33185 (2398)	594	WHO Office for the Americas
02/10/2022-06/03/2023		35255 (2461)	594	Ministry of Public Health
02/10/2022-09/03/2023		35490 (2495)	594	and Population of Haiti
02/10/2022-16/03/2023		36544 (2519)	631	WHO
12/02/2023–21/02/2023	Zimbabwe	25	2	WHO Regional Office for Africa
25/10/2021–26/02/2023	Cameroon	15275	310	UN Office for the Coordination of Humanitarian Affairs
16/10/2022–12/02/2023	Kenya	4845 (167)	85	WHO Regional Office for
16/10/2022–06/03/2023		6238	99	Africa
05/10/2022–22/02/2023	Lebanon	6576 (671)	23	Lebanese Ministry of Public
05/10/2022-02/03/2023		6705 (671)	23	Health
05/10/2022–15/03/2023		6938 (671)		
03/03/2022–26/02/2023	Malawi	(48815)	1547	WHO Regional Office for
03/03/2022-05/03/2023		(51287)	1605	Africa
03/03/2022-12/03/2023		(53464)	1643	
01/01/2023-18/02/2023	Bangladesh	(5)		WHO
14/09/2023-19/02/2023	Mozambique	5237 (99)	37	
14/09/2023-05/03/2023		7517 (187)	41	
14/09/2023-12/03/2023		8620	51	
03/02/2023–23/02/2023	South Africa	(5)	1	South African Department of Health
22/02/2023–07/03/2023	South Sudan	179 (2)	1	UN Office for the Coordination of Humanitarian Affairs
06/02/2023–12/02/2023	Somalia	196		WHO Regional Office for
20/02/2023–26/02/2023		341		the Eastern Mediterranean

TABLE 2 | (continued)

Record period	Location	Cumulative suspected cases (confirmed cases) reported during the record period	Cumulative deaths reported during the record period	Data source
22/01/2023–23/02/2023	Tanzania	29 (2)	3	WHO Regional Office for Africa
25/08/2022–15/02/2023	Syria	92649 (3049)	101	WHO Regional Office for the Eastern Mediterranean
20/01/2023–28/02/2023	Zambia	191	4	UN Office for the
20/01/2023-05/03/2023		215	5	Coordination of Humanitarian Affairs

TABLE 3 | Worldwide dengue cases reported between 23/02/2023 and 24/03/2023.

Record period	Location	Cumulative suspected cases (confirmed cases) reported during the record period	Cumulative confirmed cases (deaths) reported since 1/1/2023	Data source
01/06/2022–25/02/2023	Afghanistan	1330 (383)		WHO Regional Office for the Eastern Mediterranean
01/01/2023-04/03/2023	Argentina	2250 (1515)	(1)	WHO Regional Office for
12/02/2023-18/02/2023	Brazil	53028	54650 (12)	the Americas
19/02/2023–25/02/2023		37069	27433 (24)	
05/03/2023-11/03/2023	Bolivia	9058	14842 (50)	
19/02/2023–25/02/2023	Ecuador	424	(2)	
01/01/2023–28/01/2023	Philippines	7804	(22)	Philippine Ministry of Health
01/01/2023-18/02/2023		17136	(55)	
19/02/2023–25/02/2023		681	(61)	
12/02/2023-18/02/2023	Colombia	1918	6174	WHO Regional Office for
19/02/2023–25/02/2023		2294	7186	the Americas
26/02/2023-04/03/2023		1311	8403 (2)	
01/01/2023-04/03/2023	Honduras	1992	(1)	
01/01/2023-24/02/2023	Laos	(430)		Xinhuanet
01/01/2023-09/03/2023		(548)		
19/02/2023–25/02/2023	Malaysia	2145	(14)	Malaysian Ministry of Health
26/02/2023-04/03/2023		2062	(15)	
16/02/2023–22/02/2023	Bangladesh	(26)	708 (9)	Bangladesh Ministry of
23/02/2023–01/03/2023		(27)	735 (9)	Health and Family Welfare
02/03/2023-11/03/2023		(44)	779 (9)	
12/03/2023–20/03/2023		(30)	809 (9)	
12/02/2023-18/02/2023	Peru	2808	7175 (18)	WHO Regional Office for
19/02/2023–25/02/2023		3040	8847 (21)	the Americas
26/02/2023–04/03/2023		2589	10201 (26)	
05/03/2023–11/03/2023		2822	11510 (26)	
12/02/2023–18/02/2023	Mexico	908	958 (1)	
26/02/2023–04/03/2023		879	1181 (1)	
12/02/2023–18/02/2023	Nicaragua	1777	280	

