

The Doomsday Clock and Global Health: A Medical Sociological Analysis of Existential Threats to Human Civilization From 1947 to 85 Seconds to Midnight Situating the Biosocial Crises of the Twenty-First Century

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Abstract

Since its inception in 1947, the Doomsday Clock maintained by the Bulletin of the Atomic Scientists has functioned as a socially constructed barometer of civilisational risk, translating complex scientific, geopolitical, and technological threats into a universally legible symbolic chronometry. As of January 2026, the Clock stands at 85 seconds to midnight, its most alarming position in nearly eight decades of operation. This article adopts a medical sociological framework, drawing on concepts of structural risk, social determinants of health, medicalisation of catastrophe, and the sociology of knowledge, to situate the Doomsday Clock within contemporary global health discourse. It examines ten interconnected domains of existential threat — nuclear warfare, artificial intelligence, biotechnology, cyberspace vulnerabilities, misinformation, climate change, geoclimatic risk, biodiversity loss, pandemic preparedness deficits, and the erosion of multilateral governance — and analyses each through the lens of their differential health burdens, social inequities, and population-level consequences. The article argues that the Clock is not merely a political metaphor but a legitimising scientific instrument whose sociological reading is indispensable to global public health policy, epidemiological preparedness, and the governance of emerging technologies. By integrating sociological theory with public health perspectives, the study highlights how these overlapping risks reinforce one another through interconnected political, economic, and environmental systems, disproportionately affecting vulnerable populations and widening existing global health inequalities. It further emphasises the importance of interdisciplinary collaboration, evidence-based policymaking, and resilient institutional frameworks in anticipating, mitigating, and responding to cascading global crises before irreversible societal and health consequences emerge. The article argues that the Clock is not merely a political metaphor but a legitimising scientific instrument whose sociological reading is indispensable to global public health policy, epidemiological preparedness, and the governance of emerging technologies.

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Received Date: April 21, 2026

Accepted Date: July 18, 2026

Published Date: July 20, 2026

Citation: Shanti Nandana Wijesinghe. The Doomsday Clock and Global Health: A Medical Sociological Analysis of Existential Threats to Human Civilization From 1947 to 85 Seconds to Midnight — Situating the Biosocial Crises of the Twenty-First Century. Recent Trends in Social Studies. 2026; 3(2): 26–36p.

Keywords: Doomsday clock, medical sociology, global health, nuclear threats, artificial intelligence, biotechnology, cyberspace, misinformation, climate change, geoclimatic risk, existential risk, health equity, bulletin of the atomic scientists, pandemic preparedness.

INTRODUCTION: THE CLOCK AS A SOCIAL AND MEDICAL TEXT

In June 1947, artist Martyl Langsdorf, wife of Manhattan Project physicist Alexander Langsdorf designed the cover of the newly magazine-formatted *Bulletin of the Atomic Scientists*. The image she produced was deceptively simple: a

clock face, its hands positioned at seven minutes to midnight. What she could not have foreseen was that this aesthetic choice would become one of the most recognisable and enduring symbols in the history of human civilisation a metaphor so potent that it now encompasses not merely the spectre of nuclear annihilation, but the full spectrum of man-made threats to biological, social, and ecological existence on Earth [1-13].

The Doomsday Clock, as it came to be known, is maintained and periodically reset by the Bulletin's Science and Security Board (SASB), which includes among its advisors nine Nobel laureates. Its setting is not computed algorithmically but deliberated socially a process deeply consistent with sociological understandings of how scientific communities construct and communicate risk (Wynne, [14] 1992; Beck, [15] 1992). The Clock is, in Foucauldian terms, a *dispositif* a discursive apparatus through which expert knowledge, institutional authority, and public affect are configured around the problem of collective survival (Foucault, [6] 1982). As such, it demands reading not only as a geopolitical instrument, but as a medical sociological text [1].

