



WHO

General Assemblies

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Topic 1
Establishing a framework to
address addictive digital use
patterns

Topic 2
Preparedness for climate-linked
disease outbreaks

October 5-6, 2026

Committee
World Health Organization

Georgia Tech
Model United Nations

Bridging technology and diplomacy.



Georgia Tech
Model United Nations

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#GTMUN2026



Letter from the Secretary General



Esteemed delegates,

My name is Henry Bui, your Secretary General for the 2026 edition of the Georgia Tech Model United Nations Conference, also lovingly known as GTMUN. As your Secretary General, I would like to give you all a warm welcome as you begin your journey this conference cycle.

Every year at GTMUN, we see hundreds of you delegates spend hours speaking about your ideas, deliberating with others about the efficacy of solutions, and collaborating with compatriots to draft extensive resolutions. It is always impressive to see each delegate's ability to tackle these very significant issues affecting the real world today, proposing novel solutions, creatively applying international policy, and synthesizing resolutions that solve these urgent questions comprehensively and on a global scale.

I am especially excited to see everything you all will achieve this October. With over 1,000 delegates attending, this will be the largest GTMUN to date, and with it, we are bringing you 18 diverse committees to further test your abilities. Each committee has been carefully crafted to open unique perspectives and to allow each delegate to apply their skills in possibly new, unique ways. I hope that in the midst of being lost in deep research rabbit holes and hours of debate in each session, you all are satisfactorily challenged and that you all leave with joy and excitement in the work you accomplish.

Outside of the Scheller building where you will debate for two days, you will find that many of the skills you have used will be applicable to other aspects of your professional career: your ability to speak publicly, to improvise and adapt, and to act diplomatically. As a computer science student and teaching assistant, I have found that my experience in Model UN has been some of my most valuable. It has taught me to be confident in what I say, and it has taught me how to work with people with all different kinds of backgrounds and perspectives. One of our core values at Georgia Tech is that we thrive on diversity, and that is something that shines strongly at GTMUN.

As you prepare for committee, I want you to remember the most important thing you should get out of GTMUN—even more important than demonstrating your abilities or honing your skills for your professional career—is having fun. Not every speech has to be perfect, and not every unmoderated caucus has to go your way! Take the opportunity to try eccentric things in your speeches and diplomatic approach, and take the opportunity to meet new people. Do not forget that you are surrounded by many others who have similar goals, aspirations, and interests as you do! You might find a future close friend. Though competing is quite fulfilling (and the prospect of awarding is exciting), it can also be very stressful, so it is critical to find joy in what you are doing.

Once again, we, the GTMUN Secretariat, are excited to see everything you will achieve.

Good luck & have fun,

Henry Bui

Secretary General of GTMUN 2026



What is a *Position Paper*?

A position paper is a paper which describes how a country intends to address the topics of the committee, detailing tangible solutions to committee issues and connection to the country's policies. A position paper should contain details for each topic that will be addressed by the committee.

Formatting Requirements

- 12-point font, double spaces Times New Roman
- 1-2 pages per topic (excluding Works Cited page)
- A Works Cited page with citations in MLA format
- Files submitted in .pdf format with title "GTMUN26_COMMITTEE_COUNTRY.pdf"
- e.g., "GTMUN26_DISEC_Germany.pdf" or "GTMUN26_UNEP_United_States.pdf"

Start Each Topic Page With

- Committee: [Name of committee]
- Delegation: [Name of delegation]
- Topic: [Topic name/decription]

Position Paper Rubric

In order to be eligible for awards, delegates must submit a position paper and receive a score of at least 12/20 (for single-topic committees) or 24/40 (for double-topic committees). Refer to the next page for the exact scoring guidelines.

Our AI Policy

Delegates are expected to be drafting documents during the span of the conference using their own thoughts and ideas. As such, GTMUN **does not permit** plagiarism, pre-writing, or the use of generative AI during conferences.

- Plagiarism is the act of using another individual's work or writing and passing it as one's own without proper citation or credit. This includes writing from other delegates in the committee or from online sources.
- Pre-writing is the act of writing material for in-conference documents (e.g., working papers, draft resolutions, crisis directives) ahead of the conference. While doing prior research and bringing research notes is permitted (and encouraged), these notes should not contain text that is intended to be directly copied and pasted into a document. Suspicion of pre-writing is subject to the chair's discretion.
- Generative AI tools (such as ChatGPT, Claude, and Gemini) cannot be used to partially or wholly write a conference document. GTMUN recognizes the rapidly evolving landscape of artificial intelligence engines as a tool for research. Though discouraged, GTMUN accepts the use of such tools to locate resources and brainstorm starting solutions. However, generative AI must not be used to generate content for the conference, such as in-conference documents and position papers. GTMUN encourages the development of creative, unique solutions in committee and knows delegates are more than capable of producing such ideas without relying on generative AI.

Delegates that violate the writing policy will face consequences that may include disqualification from awards.

	Great (5)	Good (4)	Adequate (3)	Poor (1)
Background	- Detailed description of the topic (including dates and stakeholders) - Several facts and statistics - Discusses many relevant UN documents and resolutions	- Basic description of topic (including some dates and stakeholders) - Some facts and statistics - Discusses some relevant UN documents and resolutions	- Minimal description of topic (with no or few dates and stakeholders) - Few facts and statistics - Misses some key relevant UN documents and resolutions	- Unclear or incorrect description of topic - Incorrect or missing facts or statistics - No mention of relevant UN documents and resolutions
Policy	- Country's detailed history with issue - Detailed present position (or a strongly-defended inferred position) of country - Several references to statements from appropriate officials or documents - Several facts and statistics	- Country's basic history with issue - Present position (or reasonable inferred position) of country - Some references to statements from appropriate officials or documents - Some facts and statistics	- Sparsely describes country's history with issue - Present position (or basic inferred position) of country - Few references to statements from appropriate officials and documents - Few facts and statistics	- Incorrect or missing description of country's history with issue - Incorrect present position (or unreasonably inferred position) of country - No references to statements from appropriate officials and documents - Incorrect or missing facts and statistics
Solutions	- Detailed personal objectives - Proposes well-supported potential solutions - Identifies delegates to work with and provides strong reasoning for selections - Actionable, reasonable solutions which are within the scope of the committee	- Expresses personal objectives - Proposes reasonable potential solutions - Identifies delegates to work with and provides reasonable justification for selections - Actionable solutions within the scope of committee	- States personal objective - Proposes potential solutions - Identifies delegates to work with - Actionable solutions	- No proposed goals or plans - No potential collaborators mentioned - Implausible or missing actionable solutions
Mechanics	- No grammar, spelling, or punctuation errors - Numerous and diverse citations from appropriate sources	- Few grammar, spelling, or punctuation errors - Citations from appropriate sources	- Some grammar, spelling, or punctuation mistakes - One or two citations from inappropriate sources	- Many grammar, spelling, or punctuation mistakes - No citations from appropriate sources