TABLE 3 | (continued)

Record period	Location	Cumulative suspected cases (confirmed cases) reported during the record period	Cumulative confirmed cases (deaths) reported since 1/1/2023	Data source
11/02/2023–17/02/2023	Sri Lanka	1083		Sri Lanka Ministry of Health
18/02/2023-24/02/2023		1258		
04/03/2023-10/03/2023		1057		
28/07/2022–28/02/2023	Sudan	6501 (1612)		UN Office for the Coordination of Humanitarian Affairs
12/02/2023-18/02/2023	Singapore	148		Singapore Environment
26/02/2023-04/03/2023		112		Agency
12/02/2023-18/02/2023		151		
13/02/2023–19/02/2023	Vietnam	1967	(3)	WHO Regional Office for the Western Pacific
17/02/2023–23/02/2023	Hong Kong, China	(1)	7	Hong Kong, China Centre for Health Protection

POLIOMYELITIS

Poliomyelitis is an infectious disease arising after fecal-oral transmission and lymphatic replication. Before substantial global health efforts to control polio, this disease caused widespread morbidity and mortality in children during multiple epidemics between 1900 and 1950. Owing to worldwide vaccination efforts beginning in the 1980s, poliomyelitis is now considered almost completely eradicated. This disease primarily affects developing countries with poor sanitation. Since 2023, the People's Republic of the Congo has had the highest number of confirmed poliomyelitis cases; more than 20 people have been infected each month, and this number reached 50 in March (Table 7). In the first quarter, more than 100 people were infected, thus indicating that vaccination in the country is necessary.

SPORADIC INFECTIOUS DISEASES

Epidemiological trends in sporadic infectious diseases were observed over the past month. Several epidemic diseases are listed in Table 8, including diphtheria; diphtheria; leptospirosis; hepatitis C; hepatitis b; chickenpox; mumps; Lassa fever; whooping cough; Zika virus disease; typhoid fever; tuberculosis; bacillary dysentery; legionellosis; pneumococcal infection; norovirus infection; malaria; amoebic dysentery; meningitis; scarlet fever; leishmaniasis; Tsutsugamushi disease; hand, foot and mouth disease; Marburg virus disease; Nipah virus disease; group A streptococcus infection; and Ross River virus disease.

CONCLUSION

The WHO, in collaboration with national authorities, institutions and researchers, routinely assesses whether variants of SARS- CoV-2 alter transmission or disease characteristics, or affect the effectiveness of vaccines, therapeutics, diagnostics, or public health and social measures applied to control disease spread. Potential variants of concern, variants of interest or variants under monitoring are regularly assessed on the basis of their risk to global public health. Situations remain in which even relatively less severe variants of SARS-CoV-2 may have substantial effects, such as in populations with low prior immunity or settings with large numbers of individuals at high risk of severe COVID-19. The Omicron wave, because of its intensive circulation globally, led to large spikes in reported deaths in numerous countries, despite increased global immunity and a potentially lower intrinsic virulence.

Mpox outbreaks continue to wane in Africa and the Americas; however, sporadic cases and clusters are seen in the Western Pacific, mainly in Japan and Taiwan, China. The increase in the incidence and geographical distribution of arboviral diseases, including Chikungunya virus infection and dengue, is a major public health problem in the Americas [7]. In addition, higher transmission rates are expected in the coming months in the southern hemisphere, owing to weather conditions favoring the proliferation of mosquitoes. In 2022, the WHO launched the Global Arbovirus Initiative, an integrated strategic plan to combat emerging and re-emerging arboviruses with

TABLE 4 | Worldwide measles cases reported between 23/02/2023 and 24/03/2023.