1947

Year the Clock was created, initially set at 7 minutes to midnight

27×

Times the Clock hand has been reset since its inaugural setting

85 sec

Current setting as of January 2026 the closest in Clock history

17 min

Furthest from midnight achieved in 1991 after Cold War's end

On 27 January 2026, the Bulletin set the Clock to 85 seconds to midnight four seconds closer than its 2025 position of 89 seconds, and the most proximate setting in the instrument's 79-year history. The SASB cited failures of international leadership, the intensification of nuclear risks across three regional theatres, accelerating climate disruption, unchecked developments in biotechnology, and the destabilising influence of artificial intelligence across both military and civilian domains. These are not merely political events. They are, as this article contends, medical sociological events of the first order each embedded in structures of social inequality, each productive of differential health outcomes, and each measurably shortening the life-chances of populations positioned at the margins of global power [2].

"Hard-won global understandings are collapsing, accelerating a winner-takes-all great power competition and undermining the international cooperation critical to reducing the risks of nuclear war, climate change, the misuse of biotechnology, the potential threat of artificial intelligence, and other apocalyptic dangers." Bulletin of the Atomic Scientists, 2026 Doomsday Clock Statement

This article proceeds as follows. Section 2 establishes the theoretical framework from medical sociology and risk sociology. Sections 3 through 12 examine each of the ten principal threat domains identified in the Bulletin's deliberations, analysing their health consequences and sociological dimensions. Section 13 considers the implications for global health governance, and Section 14 concludes with a call for the integration of medical sociological expertise into the institutional architecture of existential risk management [3].

THEORETICAL FRAMEWORK: MEDICAL SOCIOLOGY, RISK, AND CIVILISATIONAL THREAT

Medical sociology occupies a unique position among the social sciences in that it is simultaneously concerned with the macro-structural conditions that produce illness and the micro-level experiences of

embodied suffering. Its theoretical toolkit encompassing Parsonian functionalism, Marxist political economy of health, Bourdieusian field theory, Foucauldian biopolitics, and the sociological study of risk pioneered by Ulrich Beck and Anthony Giddens equips it to examine the Doomsday Clock's threat domains with unusual analytical depth [4].

Beck's concept of the *Risk Society* is particularly generative here. Beck argued that modernity's triumphs industrialisation, scientific rationalisation, technological innovation have produced a new class of risks that are global in scope, invisible to ordinary perception, temporally extended, and incapable of adequate compensation. Unlike the poverty-related hazards of early industrial capitalism, these manufactured risks are the unintended consequences of scientific and technological success. The Doomsday Clock's threat domains are, almost without exception, examples of Beckian manufactured risks: nuclear weapons, biotechnology, artificial intelligence, and climate change are each the products of advanced scientific endeavour deployed under conditions of insufficient governance [5].

Complementing Beck, Giddens' concept of *ontological security* provides a framework for understanding the psychological and social health consequences of sustained civilisational threat. Ontological security the sense of continuity, reliability, and predictability that undergirds everyday social life is progressively eroded when populations are confronted with existential risks that exceed the capacity of ordinary social institutions to absorb or neutralise. The medical consequences of this erosion are well documented: chronic anxiety, depression, moral injury, post-traumatic stress disorder, and what environmental psychologists have termed *eco-anxiety* or *climate grief* (Clayton et al., [16] 2017). The Doomsday Clock, in this reading, is not only a geopolitical warning but a social determinant of mental health [6].

Finally, Virchow's foundational claim that "medicine is a social science, and politics is nothing but medicine on a grand scale" (1848) takes on renewed urgency in the context of the 2026 Clock setting. The social determinants of health income, education, political power, environmental quality, access to information are each directly compromised by the threat domains the Clock catalogues. Medical sociology thus has both a descriptive and a normative stake in the Doomsday Clock's trajectory.