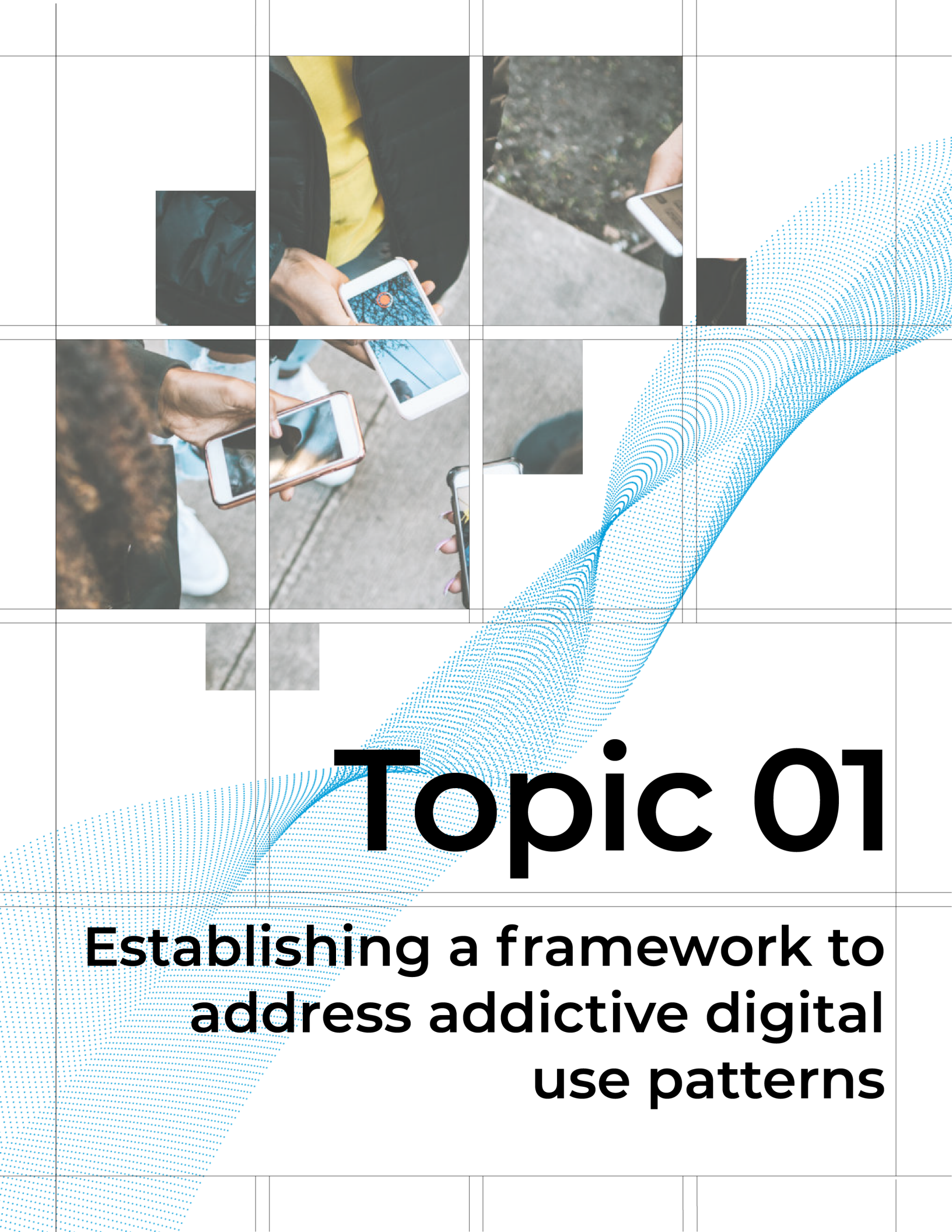
Introduction to Committee

The World Health Organization (WHO) is the ECOSOC focused on promoting health, keeping the world safe, and serving the vulnerable. WHO, which came into force on April 7, 1948, has since focused on expanding worldwide health coverage, preparing for health emergencies, and promoting health and well-being through technical reports.

WHO consists of 193 member states and is governed through the World Health Assembly, which meets to approve WHO's work programme and budget its work. The committee will focus on legislating two topics: (1) establishing a framework to address addictive digital use patterns and (2) preparedness for climate-linked disease outbreaks.

Disclaimer

Model United Nations provides an opportunity for delegates to engage diplomatically with topics of global importance and explore possibilities for conflict resolution in a meaningful way. Many of the topics at hand may involve sensitive or controversial subject matter. We ask delegates to be respectful and professional when engaging with their committee and communicating with fellow delegates and GTMUN Conference staff. The content warning below is meant to warn you of potentially controversial topics that are present in the content of this background guide, as well as content that may appear in other aspects of the committee (e.g. debate, speeches, directives), so that you can prepare yourself before reading this background guide and participating in the committee. At GTMUN, we take equity violations very seriously and require delegates to fully comply with our equity guidelines. Failure to do so will result in an immediate disqualification from awards, and you may be asked to leave the conference. Please remain respectful in committee, and avoid overgeneralizations as well as take into account individual differences and contexts during your speeches. If you have any questions regarding our equity guidelines, we encourage you to contact one of our staff members. If, because of this committee's content warning, you have any questions or concerns, please feel free to reach out to our staff via email at gtmunconference@gmail.com.

The background of the slide features a grid of images showing various people using smartphones. A prominent blue dotted wave pattern flows diagonally across the right side of the slide, starting from the top right and moving towards the bottom left.

Topic 01

**Establishing a framework to
address addictive digital
use patterns**

Key Terms and Acronyms

<i>Social networks/social media</i>	Spaces on the internet where users form communities and share information, messages, photos, videos
<i>(Video) Gaming</i>	The act of playing electronic interactive games, which are games with highly visual components often played on home computers or dedicated gaming consoles
<i>Gaming disorder</i>	Impaired control over gaming, specifically when gaming is given priority over other activities despite negative mental harms
<i>Impulse control disorder</i>	Disorder characterized by a failure to resist a temptation, urge, or impulse to engage in some behavior
<i>Addictive disorder</i>	Disorder characterized by persistent or intense urges to engage in some behavior despite substantial harm in the behavior
<i>Problematic Smartphone Use (PSU)</i>	Psychological dependence on cell phones
<i>Problematic Social Media Use (PSMU)</i>	Excessive use of social media which can result in a reduction in mental health problems like overall wellbeing or self-esteem
<i>WEIRD</i>	Western, Educated, Industrialized, Rich, and Democratic; Psychological studies often tend to be biased towards this group

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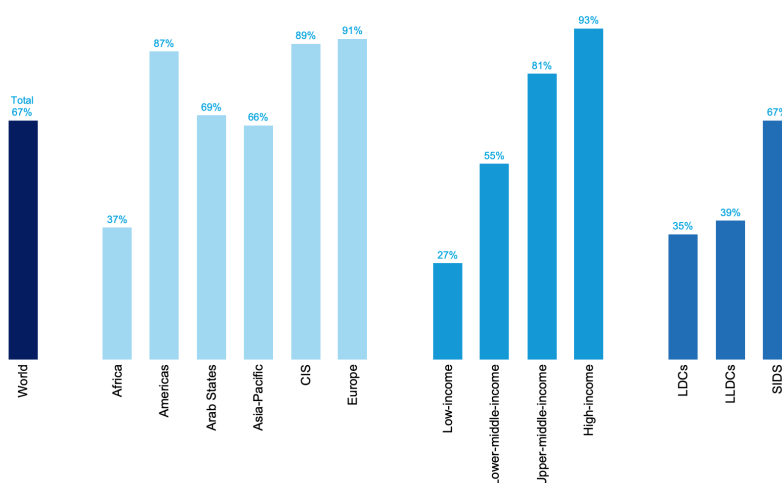
Introduction

The advent of the internet has clearly revolutionized global communication, allowing people from around the world to learn about other cultures, share information, and build global communities at a scale unprecedented in human history. As of 2023, about two-thirds of the global population—a staggering 5.4 billion people—now have access to the internet (International Telecommunication Union, 2023), and its prevalence continues to grow with no signs of slowing. In high-income countries, internet use is already nearly universal with 93% of the population having access. In low-income countries, though the rate of internet use is significantly lower (only 27% of citizens have access), these countries are also the regions seeing the most growth with a noted 44.1% increase in users from 2020 to 2023.

However, with the ubiquity of the internet, especially amongst impressionable youth, there are anxieties about how excessive internet usage could create issues with physical or mental health (World Health Organization, 2015). Such concerns include sedentary lifestyles encouraged by excessive screen time, increased accident rates due to distraction, diminishing social development due to decreased face-to-face interaction, sleep deprivation, decreased self-worth, and decreased academic or work performance. Though excessive internet usage is associated with these issues, there continues to be debate from experts about whether behaviors associated with excessive internet usage constitute a mental disorder (Cash et al., 2012), and there lacks a successful public health response to such issues.

Though general internet addiction has yet to be formally recognized, the World Health Organization (WHO) does recognize a smaller subset in the form of gaming disorder. In May 2019, WHO officially adopted the 11th revision of its International Classification of Diseases (ICD-11), which formally recognized gaming disorder, an addictive disorder characterized by at least 12 months of impaired control over video gaming (World Health Organization, 2026). In formally recognizing the disorder, WHO aimed to standardize treatment and research into gaming disorder-like conditions, allowing researchers to be able to discuss and address gaming disorder more effectively (Darvesh

Percentage of individuals using the Internet by region (2023)



Percentage of individuals using the Internet by region (2023)

et al., 2020). A similar approach could be taken to address more general issues with “internet addiction” or “excessive internet usage.”