Record period	Location	Cumulative suspected cases (confirmed cases) reported during the record period	Cumulative deaths reported during the record period	Data source
12/02/2023–18/02/2023	Afghanistan	779	3	WHO Regional Office for
19/02/2023–25/02/2023		869	2	the Eastern Mediterranean
01/01/2023–12/01/2023	Ethiopia	907 (466)		WHO Regional Office for Africa
01/01/2023-10/03/2023	Austria	(61)		European Union CDC
01/01/2023–25/02/2023	Paraguay	576		WHO Regional Office for
01/01/2023–25/02/2023	Brazil	154		the Americas
01/01/2023–30/01/2023	Democratic Republic	19437 (151)	174	WHO Regional Office for
13/02/2023–19/02/2023	of the Congo	4635	46	Africa
01/01/2023–25/02/2023	Colombia	135		WHO Regional Office for
01/01/2023–25/02/2023	Cuba	267		the Americas
01/01/2023-14/03/2023	Kazakhstan	(56)		Outbreak News Today
01/01/2023-17/02/2023	Ghana	502 (123)		WHO Regional Office for Africa
01/01/2023–29/01/2023	Cameroon	603		
26/06/2022-05/02/2023	Kenya	418 (105)	3	
13/12/2021-03/02/2023	Liberia	9200 (8732)	92	
01/01/2023–25/02/2023	Mexico	232		WHO Regional Office for the Americas
12/02/2023-18/02/2023	South Africa	(55)		ProMED-mail
19/02/2023–25/02/2023		(72)		
26/02/2023-04/03/2023		(74)		
01/01/2022-04/03/2023	South Sudan	4635 (4100)	47	WHO Regional Office for Africa
24/11/2022-10/03/2023	Nepal	(690)	1	WHO
01/01/2022–21/02/2023	Tanzania	3811 (710)	11	WHO Regional Office for Africa
01/01/2023-13/03/2023	Armenia	(50)		Outbreak News Today
01/01/2023–11/03/2023	Yemen	3674 (127)	34	UN Office for the Coordination of Humanitarian Affairs
13/06/2022-05/02/2023	Zambia	2137 (557)	31	WHO Regional Office for
01/01/2023–30/01/2023	Chad	459 (38)		Africa

epidemic and pandemic potential, focusing on risk monitoring, pandemic prevention, preparedness, detection and response, and building a coalition of partners.

As of March 16, 2023, confirmed cases have been reported from all provinces, and eight of nine South African provinces have declared measles outbreaks. No deaths associated with measles have been recorded. Most

cases (86%) have been reported among people 14 years of age. Community-based surveillance has been strengthened, and the Ministry of Health is conducting a mass measles vaccination campaign targeting children aged between 6 months and 15 years in all provinces.

The pandemic has exposed divisions and inequities within and between countries, as well as disparities in the

TABLE 5 | Worldwide influenza cases reported between 23/02/2023 and 24/03/2023.

Record period	Location	Cumulative cases (deaths) reported during the record period	Data source
23/01/2023–05/02/2023	Australia	1588	Australian Department of Health
02/01/2023-12/03/2023	Denmark	13418	WHO
02/01/2023-05/03/2023	France	13953	WHO
12/02/2023-18/02/2023	Canada	216	Public Health Agency of Canada
19/02/2023–25/02/2023		268	
26/02/2023-04/03/2023		326	
12/02/2023-18/02/2023	United States	833	U.S. CDC
19/02/2023–25/02/2023		682	
26/02/2023-04/03/2023		565	
05/03/2023-11/03/2023		666	
02/01/2023-05/03/2023	Norway	10666	WHO

TABLE 6 | Worldwide Chikungunya virus cases reported between 23/02/2023 and 23/03/2023.

Record period	Location	Cumulative suspected cases (confirmed cases) reported during the record period	Cumulative confirmed cases (deaths) reported since 1/1/2023	Data source
05/02/2023–25/02/2023	Argentina	623	161	WHO Regional Office for
12/02/2023-18/02/2023	Paraguay	9284	26223 (27)	the Americas
19/02/2023–25/02/2023		21633	30885 (33)	
26/02/2023-04/03/2023		7733	35997 (43)	
05/03/2023-11/03/2023		7834	44710 (51)	
12/02/2023–18/02/2023	Brazil	7262	5986	
19/02/2023–25/02/2023		3627	6794	
12/02/2023–11/03/2023	Bolivia	293		
01/01/2023-18/02/2023	Philippines	29		Outbreak News Today
01/01/2023-04/03/2023	Malaysia		97	Malaysian Ministry of Health
01/01/2023–18/02/2023	Peru	88 (56)		WHO Regional Office for
01/01/2023-04/03/2023		97 (59)		the Americas
05/03/2023-11/03/2023		13	59	
01/01/2023–25/02/2023	Guatemala	137		

ability to prepare for, prevent, detect and respond rapidly to epidemics, pandemics and other health emergencies among countries worldwide. COVID-19 had the worst effects on poor and vulnerable people, yet also provided a reminder that that infectious diseases have the power to upend health systems, societies and economies for even the most privileged people.