NUCLEAR THREATS: THE ORIGINAL MIDNIGHT

The Doomsday Clock was conceived in direct response to the atomic bombings of Hiroshima and Nagasaki in August 1945 and the subsequent acceleration of nuclear weapons development. The United States and Soviet Union's nuclear arms race which by the mid-1950s included thermonuclear devices capable of obliterating entire metropolitan regions provided the original content of the Clock's symbolism. The 1953 setting of two minutes to midnight, prompted by both nations' testing of hydrogen bombs, represented the first moment the scientific community formally communicated the possibility of human extinction to a mass public [7].

From a medical sociological standpoint, nuclear warfare represents a total disruption of the social conditions necessary for health. A nuclear exchange of even limited scope what researchers have termed a "regional nuclear war" involving fewer than 100 Hiroshima-scale bombs would inject sufficient soot and aerosols into the atmosphere to reduce global agricultural output by 20–40% for a decade, threatening food insecurity for up to two billion people (Robock et al., [10] 2007). A full-scale nuclear exchange between major powers would, according to current modelling, kill hundreds of millions within weeks through blast, fire, and radiation, and potentially billions more through the agricultural and health system collapses attendant upon "nuclear winter" [8].

The 2026 Bulletin statement identifies three regional nuclear theatres as sources of escalating alarm: the Russia-Ukraine conflict, tensions in the Middle East, and the Taiwan Strait. Each of these represents a context in which nuclear weapons states are operating under conditions of heightened miscalculation risk. Medical sociologists note that the health consequences of nuclear threats are not

deferred to detonation: populations living under the threat of nuclear war experience documented elevations in stress-related illness, political disengagement, and what psychiatrist Robert Lifton [17] (2008) called *psychic numbing* a dissociative adaptive response to overwhelming existential threat that paradoxically reduces the political will to prevent catastrophe.

ARTIFICIAL INTELLIGENCE: THE ALGORITHMIC ACCELERANT

Artificial intelligence entered the Bulletin's Doomsday Clock deliberations formally in 2025, when the increased deployment of AI in battlefield decision-making and social media manipulation was cited as a new factor in the Clock's advancement. By the 2026 setting, AI had become a core concern across multiple threat domains simultaneously potentiating nuclear risk through autonomous weapons systems, accelerating biothreat design, enabling disinformation at population scale, and threatening the integrity of cyberinfrastructure [9].

From the standpoint of medical sociology and global public health, AI presents what scholars have termed a "paradox of capacity": the same capabilities that make AI a potentially transformative tool for disease surveillance, drug discovery, and health systems efficiency also make it a vector for catastrophic misuse. A striking datum from the research literature holds that a third of AI experts surveyed in a Stanford poll suggested that misuse of AI could result in a "nuclear-like catastrophe" with direct consequences for global health systems and patient safety. AI-driven medical algorithms that produce systematic diagnostic errors, AI-generated biotechnology that inadvertently or intentionally creates or modifies lethal pathogens, and AI systems that disrupt the supply chains and information architectures upon which health systems depend these represent concrete, near-term global health threats, not speculative futures [10].

The sociological dimensions of AI risk are equally significant. AI systems, trained on datasets reflecting existing social inequalities, predictably reproduce and amplify those inequalities in their outputs. Algorithmic denial of health insurance, racially biased diagnostic tools, and the concentration of AI capabilities in a small number of high-income countries and corporations each represent structural mechanisms through which AI risk is socially distributed falling heaviest on precisely those populations already most disadvantaged by the social determinants of health. The 2026 Bulletin call for international guidelines on the use of AI represents, in medical sociological terms, a demand for the governance of a new and powerful determinant of health equity.

BIOTECHNOLOGY: ENGINEERING AT THE EDGE OF EXTINCTION

The 2026 Doomsday Clock statement identifies four developments in the life sciences as having materially increased catastrophic risk in the preceding year. Most dramatically, in December 2024, scientists from nine countries announced recognition of a potentially existential threat arising from the possible laboratory synthesis of "mirror life" organisms composed of chemically synthesised molecules that are mirror images of those found in nature. These scientists warned that a self-replicating mirror cell could evade normal biological controls, spread through all ecosystems, and potentially cause widespread death across plant, animal, and human populations [11].