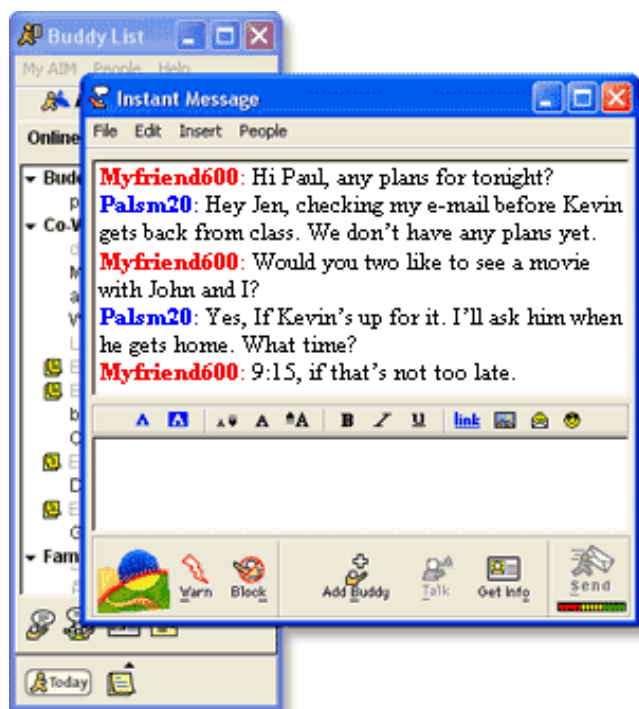
Without more holistic research and understanding of the many different facets of internet use and addiction, it is difficult to say how effective and wide-reaching these measures will prove to be. This necessitates a global response in developing a framework that balances addressing addictive digital use patterns while preserving beneficial technological outcomes.

History

The internet would be introduced to the public eye with the establishment of the World Wide Web by Tim Berners-Lee in 1989. Almost immediately, the internet would become a ubiquitous and international phenomenon. By 1993, there were already 2.1 million hosts on the internet from over 43 different countries visiting 623 websites with an expected annual growth rate of 341,634% in service traffic (Cohen-Almagor, 2011). As the internet grew, it became easier to connect with people online. By 2001, advancements in internet speeds, visual displays, and storage capacity enabled widespread sharing of photos and videos, which would pave the way for social networks like Myspace, Facebook, YouTube, and Twitter.

The idea of “internet addiction” was identified rather early with the term first formally presented by Dr. Kimberly Young at the annual convention for the American Psychological Association in 1996. Before this, internet addiction was not viewed

as its own disorder, but rather, it was believed to be a symptom of an impulse control disorder (Young, 1998). However, Young argued that excessive internet usage resulted in symptoms similar to those of other addictive behaviors like gambling or alcohol usage. This included impairments to social relationships and academic performance. During the early 2000s, more concerns began to arise in psychiatric research as it was seen that mismanaged and uncontrolled internet use was linked to increased rates of depression and anxiety, poorer academic and workplace performance, and social isolation (Moretta et al., 2022). This caught the attention of the WHO, and it began adopting resolutions addressing internet health concerns starting in



AOL Instant Messenger, a widely used messaging app in 2001

2005. WHO began reviewing evidence for gaming behaviors during consultations for the ICD-11 between 2014 and 2018 (Aarseth et al., 2017). When ICD-11 was officially adopted in 2019 by WHO, gaming disorder was among its classified diseases (Moretta et al., 2022). Since then, the WHO has sought to increase awareness and formulate strategies and guidelines on combating digital health concerns. One of its most recent actions was the adoption of the Global Strategy on Digital Health in 2020–2025.

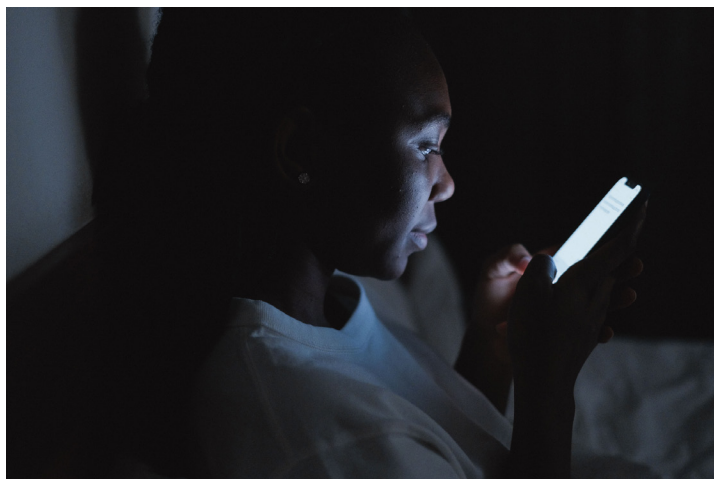
Key Milestones

2005	The World Health Assembly (WHA) passed resolution WHA58.28 on eHealth that urged Member States to “consider drawing up a long-term strategic plan for developing and implementing eHealth services... and to promote equitable, affordable, and universal access to their benefits” (World Health Organization, 2021)
2013	WHA adopted resolution WHA66.24 on eHealth standardization and interoperability, urging Member States to “develop policies and legislative mechanisms linked to an overall eHealth strategy” (World Health Organization, 2021)
2014	First WHO related research conducted related to the public health implications of excessive use of the Internet, computers, smartphones, and similar electronic devices (World Health Organization, 2015)
2018	The WHA adopted resolution WHA71.1, requesting that the Director-General work with Member States to develop a global strategy on digital health, identifying priority areas, including where the WHO should focus its attention (World Health Organization, 2021)

May 2019	The 72nd World Health Assembly officially adopts ICD-11 (World Health Organization, 2025)
2020	WHO launches its 5-year Global Strategy on Digital Health, which builds on previous resolutions to determine how to use technology to shape healthcare (World Health Organization, 2021)
Jan 2022	ICD-11 officially enters into effect among Member States (World Health Organization, 2025)

Current Issues

The internet and gaming provide incredibly important avenues to keeping people connected and serve as modes of relaxation. However, many aspects of both can lead to addictive behaviors, which can harm mental health. One such case is with social media: Hou et al. identified that those with problematic social media use, which afflicts at least 12% of social media users and are typically identified by uncontrollable urges to log into social media, tend to have increased stress, anxiety, and depression,



Woman scrolling phone in the dark

while having decreased long-term well-being. It is also noted that the instant gratification of social media can result in a positive feedback loop where urges to consume social media spiral into poor mental health and self-esteem, which further spirals into more social media consumption (Hou et al., 2019). Another such case is the concern of how internet addiction has affected social interactions by deprioritizing the importance of in-person connections. The presence of

phones, which enable an escape from awkward or silent moments in conversation, may inhibit the development of close relationships and trust during meaningful conversations (Przybylski & Weinstein, 2013). Thus, it is important to understand which internet uses can lead to problematic behaviors.

Though WHO has highlighted issues with internet addiction through reports and its formal classification of gaming disorder in ICD-11, there has only been mild attention

towards addressing the issue or preventing it from proliferating in developing nations. In 2017, during the 4th WHO meeting on the public health implications of addictive behaviors, WHO established the WHO Collaborative Project on the Development of New International Screening and Diagnostic Instruments for Gaming Disorder and Gambling Disorder, aimed at creating better diagnostics for identifying psychologically addictive behaviors such as gaming (Carragher et al., 2022). Though this project was planned for a 2023 completion and WHO has continued to hold meetings and forums regarding addictive behaviors, public information regarding the developments of the project or further actions to address gaming addiction is lacking. Additionally, though WHO has collaborated on studies finding increasing rates of problematic social media use, formal policies to address such increases have yet to be established.

Outside queries on treating internet addiction, there is also the question of how to properly hold companies accountable for inducing problematic social media use or exploiting it for personal gain. In the past year, both the European Union and United States have ramped up pressure on social media companies that design addictive apps that keep people locked in. Most publicly, in the United States, thousands of lawsuits were filed against various social media companies, including Meta and YouTube, accusing the companies of creating addictive apps that created observable mental health distress, such as anxiety and depression (Kang et al., 2026). They expressly cited the apps' implementations of infinite scroll, algorithmic recommendations, and insufficient parental controls and restrictions as reasons for the apps' addictiveness. In the courts, Meta relented, settling with 47 states for \$17.1 billion and promising to make major changes to reduce the addictive and harmful characteristics of their apps, including adding options to limit infinite scroll, impose time limits, and hide features that result in negative self-esteem—e.g., beauty filters and like counts (Kang & Tan, 2026). Though these lawsuits corroborate the addictive effects of social media and create a functional remedy for currently existing social media platforms, there still lacks an overall framework to hold emerging platforms or future developments accountable.

Case Studies

Gaming Restrictions in China and South Korea

A particularly simple and unsophisticated approach to curtailing internet addiction is to restrict access to the internet. Both China and South Korea have attempted this, establishing video gaming restrictions for youth for the express intention of reducing gaming addiction.

In 2019, China implemented measures to limit online gaming for minors, restricting them to 90 minutes per day and banning late-night gaming (10:00pm–8:00am).