The risk of new health emergencies continues to increase, driven by escalating climate crisis, environmental degradation and geopolitical instability, which disproportionately affect the most poor and vulnerable people. Humanitarian crises affected 300 million people in 2022, thus placing people at increased risk of health emergencies.

 TABLE 7 | Worldwide polio cases reported between 23/02/2023 and 23/03/2023.

Record period	Location	Cumulative cases (deaths) reported during the record period	Data source
17/03/2023–17/03/2023	Pakistan	1	UN Office for the Coordination of Humanitarian Affairs
08/03/2023-14/03/2023	Benin	1	Global Polio website
17/03/2023–17/03/2023	Burundi	3	
15/02/2023–21/02/2023	Democratic Republic of the Congo	4	
22/02/2023–28/02/2023		21	
01/03/2023-07/03/2023		27	
08/03/2023-14/03/2023		6	
22/02/2023–28/02/2023	Cameroon	1	
15/02/2023–21/02/2023	Madagascar	1	
01/03/2023-07/03/2023		5	
22/02/2023–28/02/2023	Mali	1	
15/02/2023–21/02/2023	Mozambique	2	
08/03/2023-14/03/2023	Niger	1	
01/03/2023-07/03/2023	Nigeria	1	
22/02/2023–28/02/2023	Somalia	1	
15/02/2023–21/02/2023	Yemen	1	
22/02/2023–28/02/2023		1	
01/03/2023-07/03/2023	Israel	1	
01/03/2023-07/03/2023	Chad	1	

TABLE 8 | Worldwide cases of other infectious diseases reported between 23/02/2023 and 23/03/2023.

Record period	Location	Cumulative cases (deaths) reported during the record period	Cumulative cases (deaths) reported since 1/1/2023	Data source
Diphtheria				
01/01/2023-01/03/2023	Germany	11		European Union CDC
01/03/2023-01/03/2023	Latvia	1		ProMED-mail
12/02/2023-18/02/2023	Bangladesh	5	54	WHO
09/05/2022–19/02/2023	Nigeria	313 (89)		WHO Regional Office for Africa
06/02/2023-05/03/2023		102 (6)		Nigeria CDC
01/01/2023-06/03/2023	Switzerland	4		European Union CDC
09/03/2023-09/03/2023	Venezuela	3		Outbreak News Today
Salmonella infection				
23/01/2023–05/02/2023	Australia	614	1413	Australian Department of Health
12/02/2023-18/02/2023	United States	203	3034	U.S. CDC
19/02/2023–25/02/2023		198	3540	
26/02/2023-04/03/2023		201	4031	
05/03/2023-11/03/2023		246	4579	

TABLE 8 | (continued)