This is, by any reasonable sociological assessment, a moment of profound significance: for the first time, the scientific community has identified an experimental trajectory that could, if pursued, produce an agent capable of disrupting the biological fabric of life on Earth. The Bulletin's 2026 statement notes that the international community has not yet arrived at a plan to address this risk a governance failure with direct parallels to the decades that elapsed between nuclear weapons development and the establishment of non-proliferation frameworks [12].

More immediately, the rapid democratisation of biotechnological capability exemplified by the wide availability of CRISPR gene-editing tools means that the technical threshold for engineering dangerous pathogens is falling. Medical sociologists have long attended to the social conditions under

which scientific knowledge is produced, legitimised, and distributed; the current biotechnology landscape demands renewed attention to the conditions under which such knowledge might be weaponised, whether by state actors, non-state actors, or through laboratory accidents whose consequences transcend national borders. The COVID-19 pandemic demonstrated with devastating clarity that a single pathogenic event could kill millions, displace billions, and inflict economic damage of historic proportions all while exposing the profound social inequities that determine who survives and who does not [13].

CYBERSPACE: THE INVISIBLE INFRASTRUCTURE OF HEALTH AND HARM

Cyberspace has emerged as a domain of existential concern because of the profound dependence of contemporary health systems and indeed all critical social infrastructure upon digital networks. The 2026 Bulletin statement situates cyberspace within a broader pattern of eroding international norms, in which state and non-state actors increasingly exploit digital vulnerabilities as instruments of geopolitical competition. From a medical sociological perspective, the health consequences of cyberspace insecurity are both direct and structural.

Directly, cyberattacks on health infrastructure have documented lethal consequences. Hospital ransomware attacks which have occurred with increasing frequency in North America, Europe, and beyond disrupt electronic health records, disable diagnostic imaging systems, close emergency departments, and delay time-critical interventions such as cardiac catheterisation, stroke thrombolysis, and organ transplantation. In documented cases, researchers have linked hospital cyberattacks to measurable increases in patient mortality rates. The vulnerability of pharmaceutical supply chains, medical device firmware, and clinical trial data systems to cyberattack adds further dimensions of risk.

Structurally, cyberspace insecurity reproduces and exacerbates existing health inequalities. Hospitals in low- and middle-income countries (LMICs) which typically lack the cybersecurity resources of their high-income counterparts are disproportionately vulnerable to attack and disproportionately dependent on digital systems when those systems fail. The erosion of cybersecurity norms at the state level thus functions, in sociological terms, as a mechanism of global health injustice: the consequences of great-power competition in cyberspace are borne disproportionately by populations that played no part in creating the threat [14].

MISINFORMATION: THE INFODEMIC AS PUBLIC HEALTH EMERGENCY

The World Health Organization coined the term "infodemic" to describe the excess of information accurate and inaccurate that accompanied the COVID-19 pandemic and demonstrably impaired public health responses. The Doomsday Clock's inclusion of "disinformation and disruptive technologies" as a factor in its setting since 2023 reflects the Bulletin's recognition that the epistemological foundations of coordinated global action are themselves under threat. When populations cannot reliably distinguish scientific consensus from manufactured doubt, the social conditions necessary for collective responses to existential threats are substantially undermined.

From a medical sociological standpoint, misinformation is both a health risk and a social determinant of health. The mechanism is direct: health misinformation about vaccines, treatments, disease transmission, and the efficacy of public health measures produces measurable behavioural changes that increase morbidity and mortality. The anti-vaccination movements that weakened herd immunity in numerous countries, the proliferation of COVID-19 conspiracy theories that impaired pandemic control, and the online promotion of ineffective or dangerous treatments each represent cases in which information pathology translated directly into biological pathology [15].