Gamers in internet cafe in China

In 2021, they further tightened their mandates, restricting gaming only to Friday, Saturday, and Sunday for 1 hour (8:00pm–9:00pm) (Xiao, 2024). Though the express goal was to reduce internet addiction in youth, independent studies failed to show such reductions. Instead, it was observed that 77% of minors used other people's identities to circumvent restrictions, 59% moved to consuming media on less regulated platforms like Douyin (TikTok), and others switched

to non-Chinese gaming platforms that did not impose restrictions (Miron, 2025). The restrictions also harmed China's domestic video gaming industry, with Tencent and NetEase—China's two largest gaming companies who together hold a majority market share in China—dropping around 10% in stock after the 2021 restrictions were enacted (Miron, 2025). Though the gaming restrictions have yet to be lifted, it is clear that the restrictions are not helping much in reducing internet addiction within China.

South Korea implemented gaming restrictions even earlier than China, passing a law, known as the "shutdown law," which prohibited underage gamers from playing games between 12:00am and 6:00am in 2011 (Eun-byel, 2021). If a gaming company failed to comply with this policy, they risked a fine of 10 million won (\$8,560) or two years in prison. Like China's policy, there were doubts about the law's effectiveness. Following the law's enactment, youth's gaming rate was only observed to drop by 0.3% (Sang et al., 2017). South Korea's gaming restrictions can also similarly be circumvented, either by using a parent's account—which 55.7% of youth were observed to be doing in 2013—or by gaming on an overseas server, which did not have the same restrictions (Sang et al., 2017). Some also argued the law violated citizens' constitutional rights, particularly their rights to pursue happiness and to direct their children's education. The Korean Constitutional Court argued against this, claiming that restricting video game consumption was needed to protect youth and mitigate exposure to potential harm. Regardless, by 2021, the law was repealed, citing a need to respect youth rights and to encourage parent-oriented discretion (Eun-byel, 2021). In lieu of the shutdown law, the government instead hoped to provide informational programs to help families identify excessive gaming, allowing families to flexibly determine what limits they need to place for their youth.

Treatment for Gaming Disorder in the United Kingdom

In the United Kingdom, gaming disorder treatment is provided through their national health services via the National Centre for Gaming Disorders, a public health clinic established in October 2019, which specializes in treating gaming disorders (NHS England, 2023). Though the number of people interacting with the clinic is relatively small—only 745 people in the first 3 years of service were referred to the centre for treatment—it provides a central place to seek help when facing addiction harms. The clinic approaches gaming disorder similarly to other addictions, providing individual and group therapy sessions where people can share their experiences and feel comfortable seeking support. The clinic also provides telehealth services to allow anyone within the country to be able to receive treatments without needing to travel to a physical location. Though this clinic only specifically focuses on gaming disorders, it would not be hard to extrapolate similar ideas into problematic social media use and internet addiction overall.

Need for Cultural Research in Africa

Though rates of internet addiction are lower in Africa, partly due to overall less internet presence in the continent, the increasing proliferation of the internet highlights an increasing need to address this issue and pursue research in the area. A systematic review of 22 studies conducted between 2013 and 2021 spanning across countries such as Egypt, Ethiopia, Morocco, Nigeria, South Africa, Tanzania, and Tunisia found a high prevalence of internet addiction among youth, ranging from roughly 31% (in sub-Saharan Africa) to 45% (in northern Africa). However, these studies also revealed significant gaps in quality, moderate risk of bias, and low certainty, pointing to the need for more representative and reliable data within this region (Endomba et al., 2022).

The gaps in research quality are further accentuated by the fact that the overwhelming majority of problematic smartphone use studies derive psychological analyses through an individualistic Western lens (where internet use is prolific). Notably, 99% of studies studying problematic smartphone use are from Western, Educated, Industrialized, Rich, and Democratic (WEIRD) groups, while less than 1% analyze African groups (Khumalo, 2026). By failing to support African populations in psychological models of problematic smartphone use, these studies risk mischaracterizing norms under collectivist Ubuntu philosophy as disordered internet usage. Khumalo identifies various differences between WEIRD and African cultures which may result in vastly different usage patterns or interpretations: extremely frequent use of smartphones and messaging apps could instead signify a responsibility to stay connected with the local community; constant phone checking may be necessary in the face of unstable

infrastructure, and isolating social media scrolling behavior may be more urgently disruptive for collectivist communities than in individualistic communities. As such, analyses of internet addiction need to appropriately integrate the culture of each region in order to properly identify and treat issues that stem from it.

Directives / QARMAs

In the wake of rising internet access, how can WHO and member states balance the benefits of increased access with the prevention of digital addiction, especially among youth?

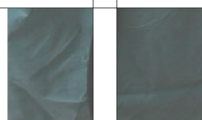
What sort of public health guidelines should governments adopt to reduce risks while still respecting civil liberties?

What standardized criteria should be used globally to define and measure harmful internet use?

In areas where studies are currently limited or inconsistent, how can data collection on internet addiction be improved?

How can digital education be integrated into school systems without restricting access to beneficial technology use?

How do we assert accountability for businesses that take advantage of internet use addiction?



Topic 02

**Preparedness for
climate-linked disease
outbreaks**

Key Terms and Acronyms

Vectors	Living organisms that can transmit infectious pathogens between humans or from animals to humans.
Sustainable Development Goals (SDGs)	Seventeen goals adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.
Globalization	Describes the growing interdependence of the world's economies, cultures, and populations brought about by cross-border trade in goods and services and flows of investment, people, and information.
Urbanization	The process through which cities emerge as central living spaces for growing populations, particularly those migrating from rural areas.
Disease Transmission	The process by which a pathogen such as a virus, bacterium, or parasite passes from an infected host or reservoir to a susceptible individual, enabling the spread of an infectious disease.
Climate Change	Refers to long-term shifts in temperature and weather patterns. Such shifts can be natural, but since the 1800s, human activities have been the main driver of climate change.
Fossil Fuels	A flammable carbon compound or hydrocarbon-containing material formed naturally in the Earth's crust from the buried remains of prehistoric organisms. Reservoirs of compound mixtures, such as coal, petroleum, and natural gas, are extracted to provide energy for direct use. The large-scale burning of fossil fuels has caused serious environmental damage.
Eradication	The process of getting rid of something completely or of destroying something normally considered undesirable.
Endemic	A disease that is always present in a population within a geographic area, typically year-round.

Introduction to the Topic

Climate-sensitive diseases are illnesses whose transmission and spread are influenced by changes in climate and weather patterns. Such diseases have in recent decades been responsible for increasing mortality and morbidity rates, placing a growing pressure on healthcare systems worldwide. Among them, vector-borne diseases (VBDs) represent one of the fastest-growing categories, as rising temperatures and shifts in rainfall patterns have facilitated a greater spread of pathogenic organisms to human populations. VBDs “are human illnesses caused by parasites, viruses, and bacteria that are transmitted by vectors”, such as mosquitoes, ticks, fleas, sandflies, and lice (World Health Organization, 2024). The impacts of these diseases have been highest in tropical and subtropical areas, as warm temperatures and high precipitation create suitable environments for insect vectors; however, as temperatures continue to increase, several vectors have expanded geographically and increased their periods of activity.

The impacts of VBDs disproportionately affect communities that experience the harshest health consequences despite contributing the least to global emissions. Many of these countries are not sufficiently prepared to care for those who are ill due to a lack of proper healthcare facilities and trained personnel to respond to these health threats. Major outbreaks, such as the Zika virus, dengue fever, and malaria, can overwhelm healthcare systems and disrupt entire societies.

Due to these circumstances, the World Health Organization (WHO), which is responsible for coordinating international public health efforts, monitoring disease outbreaks, and supporting global health initiatives, has urged the world to limit temperature rise to 1.5 degrees Celsius “to avert catastrophic health impacts and prevent millions of climate change-related deaths...” However, despite the creation



A close up of a female Anopheles mosquito feeding on human skin

of Sustainable Development Goals and numerous climate change mitigation campaigns, the implementation of measures to mitigate global warming has been underwhelming, with many countries still relying on reactive surveillance strategies and public health responses only being initiated after an outbreak has already occurred. Moreover, insecticide resistance and

parasite evolution have also further complicated diagnostic efforts and reduced the efficacy of countermeasures. As globalization continues, increased international travel and trade allow people to unknowingly introduce pathogens into new geographic regions, thus making “the line between safety and epidemic thinner than ever...” (Prasetyo et al., 2025).

While the WHO cannot pass binding resolutions, enforce laws, or infringe upon state sovereignty, it does play a crucial role in providing recommendations and encouraging global health guidelines to avert adverse health impacts. The international community must take collective action to address climate-linked illnesses, and as a delegate of this committee, you are tasked with proposing solutions to strengthen preparedness, promote health equity, and mitigate the impacts of climate-sensitive diseases.