Record period	Location	Cumulative cases (deaths) reported during the record period	Cumulative cases (deaths) reported since 1/1/2023	Data source
05/03/2023–11/03/2023	Singapore	22	221	Singapore Ministry of Health
Leptospirosis				
01/01/2023-02/03/2023	Ecuador	18		ProMED-mail
01/01/2023-08/03/2023		32		Outbreak News Today
01/01/2023-12/03/2023		54		ProMED-mail
01/01/2023–28/01/2023	Philippines	271 (18)		Philippine Department of
01/01/2023–25/02/2023		725 (58)		Health
01/01/2023-04/03/2023		807 (71)		Outbreak News Today
01/01/2023–13/03/2023	Fiji	171		UN Office for the Coordination of Humanitarian Affairs
18/02/2023–24/02/2023	Sri Lanka	41	918	Sri Lanka Ministry of Health
25/02/2023-03/03/2023		101	1090	
04/03/2023-10/03/2023		124	1237	
11/03/2023–17/03/2023		151	1399	
01/02/2023–28/02/2023	Thailand	115	365 (1)	Thailand Ministry of Health
01/01/2023–28/02/2023	New Caledonia	65 (1)		Outbreak News Today
06/02/2023–28/02/2023	Indonesia	24 (3)		ProMED-mail
01/01/2023–16/03/2023	Vanuatu	32 (1)		Outbreak News Today
Hepatitis C infection				
12/02/2023–18/02/2023	South Korea	139	1044	South Korea CDC
19/02/2023–25/02/2023		108	1176	
26/02/2023-04/03/2023		110	1308	
05/03/2023–11/03/2023		125	1453	
12/02/2023–18/02/2023	Taiwan, China	16	85	China Taiwan Disease
19/02/2023–25/02/2023		16	101	Control Agency
26/02/2023–04/03/2023		6	107	
05/03/2023–11/03/2023		13	120	
Hepatitis B infection				
01/02/2023–28/02/2023	Thailand	384	1299	Thailand Ministry of Health
Chickenpox				
01/01/2023–21/02/2023	Bulgaria	7000*		ProMED-mail
01/01/2023–21/03/2023	Vietnam	3200		Outbreak News Today
Mumps				
12/02/2023–18/02/2023	South Korea	108	792	South Korea CDC
19/02/2023–25/02/2023		109	905	
26/02/2023–04/03/2023		112	1021	
05/03/2023-11/03/2023		158	1148	

TABLE 8 | (continued)

Record period	Location	Cumulative cases (deaths) reported during the record period	Cumulative cases (deaths) reported since 1/1/2023	Data source
19/02/2023–25/02/2023	Taiwan, China	6	37	China Taiwan Disease
26/02/2023-04/03/2023		4	41	Control Agency
Lassa fever				
26/02/2023–26/02/2023	Ghana	2 (1)		Outbreak News Today
01/03/2023-01/03/2023		12	14 (1)	
06/01/2022–01/02/2023	Liberia	84 (26)		WHO Regional Office for Africa
13/02/2023-19/02/2023	Nigeria	46 (9)	577 (94)	Nigeria CDC
20/02/2023–26/02/2023		59 (10)	636 (104)	
27/02/2023-05/03/2023		40 (5)	676 (109)	
Whooping cough				
01/01/2023-18/02/2023	Afghanistan	(15)		WHO Regional Office for
01/01/2023–25/02/2023		(15)		the Eastern Mediterranean
05/03/2023-11/03/2023	United States	52	617	U.S. CDC
Zika virus disease				
01/23/2023–25/02/2023	Brazil	1805*	120	WHO Regional Office for
01/01/2023-11/02/2023	Bolivia		152 (6)	Americas
01/01/2023-11/03/2023		6		
01/01/2023-11/02/2023	Colombia		56*	
01/01/2023-11/03/2023		65*		
27/02/2023–27/02/2023	Hungary	2		Outbreak News Today
Typhoid fever				
30/01/2023-05/02/2023	Democratic	(14)	(48)	UN Office for the
13/02/2023–19/02/2023	Republic of the Congo	(14)	(83)	Coordination of Humanitarian Affairs
01/01/2023–22/03/2023		12		Outbreak News Today
Tuberculosis				
12/02/2023–18/02/2023	South Korea	361	2610	South Korea CDC
19/02/2023–25/02/2023		332	2566	
26/02/2023–04/03/2023		292	2023	
05/03/2023–11/03/2023		403	3188	
19/02/2023–25/02/2023	United States	27	374	U.S. CDC
13/02/2023–19/02/2023	Japan	205	1513	Japan National Infectious
20/02/2023–26/02/2023		161	1706	Disease Research Institute
27/02/2023–05/03/2023		242	1996	
01/02/2023–28/02/2023	Thailand	564 (2)	1854 (5)	Thailand Ministry of Health
Bacillary dysentery				
08/09/2022–10/03/2023	Canada	211		ProMED-mail

TABLE 8 | (continued)