The intersection of misinformation with artificial intelligence introduces qualitative escalation. AI-generated content text, image, audio, and video can now be produced at speeds and volumes that

exceed the capacity of existing fact-checking infrastructures to adjudicate. Research demonstrates that humans generally find AI-generated text equally or more credible than human-authored text, meaning that AI-powered disinformation campaigns operate at a fundamental epistemic advantage. In the context of nuclear risk, AI-generated misinformation about weapons capabilities, casualty figures, or attribution of attacks could precipitate escalatory decisions based on false premises a pathway to catastrophe that the Bulletin explicitly identifies as a novel concern in 2025 and 2026.

CLIMATE CHANGE: THE SLOW EMERGENCY AND ITS FAST HEALTH CONSEQUENCES

Climate change entered the Doomsday Clock's formal deliberations in 2007. By 2026, it had become one of the three central pillars of the Bulletin's risk assessment. The 2026 statement describes an array of adverse climate trends whose medical sociological significance is difficult to overstate. Atmospheric carbon dioxide has reached 150% pre-industrial levels. Global average temperature in 2024 was the warmest in 175 years of observation. Global sea levels have reached a record high. Extreme precipitation and drought events are intensifying and multiplying, with large-scale population displacements in the Congo River Basin, Peru, the Amazon, southern Africa, and southeast Brazil.

Medical sociology approaches climate change as a structural determinant of health operating through multiple pathways simultaneously. The most immediate health consequences are those associated with extreme weather events: heat-related mortality (Europe suffered more than 60,000 heat-related deaths for the third time in four years in the period covered by the 2026 statement), flood-associated infectious disease, drought-linked food insecurity, and the trauma and mental health sequelae of disaster displacement. But climate change also operates through slower, more insidious pathways: the geographic expansion of vector-borne diseases such as malaria, dengue, and Lyme disease; the decline of agricultural yields threatening nutritional security; the salinisation of freshwater supplies; and the structural collapse of health systems in regions facing recurrent climate disasters.

The sociological dimension of climate health risk is its profound inequality. Climate change is, in the language of environmental justice, a case of "differential exposure and differential vulnerability": those nations and communities least responsible for historical greenhouse gas emissions the small island states, the sub-Saharan communities, the South Asian river deltas face the greatest health risks. This structural injustice renders climate change simultaneously a public health emergency and a human rights crisis and demands responses that address the distribution of both risk and remedy [16].

GEOCLIMATIC RISK: TIPPING POINTS AND SYSTEMIC COLLAPSE

Beyond the incremental warming catalogued in climate change science lies a further category of geoclimatic risk that medical sociologists and global health scholars have been slower to incorporate into their frameworks: the possibility of non-linear, threshold-crossing, and potentially irreversible shifts in Earth's climate system. These "tipping points" including the destabilisation of the West Antarctic Ice Sheet, the dieback of the Amazon rainforest, the collapse of Atlantic meridional overturning circulation (AMOC), and the thawing of Arctic permafrost releasing stored methane represent discontinuities in which gradual warming triggers cascading, self-reinforcing changes that outpace the adaptive capacity of both natural and social systems.

The concept of geoclimatic risk requires medical sociology to extend its conventional temporal and spatial scales. The health consequences of tipping point events would be global, multigenerational, and effectively irreversible on any humanly meaningful timescale. The sociological literature on disaster preparedness and health system resilience is largely calibrated to recoverable catastrophes events from which social systems can, over time, be rebuild. Geoclimatic tipping points require a different analytical vocabulary: one concerned not with recovery but with civilisational continuity.

The inclusion of geoclimatic risk within the Doomsday Clock's deliberative framework is sociologically significant precisely because it signals a recognition within the scientific community that the risks being catalogued are not merely policy failures amenable to technocratic correction, but potential threshold crossings that may permanently alter the biophysical conditions within which human health and social organisation are possible. Medical sociology's engagement with this possibility is, at present, nascent; the 2026 Clock setting provides a compelling mandate for its development.