History

Vector-borne diseases “are dynamically linked to feedback between environmental conditions, vector ecology, disease burden, and societal responses that drive transmission. As a result, VBDs have had a profound influence on human history” (Athni et al., 2021). From outbreaks such as the Black Death in the 14th century to more recent epidemics of dengue and chikungunya, VBDs have led to over one million deaths annually, altered the outcomes of wars, entrenched colonial hierarchies, and gave rise to massive global public health crises. Transmission of these diseases is highly dependent on environmental conditions; changes in climate have significantly influenced the distribution, abundance, and activity of disease-carrying vectors. The most visible sign of this climate change is the increase in global temperatures. Recently, the years of 2016 and 2020 have tied as the hottest years ever recorded. While shifts in temperature and weather patterns can occur naturally due to volcanic eruptions or solar activity, many of the detrimental effects seen in recent history have been driven by human activities, primarily the burning of fossil fuels. As noted by the United Nations, “climate scientists have shown that humans are responsible for virtually all global heating over the last 200 years.” The WHO has been increasingly working to address the intersection of climate change, the growing geographic spread of vector-borne diseases, and other climate-sensitive illnesses over the past 25 years.

From the 17th century to the early 20th century, vector-borne diseases were a dominant cause of mortality worldwide. Following major advancements in epidemiology and the discovery of mosquito-transmitted diseases, such as malaria, yellow fever, and dengue, environmental interventions were implemented, including the draining of swamps where mosquitoes inhabited and the widespread use of pesticides to reduce vector populations. These efforts enabled much of the world to experience decades without major VBD outbreaks. However, the loss of financial support for vector control programs and increasing concerns with pesticide use

contributed to the later re-emergence of vector-borne diseases as a major public health challenge.

“The development of dichloro-diphenyl-trichloroethane (DDT) as the first residual insecticide in the early 1940s brought about a radical change in malaria control strategies” (Nájera et al., 2011). This advancement allowed the WHO to launch the Global Malaria Eradication Programme (GMEP) in 1955 as one of the first international attempts to eliminate a vector-borne disease. While the program successfully reduced

malaria in several regions through pesticide spraying and surveillance measures due to insecticide resistance and limited resources in many areas, the program disbanded in 1969 without achieving its goal of global malaria eradication. Nevertheless, the GMEP did lay the framework for future international cooperation strategies and tactics to prevent disease transmission and vector control.

The growing recognition of the role that environmental factors play in shaping human health culminated in the 1972 United Nations Conference on the Human Environment in Stockholm, “the first world conference to place environmental issues at the center of international discussion” (United Nations, n.d.). The conference led to the Stockholm Declaration and the creation of the United Nations Environment Programme (UNEP). The two collectively built the foundation for future international environmental cooperation. In 1978, the international focus shifted to strengthening healthcare systems with the Alma-Ata Declaration on Primary Health Care. The declaration called together by the WHO and the United Nations Children’s Fund (UNICEF) encouraged the idea of “Health for All by the Year 2000” and motivated countries to build accessible local clinics, community health services, and disease prevention systems. Although implementation was uneven, its focus on primary healthcare, prevention, and health equity became vital for responding to infectious disease outbreaks.

By the 1980s, researchers had started to document correlations between weather patterns and malaria variation. In 1988, “The Intergovernmental Panel on Climate Change was established... to provide policymakers with regular scientific assessments on the current state of knowledge about climate change” (Intergovernmental Panel on Climate Change, n.d.). These evaluations offered the scientific basis for understanding how rising temperatures, changing precipitation patterns, and extreme weather events could influence disease transmission and worsen public health crises and led



Session in the UN conference on the Human Environment in Sweden in June 1972

to the formal acknowledgment of climate change.

In the early 2000s, as outbreaks intensified across numerous regions, VBDs started to attract more global attention, especially as they transmitted disease into new geographic areas. West Nile virus spread rapidly across North America, chikungunya outbreaks emerged in Italy, and one of the largest recorded dengue outbreaks in the world occurred in Brazil. Collectively, this period marked a transition in which VBDs were no longer confined to the Global South and could emerge in regions previously considered low risk. On April 7th, 2014, the WHO dedicated World Health Day to its campaign called “Small bite: big threat,” focusing on the threats posed by disease vectors and the simple precautions people could take to protect themselves (World Health Organization, n.d.-b). As vectors moved beyond their traditional boundaries, the WHO emphasized the need to strengthen preparedness and response efforts globally.

In response to this acknowledgement, in 2017, the WHO introduced the Global Vector Control Response (WHO GVCR) 2017-2030, which provides a “new strategy to strengthen vector control worldwide through increased capacity, improved surveillance, better coordination, and integrated action across sectors and diseases” (World Health Organization, 2017). This initiative was based upon four core pillars: encouraging collaboration across health, environment, and other intersecting fields; empowering local populations to participate in vector and disease reduction; improving the surveillance of vectors; and promoting vector control interventions tailored to local ecosystems. “The GVCR aims to reduce the burden and threat of vector-borne diseases by at least 75% in mortality and 60% in incidence by 2030” (World Health Organization, 2017) while strengthening global preparedness against future outbreaks. Despite these advances, climate change continues to widen the geographic range of disease vectors, thus posing worsening challenges for public health systems and amplifying the need for appropriate preparedness measures around the world.

Current Challenges

Over the past 30 years, following the decades during which VBDs were reduced in many regions through habitat eradication and pesticide usage, malaria and dengue fever have reemerged throughout Asia and the Americas, while illnesses like Chikungunya and Zika have expanded across Africa and, more recently, Europe. According to the World Health Organization, “vector-borne diseases account for over 17% of all infectious diseases globally”; Malaria continues to remain one of the deadliest vector-borne diseases, while “more than 3.9 billion people in over 132 countries are currently at risk of contracting dengue” (World Health Organization, 2024). Additionally, mosquitos such as *Aedes aegypti* and *Aedes albopictus* have expanded into parts of Europe and North America, increasing the risk of dengue,



The aftermath of floods often leaves people without clean water, forcing them to use impure water for daily tasks and cooking, which significantly increases the risk of foodborne diseases.

chikungunya, and Zika transmission. As climate change persists in modifying temperatures and precipitation patterns, many regions previously identified as low-risk are becoming increasingly suitable for disease vectors.

The resurgence of VBDs has consequences for humans that extend far beyond infection rates. Diseases such as chikungunya can cause fever and extreme joint pain, and many other VBDs are associated with long-term disability, chronic pain, and decreased quality of life. Large outbreaks have strained health systems, reduced workforce productivity, and exacerbated existing social and economic inequalities. These burdens have fallen disproportionately on vulnerable populations, as around “100 million people [are pushed] into poverty every year” due to health-related shocks and stresses, with climate change worsening these trends (WHO). Extreme weather events such as El Niño in 2015 have also played a role in record-high temperatures and severe drought conditions, accelerating the rapid disease emergence and transmission. Beyond climate change itself, a number of factors such as globalization, urbanization, and insecticide resistance have all helped facilitate the geographic spread of infections, complicating preparedness efforts.

Globalization

Globalization has led to never-before-seen levels of international travel and trade, resulting in the rapid movement of people and goods across the globe. “Although this connectivity between countries comes with many benefits, it also creates new risks for disease control and prevention” (Society for Industrial and Applied Mathematics, 2020). This increased mobility has resulted in the unintentional transport of vectors and pathogens to new geographical locations. The Zika virus, for example, was largely attributed to international travel, with infected individuals unknowingly carrying the virus to new regions. At the same time, the complexity of cross-border collaboration has also made implementing effective integrated vector management



Thai government officials welcoming the first group of arriving international travelers in Bangkok in January 2023

(IVM) programs more difficult as differences in frameworks, resource availability, and disease control priorities hinder the establishment of coordinated strategies. In addition, “hitching vectors are unintentionally transported globally through international cargo, cargo ships, airplanes, and land vehicles” (Willoughby et al., 2024). This growing interconnectedness is reinforced by the expansion of global air travel and seaborne trade, which overcome

geographic barriers, enabling vectors to move further distances in less time. As a result, understanding how mobility between regions contributes to disease spread is becoming increasingly important for public health agencies and the international community.

Urbanization

As cities continue to expand, urban growth is reshaping how vector-borne diseases are managed, creating both opportunities and challenges. Urban microclimates, such as the urban heat island effect, have drastically altered the transmission dynamics of VBDs. Cities are among the highest consumers of global resources and are responsible for roughly 70% of carbon dioxide emissions (Srinivasan, 2026). Continued migration to urban areas results in high population concentrations that can overwhelm a city’s infrastructure and exacerbate climate-related pressures. “As more people move to the city, energy demand is expected to increase by 43% by 2050” (Srinivasan, 2026). To meet this demand, the construction of buildings and roads increases impervious concrete surfaces, which trap heat and intensify urban temperatures. In addition, many of these urban development plans contribute to the loss of biodiversity in cities, reducing natural predators of vectors such as certain fish and dragonflies, thereby allowing vector populations to grow ecologically unregulated. These conditions allow disease-carrying vectors to multiply, increasing the risk of transmission.