Record period	Location	Cumulative cases (deaths) reported during the record period	Cumulative cases (deaths) reported since 1/1/2023	Data source
Legionellosis				
26/02/2023–04/03/2023	United States	29	515	U.S. CDC
13/02/2023–19/02/2023	Japan	20	176	Japan National Infectious Disease Research Institute
20/02/2023–26/02/2023		25	204	
27/02/2023–05/03/2023		17	222	
12/02/2023–18/02/2023	Taiwan, China	7	43	China Taiwan Disease Control Agency
05/03/2023–11/03/2023		6	47	
12/02/2023–11/03/2023	Hong Kong, China	4	11	Centre for Health Protection, Hong Kong, China
Pneumococcal infection				
12/02/2023-18/02/2023	United States	229	2640	U.S. CDC
19/02/2023–25/02/2023		267	3073	
26/02/2023–04/03/2023		248	3425	
05/03/2023-11/03/2023		297	3962	
13/02/2023–19/02/2023	Japan	19	227	Japan National Infectious Disease Research Institute
27/02/2023–05/03/2023		20	286	
12/02/2023-18/02/2023	Taiwan, China	8	45	China Taiwan Disease Control Agency
19/02/2023–25/02/2023		11	56	
26/02/2023-04/03/2023		6	62	
05/03/2023-11/03/2023		10	72	
Norovirus infection				
06/02/2023–12/02/2023	Britain	359		British Health and Safety Authority
20/02/2023-05/03/2023		660		
13/03/2023–13/02/2023	Hong Kong, China	20		Centre for Health Protection, Hong Kong, China
Malaria				
12/02/2023-18/02/2023	Bangladesh	4	14	WHO
13/02/2023–19/02/2023	Democratic Republic of the Congo	781610 (863)	2203630 (2547)	UN Office for the Coordination of Humanitarian Affairs
Amoebic dysentery				
01/02/2023–28/02/2023	Thailand	116	269	Thailand Ministry of Health
Meningitis				
15/02/2023–15/02/2023	Togo	10 (7)		Outbreak News Today
02/06/2022–23/02/2023	Democratic Republic of the Congo	(76)		WHO Regional Office for Africa
01/06/2022–11/03/2023	United States	12	3	Outbreak News Today
01/10/2022–18/02/2023	Nigeria	91	54	WHO Regional Office for Africa

TABLE 8 | (continued)

Record period	Location	Cumulative cases (deaths) reported during the record period	Cumulative cases (deaths) reported since 1/1/2023	Data source
Scarlet fever				
01/01/2023–21/02/2023	Bulgaria		1402	ProMED-mail
12/02/2023–26/02/2023	Britain	2606	47084	British Health and Safety Authority
27/02/2023–12/03/2023		2288		
Rift Valley fever				
23/02/2023–23/02/2023	Niger	1	1	WHO Regional Office for Africa
01/03/2023-01/03/2023	Uganda	12		
Leishmaniasis				
01/01/2023–21/02/2023	Brazil		(2)	ProMED-mail
30/01/2020-05/02/2023	Kenya	1996 (10)		WHO Regional Office for Africa
03/01/2020–12/02/2023		2005 (10)		
Tsutsugamushi disease				
01/02/2023–28/02/2023	Thailand	166	557	Thailand Ministry of Health
Hand, foot and mouth dis	sease			
01/02/2023–28/02/2023	Thailand	2886	6762	Thailand Ministry of Health
01/01/2023–25/02/2023	Philippines	2407		Outbreak News Today
Marburg virus disease				
01/03/2023-01/03/2023	Equatorial Guinea	(2)	(11) 29	WHO
13/03/2023–20/03/2023		8 (6)		
Nipah virus disease				
01/01/2023-04/03/2023	Bangladesh	14 (10)		Outbreak News Today
Group A streptococcus in	fection			
23/01/2023–05/02/2023	Australia	77	259	Australian Department of Health
02/10/2022–25/02/2023	Ireland	152 (6)		Health Protection Monitoring Centre of Ireland
02/10/2022-15/03/2023		179 (16)		
13/02/2022–26/02/2023	Britain	97		British Health and Safety Authority
27/02/2022–12/03/2023		237		
Ross River virus disease				
23/01/2023-05/02/2023	Australia	119	302	Australian Department of Health

^{*}indicates suspected but not confirmed cases.

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CONFLICT OF INTEREST STATEMENT

The authors declared no potential conficts of interest with respect to the research, authorship, and publication of this article.

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