This hurdle is especially visible in many growing urban areas experiencing rapid expansion of informal settlements and temporary housing, such as favelas and



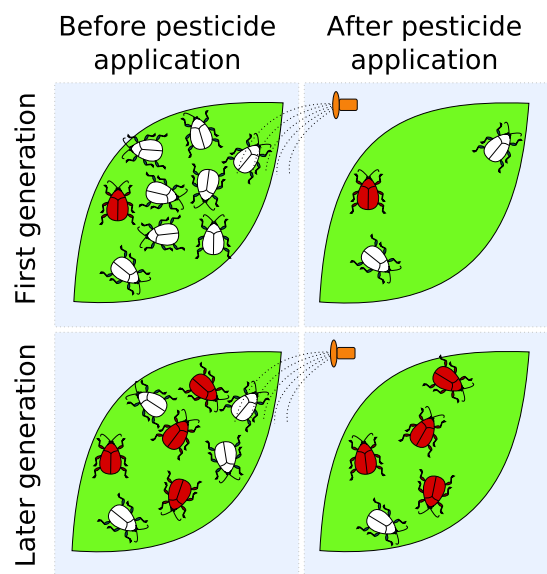
A crowded shopping street.

slums. Such locations often are not equipped with reliable plumbing, solid waste management, and storm drainage, providing ideal breeding grounds for vectors. This is also seen similarly in refugee camps, where displacement due to climate change, conflict, or environmental disasters has increased population density in resource-limited settings. In addition, displaced individuals moving through different geographic regions are often nonimmune to locally endemic diseases, while simultaneously facing limited access to early detection, prevention, and treatment. As a result, displaced populations are disproportionately exposed to outbreaks of diseases such as dengue and leishmaniasis, yet often remain the least equipped to respond due to gaps in health infrastructure and resource allocation.

Insecticide Resistance

Progress in global vector control is threatened by emerging resistance to insecticides. Insecticide-based vector control remains a fundamental approach in the fight against malaria and other vector-borne diseases. Effective vector control has relied heavily on two insecticidal interventions: insecticide-treated mosquito nets (ITNs) and indoor residual spraying (IRS) of insecticides. These measures have contributed significantly to the reduction of disease transmission worldwide; however, resistance to the interventions has emerged across many regions. “Of particular concern is pyrethroid resistance, [the only] insecticide class used in all WHO-recommended long-lasting ITNs”

and a commonly used insecticide for IRS programs (World Health Organization, 2018). In some areas, mosquito populations have developed resistance to more than one resistance mechanism, further limiting available vector control options. In addition, behavioral resistance has also been observed and is “defined by a change in mosquito activity, such as avoidance of insecticide-treated surfaces or changes in feeding or resting patterns in response to the presence of insecticide.” While resistance-management approaches such as insecticide sequencing, mixtures, and rotations have been used, these methods are often relatively expensive because of the need for multiple interventions. As climate change expands the geographic range of disease vectors, growing insecticide resistance threatens to undermine one of the most effective tools available for preventing and controlling VBD outbreaks.



A 2 by 2 graph showing affects of pesticide application on first and later generations

Current International Responses

In 2020, the COVID-19 pandemic further exposed the vulnerability of interconnected systems to handle rapidly spreading infectious diseases. Many of these issues were results of “weaknesses in medical care infrastructure, supply chains, government preparedness and actions, and human resources” which needed to be addressed (Filip et al., 2022). In response to these failures and the growing complexity of vector-borne diseases, international strategies for VBDs have been shifting from reactive treatments to more proactive, integrated preparedness systems. A key example of this shift is the adoption of the One Health approach, defined by the WHO as an “integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals, and ecosystems” (World Health Organization, n.d.-a). In addition, global efforts have also started to focus on early warning and establishing surveillance systems to integrate climate and health data to predict outbreak risk. This was evidenced by the UN’s launch of the 2024 Global Strategic Preparedness, Readiness, and Response Plan (SPRP), which incorporated measures to mitigate dengue and Aedes-borne arboviral diseases. The plan gave recommendations to member states on aspects such as disease surveillance, laboratory activities, vector control, community



A large climate change protest rally during the COP26 summit, with a prominent NO NET ZERO banner

engagement, clinical management, and research development. In 2025, the UN also issued guidelines to support healthcare workers treating patients with dengue, chikungunya, and other climate-sensitive diseases.

Moreover, health concerns have been increasingly integrated into international climate governance, as vector populations continue to expand in geographic range and seasonal intensity faster

than policy frameworks can often adapt. This is reflected in the UN’s Climate Change Conference (COP26) in Glasgow, where “197 countries gathered to agree on rules to implement the 2015 Paris Agreement on climate change, as well as [create] an improved support package for vulnerable countries” (World Health Organization, 2021). This highlighted the need to enhance resilience to climate-sensitive health risks by doubling finance to support developing countries in adapting to the impacts of climate change. Building on this momentum, the Alliance for Transformative Action on Climate and Health (ATACH) was established to support the implementation

of climate-health commitments made at COP26 by coordinating collective action among WHO Member States. “The alliance has recently launched its new strategy for 2024-2028 and transitioned to a new governance and operation structure to better address country implementation needs in climate change and health” (Alliance for Transformative Action on Climate and Health, n.d.).

Furthermore, there have also been recent regional enforcement efforts, including the European Centre for Disease Prevention and Control’s (ECDC) vector surveillance systems, the Pan American Health Organization’s (PAHO) integrated vector management frameworks, and Africa’s Center for Disease Control and Prevention’s (CDC) continental preparedness initiatives. These actions point towards a shift to regionalized climate-sensitive disease regulation and collaborative outbreak preparedness. However, despite the expansion and rise in frameworks, vector control remains uneven due to disparities in healthcare infrastructure, funding limitations, and surveillance capacity across Member States, which continue to constrain the effectiveness of these initiatives, particularly in low- and middle-income countries where vector-borne disease burdens are greatest. “Public health agents [around the world] recognize that community engagement and transparent communication are critical for gaining public support and succeeding in interventions” (Kulkarni, 2016).

Case Studies

Bangladesh

“Dengue fever has emerged as a major public health crisis in Bangladesh, with an unprecedented surge in cases and fatalities in recent years” (Ogieuhi et al., 2025). The country faces a unique combination of climate, environmental, and socioeconomic factors that have intensified dengue transmission. Ranked ninth globally for climate disaster risk in the 2023 World Risk Index, Bangladesh is projected to lose 17% of its territory due to rising sea levels, prompting increased migration from vulnerable coastal and rural regions into urban centers. At the same time, “the melting of



The refugee camp in Cox's Bazar, Bangladesh.

the Himalayan glaciers threatens Bangladesh’s river system, causing severe flooding and waterlogging” in more than half the country (Ogieuhi et al., 2025).

The impacts of this migration are quite visible in the country’s capital, Dhaka, which has over half of all cases and deaths resulting from dengue fever. Rapid urbanization, combined with inadequate infrastructure, has created

conditions that facilitate disease transmission. Many individuals have to store water in containers due to irregular water supply, providing optimal breeding sites for mosquitoes. In addition, inappropriate disposal of solid waste and inadequate drainage systems in the urban areas had allowed for the accumulation of stagnant water, further increasing the risk of dengue transmission. Similar challenges exist in the other major cities of Bangladesh, such as Chittagong, Khulna, and Rajshahi, which have absorbed a majority of the country's climate-migration issue.

The consequences for public health have been substantial. People affected with dengue experience a wide range of flu-like symptoms, such as high fever, muscle pain, and rashes, to severe forms of dengue hemorrhagic fever and dengue shock syndrome. Bangladesh has been experiencing an increasing trend in dengue cases over the past few decades, with a notable surge during the monsoon season from May to September. From January to September of 2023, "a total of 203,206 dengue cases and 989 deaths were recorded" (Ogieuhi et al., 2025). The increasing number of cases has led to a surge in hospitalizations, outpatient visits, and the demand for medical resources. The cost for healthcare expenses has also risen exponentially, leaving households to bear a substantial portion of this cost, a financial burden particularly challenging for low-income families.

Furthermore, vulnerable populations such as children, the elderly, and displaced people are at a greater risk of severe dengue complications. The Rohingya refugee camps in Cox's Bazar have become significant hotspots for dengue transmission in Bangladesh because of overcrowding and inadequate access to healthcare. Public awareness of dengue prevention and symptoms remains inconsistent, complicating efforts to reduce transmission. The limited availability of dengue vaccines has contributed to the increasing number of cases, as logistical challenges, especially in reaching remote areas of the country, mean vaccines are not readily available. Additionally, vaccine effectiveness can vary depending on the recipient's previous exposure to different dengue serotypes, hindering widespread implementation. It is estimated that these challenges, in urbanization, population density, and climate change, will only continue to worsen public health in Bangladesh.

Sweden and Italy

Ticks are expanding north along Sweden's coast, transmitting infectious diseases to humans and animals, largely as a result of rising temperatures associated with climate change. These insects now appear earlier in the year and have been linked to human cases of Lyme disease, whose symptoms include fever, headaches, fatigue, and skin rashes. While there is no current preventive vaccine for Lyme disease, Sweden's world-class healthcare system has ensured the rapid diagnosis and treatment for those infected.

Sweden demonstrates that outbreaks of diseases sensitive to climate are no longer exclusively a concern of tropical or developing countries. Despite possessing one of the world's most advanced healthcare systems, rising temperatures have allowed ticks to expand into previously unsuitable habitats, exposing new populations to vector-borne diseases. While the country is equipped and prepared with strong surveillance systems, public awareness campaigns, accessible healthcare, and rapid diagnosis, tick populations continue spreading northward. This highlights an important challenge for developed countries: healthcare systems can minimize the impacts of disease, but they cannot fully prevent climate-driven ecological changes that alter vector distribution.



People using umbrellas and drinking water in Rome, Italy during the Cereberus heat wave.

Ticks have also been a problem in rural and indigenous communities. The traditional homeland of the Sámi people has been disproportionately impacted as changing ecosystems affect the reindeer population and traditional livelihoods. While climate change is often associated with causing floods, hurricanes, and heat waves, Sweden illustrates how gradual ecosystem shifts can be equally significant. Milder winters and longer warm seasons increase tick survival, extending breeding seasons, and expanding geographic ranges. To address these risks, the country's government requires laboratories and physicians to report all confirmed cases of Lyme disease, publishes detailed risk maps outlining tick-borne encephalitis endemic regions, and promotes education regarding proper tick removal. The government has also supported epidemiological research on tick ecology and aids in clinical trials, including hosting testing sites for the Pfizer Lyme disease vaccine.

Across Europe, Italy has faced a different climate-linked disease challenge. The country "has experienced an increasing proportion of chikungunya cases, a mosquito-borne disease that can cause both acute illness and long-term chronic and often debilitating complications, "in particular persistent inflammatory arthralgia and neuropathic pain" (Dumas et al., 2026). The first outbreak of the disease in a temperate-climate country was in northern Italy in 2007; ten years later, the disease reemerged close to Italy's capital, Rome. These outbreaks were fueled by the repeated introductions of the virus through international travel from endemic zones, whose survival has been aided by favorable climatic conditions.

To combat Chikungunya and other arboviruses, Italy's Ministry of Health and local authorities have implemented a comprehensive national arbovirus response plan. During outbreaks, municipalities conduct widespread anti-mosquito operations, including chemical disinsection, aerial spray with insecticides, and the use of larvicides in street drains to wipe out vector populations. Additionally, the health department publishes local risk communications, advising residents on the use of repellents, eliminating standing water, and installing window screens.

Brazil's Wolbachia Mosquito Program

In 2025, "the world's largest biofactory breeding *Aedes aegypti*, Wolbito do Brasil, was launched in Brazil" to combat mosquito-borne diseases (Jackson, 2025). The Wolbachia approach is a nature-based vector control method that has significantly reduced the incidence of dengue, Zika, and chikungunya in cities such as Rio de Janeiro and Niteroi since its first deployment in 2014. The program involves releasing *Aedes aegypti* mosquitoes infected with the naturally occurring bacterium Wolbachia, which reduces the insects' ability to transmit viruses such as dengue, Zika, chikungunya, and yellow fever.

The World Mosquito Program's (WMP) report noted that the "innovative Wolbachia technology has protected more than five million people in Brazil and is "expected to reach more than 140 million people across approximately 40 municipalities in the coming years" (Jackson, 2025). Researchers have suggested that Brazil's leadership in utilizing Wolbachia nationally could provide a model for countries. One of the key advantages of this method is its highly cost-effective approach to disease control and self-sustaining nature: Once it is established in local mosquito populations, Wolbachia is naturally passed down by female mosquitoes to their offspring, which means that Wolbachia does not need to be reapplied and has no ongoing costs.

The program has since been expanded into countries including Indonesia, Australia, Vietnam, Kenya, and Mexico, reflecting its potential as a globally scalable intervention.



Lúcia Jordan executing her Wolbachia mission to combat Dengue in Joinville, Brazil.

However, despite its promise, Wolbachia does not eliminate mosquitoes, only reducing their ability to transmit diseases. Further, for it to work effectively, a high proportion of local mosquito populations must be infected with Wolbachia, and sustained releases are often needed in early phases. In regions facing

conflict, weak infrastructure, and/or funding instability, deployment can be difficult. Additionally, extreme climate conditions may rapidly increase mosquito breeding, potentially outpacing Wolbachia coverage in some settings. Long-term ecological effects are still being studied, with the potential for changes in mosquito population dynamics to affect local ecosystems in unpredictable ways.

Directives / QARMAs

As delegates of this specialized agency, it is critical to take into account how public health systems, state sovereignty, environmental governance, and infrastructure development intersect in addressing climate-linked disease outbreaks. Some questions to consider:

How can developing countries strengthen preparedness despite limited resources?

What financing mechanism could support climate-resilient health infrastructure?

How should countries balance traditional insecticide-based control with new advancing technologies such as Wolbachia?

What measures can be taken to protect vulnerable populations, particularly those living in informal settlements, from climate-sensitive diseases?

How can cities reduce urban heat island effects and other environmental issues that contribute to vector expansion?

What role should international cooperation play in addressing the unequal health impacts of climate change?

How can international cooperation improve outbreak response?

What resources and infrastructure are needed for climate-resilient healthcare systems?

Bibliography

Topic 1

- Aarseth, E., Bean, A. M., Boonen, H., Colder Carras, M., Coulson, M., Das, D., Deleuze, J., Dunkels, E., Edman, J., Ferguson, C. J., Haagsma, M. C., Helmersson Bergmark, K., Hussain, Z., Jansz, J., Kardefelt-Winther, D., Kutner, L., Markey, P., Nielsen, R. K. L., Prause, N., ... Van Rooij, A. J. (2017). Scholars' open debate paper on the World Health Organization ICD-11 Gaming Disorder proposal. *Journal of Behavioral Addictions*, 6(3), 267–270. <https://doi.org/10.1556/2006.5.2016.088>
- Carragher, N., Billieux, J., Bowden-Jones, H., Achab, S., Potenza, M. N., Rumpf, H.-J., Long, J., Demetrovics, Z., Gentile, D., Hodgins, D., Aricak, O. T., Baigent, M., Gandin, C., Rahimi-Movaghar, A., Scafato, E., Assanangkornchai, S., Siste, K., Hao, W., King, D. L., ... Poznyak, V. (2022). Brief overview of the WHO Collaborative Project on the Development of New International Screening and Diagnostic Instruments for Gaming Disorder and Gambling Disorder. *Addiction*, 117(7), 2119–2121. <https://doi.org/10.1111/add.15780>
- Cash, H., Rae, C. D., Steel, A. H., & Winkler, A. (2012). Internet Addiction: A Brief Summary of Research and Practice. *Current Psychiatry Reviews*, 8(4), 292–298. <https://doi.org/10.2174/157340012803520513>
- Cohen-Almagor, R. (2011). Internet History. *International Journal of Technoethics (IJT)*, 2(2), 45–64. <https://doi.org/10.4018/jte.2011040104>
- Darvesh, N., Radhakrishnan, A., Lachance, C. C., Nincic, V., Sharpe, J. P., Ghassemi, M., Straus, S. E., & Tricco, A. C. (2020). Exploring the prevalence of gaming disorder and Internet gaming disorder: A rapid scoping review. *Systematic Reviews*, 9(1), 68. <https://doi.org/10.1186/s13643-020-01329-2>
- Endomba, F. T., Demina, A., Meille, V., Ndoadoumgue, A. L., Danwang, C., Petit, B., & Trojak, B. (2022). Prevalence of internet addiction in Africa: A systematic review and meta-analysis. *Journal of Behavioral Addictions*, 11(3), 739–753. <https://doi.org/10.1556/2006.2022.00052>
- Eun-byel, I. (2021, August 25). Korea to ax games curfew. *The Korea Herald*. <https://www.koreaherald.com/article/2677962>
- Hou, Y., Xiong, D., Jiang, T., Song, L., & Wang, Q. (2019). Social media addiction: Its impact, mediation, and intervention. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 13(1). <https://doi.org/10.5817/CP2019-1-4>
- International Telecommunication Union. (2023). Measuring Digital Development – Facts and Figures 2023. International Telecommunication Union. <https://www.itu.int/itu-d/reports/statistics/wp-content/uploads/sites/5/2023/11/Measuring-digital-development-Facts-and-figures-2023-E.pdf>
- Kang, C., Mac, R., & Tan, E. (2026, March 25). Meta and YouTube Found Negligent

- in Landmark Social Media Addiction Case. The New York Times. <https://www.nytimes.com/2026/03/25/technology/social-media-trial-verdict.html>
- Kang, C., & Tan, E. (2026, August 26). Meta to Pay Up to \$17.1 Billion in Landmark Settlement Over Social Media Addiction Claims. The New York Times. <https://www.nytimes.com/2026/08/26/technology/meta-settlement-social-media-addiction-lawsuit.html>
- Khumalo, T. (2026). Mobile phone addiction in African societies. *Frontiers in Psychology*, 17. <https://doi.org/10.3389/fpsyg.2026.1773697>
- Miron. (2025, August 29). Chinese Gaming Regulations Largely Failed to Achieve Their Goals. Cato Institute. <https://www.cato.org/blog/chinese-gaming-regulations>
- Moretta, T., Buodo, G., Demetrovics, Z., & Potenza, M. N. (2022). Tracing 20 years of research on problematic use of the internet and social media: Theoretical models, assessment tools, and an agenda for future work. *Comprehensive Psychiatry*, 112, 152286. <https://doi.org/10.1016/j.comppsy.2021.152286>
- NHS England. (2023, March 28). NHS treats hundreds with gaming disorders. <https://www.england.nhs.uk/2023/03/nhs-treats-hundreds-with-gaming-disorders/>
- Przybylski, A. K., & Weinstein, N. (2013). Can you connect with me now? How the presence of mobile communication technology influences face-to-face conversation quality. *Journal of Social and Personal Relationships*, 30(3), 237–246. <https://doi.org/10.1177/0265407512453827>
- Sang, Y., Park, S., & Seo, H. (2017). Mobile Game Regulation in South Korea: A Case Study of the Shutdown Law. In D. Y. Jin (Ed.), *Mobile Gaming in Asia: Politics, Culture and Emerging Technologies* (pp. 55–72). Springer Netherlands. https://doi.org/10.1007/978-94-024-0826-3_4
- World Health Organization. (2015). Public health implications of excessive use of the internet, computers, smartphones and similar electronic devices: Meeting report (pp. 5–29). World Health Organization. <https://iris.who.int/handle/10665/184264>
- World Health Organization. (2021). *Global Strategy on Digital Health 2020-2025* (1st ed). World Health Organization. <https://www.who.int/publications/i/item/9789240020924>
- World Health Organization. (2025, December 2). ICD-11 Implementation. <https://www.who.int/standards/classifications/frequently-asked-questions/icd-11-implementation>
- World Health Organization. (2026). 6C51 Gaming disorder. In *International statistical classification of diseases and related health problems* (11th ed.). World Health Organization. <https://icd.who.int/browse/2026-01/mms/en#1448597234>
- Xiao, L. Y. (2024). Mainland China's 2021 restrictions on under-18s' video game

time were imposed when older 2019 restrictions already applied: Omitting the historical regulatory context is misleading. *Journal of Behavioral Addictions*, 14(3), 1115–1118. <https://doi.org/10.1556/2006.2024.00061>

Young, K. S. (1998). Internet Addiction: The Emergence of a New Clinical Disorder. *CyberPsychology & Behavior*, 1(3), 237–244. <https://doi.org/10.1089/cpb.1998.1.237>

Topic 2

Alliance for Transformative Action on Climate and Health. (n.d.). About ATACH. Retrieved September 7, 2026, from <https://www.atachcommunity.com/about-atach/>

Athni, T. S., Shocket, M. S., Couper, L. I., Nova, N., Caldwell, I. R., Caldwell, J. M., Childress, J. N., Childs, M. L., De Leo, G. A., Kirk, D. G., MacDonald, A. J., Olivarius, K., Pickel, D. G., Roberts, S. O., Winokur, O. C., Young, H. S., Cheng, J., Grant, E. A., Kurzner, P. M., ... Mordecai, E. A. (2021). The influence of vector-borne disease on human history: Socio-ecological mechanisms. *Ecology Letters*, 24(4), 829–846. <https://doi.org/10.1111/ele.13675>

Dumas, S. E., O'Brien, K. R., Rao, M. M., & Holtz, T. H. (2026). U.S. climate change policy must include vector-borne disease prevention. *Frontiers in Public Health*, 14. <https://doi.org/10.3389/fpubh.2026.1792352>

Filip, R., Gheorghita Puscaselu, R., Anchidin-Norocel, L., Dimian, M., & Savage, W. K. (2022). Global Challenges to Public Health Care Systems during the COVID-19 Pandemic: A Review of Pandemic Measures and Problems. *Journal of Personalized Medicine*, 12(8), 1295. <https://doi.org/10.3390/jpm12081295>

Intergovernmental Panel on Climate Change. (n.d.). History. Retrieved September 7, 2026, from <https://www.ipcc.ch/about/history/>

Jackson, A. (2025, July 23). Brazil opens the world's largest mosquito biofactory. World Mosquito Program. <https://www.worldmosquitoprogram.org/news-stories/brazil-opens-worlds-largest-mosquito-biofactory>

Kulkarni, M. (2016). Global spread and impacts of emerging vector-borne diseases. *Canada Communicable Disease Report*, 42(10), 198–199. <https://doi.org/10.14745/ccdr.v42i10a02>

Nájera, J. A., González-Silva, M., & Alonso, P. L. (2011). Some Lessons for the Future from the Global Malaria Eradication Programme (1955–1969). *PLoS Medicine*, 8(1), e1000412. <https://doi.org/10.1371/journal.pmed.1000412>

Ogieuhi, I. J., Ahmed, M. M., Jamil, S., Okesanya, O. J., Ukoaka, B. M., Eshun, G., Ogaya, J. B., & Lucero-Prisno Iii, D. E. (2025). Dengue fever in Bangladesh: Rising trends, contributing factors, and public health implications. *Tropical Diseases*,

- Travel Medicine and Vaccines, 11(1), 26. <https://doi.org/10.1186/s40794-025-00251-6>
- Prasetyo, D. B., Mathieu, B., Depaquit, J., & Boyer, S. (2025). Not here yet, but one bite away: Risk for vector-borne zoonotic diseases. *PLOS Neglected Tropical Diseases*, 19(12), e0013802. <https://doi.org/10.1371/journal.pntd.0013802>
- Society for Industrial and Applied Mathematics. (2020, September 22). People Travel More Extensively Than Ever Before – How That Impacts on Disease Spread. *SciTechDaily*. <https://scitechdaily.com/people-travel-more-extensively-than-ever-before-how-that-impacts-on-disease-spread/>
- Srinivasan, A. H., Sanchana. (2026, February 17). Accra Climate Migration and Urban Heat: Thrivable Solutions. THRIVE Project. <https://thrivabilitymatters.org/accra-climate-migration-urban-heat-solutions/>
- United Nations. (n.d.). United Nations Conference on the Human Environment, Stockholm 1972. United Nations. Retrieved September 7, 2026, from <https://www.un.org/en/conferences/environment/stockholm1972>
- Willoughby, J. R., McKenzie, B. A., Ahn, J., Steury, T. D., Lepzcyk, C. A., & Zohdy, S. (2024). Assessing and managing the risk of Aedes mosquito introductions via the global maritime trade network. *PLOS Neglected Tropical Diseases*, 18(4), e0012110. <https://doi.org/10.1371/journal.pntd.0012110>
- World Health Organization. (n.d.-a). One Health. Retrieved September 7, 2026, from <https://www.who.int/health-topics/one-health>
- World Health Organization. (n.d.-b). World Health Day 2014. Retrieved September 7, 2026, from <https://www.emro.who.int/world-health-days/world-health-day-2014/>
- World Health Organization. (2017). Global vector control response 2017–2030. <https://www.who.int/publications/i/item/9789241512978>
- World Health Organization. (2018). Global report on insecticide resistance in malaria vectors: 2010-2016. <https://www.who.int/publications/i/item/9789241514057>
- World Health Organization. (2021, November 21). What has COP26 achieved for health? <https://www.who.int/news-room/feature-stories/detail/what-has-cop26-achieved-for-health>
- World Health Organization. (2024, September 16). Vector-borne diseases. <https://www.who.int/news-room/fact-sheets/detail/vector-borne-diseases>

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