THE EROSION OF MULTILATERAL GOVERNANCE: STRUCTURAL RISK AT THE GLOBAL LEVEL

Underlying each of the threat domains examined in this article is a common structural factor: the progressive erosion of the multilateral governance frameworks through which collective responses to global risks have historically been organised. The 2026 Bulletin statement is explicit on this point, describing the collapse of "hard-won global understandings" and the acceleration of "winner-takes-all great power competition" that undermines the international cooperation necessary to address each of the existential threats the Clock catalogues.

Medical sociologists recognise governance as a fundamental social determinant of health at the global level. The institutions of multilateral governance, the World Health Organization, the United Nations Framework Convention on Climate Change, the Non-Proliferation Treaty regime, the Biological Weapons Convention, and the emerging instruments of AI governance function as the social infrastructure through which collective action problems in health and existential risk are, in principle, managed. When these institutions are weakened by geopolitical rivalry, underfunded by member states, or delegitimised by disinformation, the capacity of the international community to coordinate responses to shared threats is proportionally diminished.

The sociology of organisations and institutions provides tools for understanding how multilateral governance fails: through principal-agent problems, through free-rider dynamics, through the capture of international bodies by powerful states or non-state actors, and through the erosion of the normative consensus on which rule-based international orders depend. Each of these mechanisms is operative in the current moment, and each has direct implications for the probability that the existential risks catalogued by the Doomsday Clock will be adequately governed before they produce catastrophic outcomes [17].

SUMMARY OF THREAT DOMAINS: A MEDICAL SOCIOLOGICAL OVERVIEW

The following matrix summarises the ten principal threat domains examined in this article, with their primary health consequences and key sociological dimensions:

Nuclear Threats

Mass casualties, radiation illness, agricultural collapse, nuclear winter, psychic numbing, and chronic population-level anxiety.

Artificial Intelligence

Algorithmic health bias, AI-enabled bioweapon design, autonomous weapons escalation, and exacerbated health inequity between Global North and South.

Biotechnology

Engineered pandemic risk, mirror-life existential threat, dual-use research dilemmas, and inadequate international biosafety governance.

Cyberspace

Health infrastructure disruption, hospital ransomware fatalities, pharmaceutical supply chain attacks, and differential vulnerability of LMICs.

Misinformation

Vaccine hesitancy, pandemic mismanagement, erosion of scientific authority, and AI-amplified disinformation at civilisational scale.

Climate Change

Heat mortality, vector-borne disease expansion, nutritional insecurity, disaster displacement, and structurally inequitable health burden distribution.

Geoclimatic Risk

Non-linear tipping points, irreversible biosphere alteration, threats to civilisational continuity, and limits of adaptive health systems capacity.

Governance Erosion

Collapse of multilateral health architecture, WHO underfunding, NPT weakness, and the fragmentation of global collective action capacity.

Biodiversity Loss

Zoonotic spillover amplification, pharmacological knowledge loss, ecosystem services collapse, and the undermining of food and water security.

Pandemic Preparedness

Structural gaps in surveillance, inequitable vaccine access, health system fragility in LMICs, and the social production of outbreak vulnerability.

THE CLOCK AS SOCIAL DETERMINANT OF HEALTH: SYMBOLIC POWER AND PUBLIC AFFECT

Beyond its role as a scientific risk communication tool, the Doomsday Clock functions as a powerful symbolic object whose social effects on health deserve analysis in their own right. In Bourdieu's terms, the Clock possesses substantial *symbolic capital*: its movement is a media event of global reach, capable of temporarily arresting public attention around the problem of existential risk. Its authority derives not from governmental power but from the scientific field from the credibility of the physicists, climate scientists, and biosecurity experts who deliberate its setting, and from the institutional prestige of the Bulletin of the Atomic Scientists, founded by Einstein and Oppenheimer.

Yet the sociological literature on risk communication also cautions against the unexamined assumption that scientific authority translates straightforwardly into public action. The history of the Doomsday Clock itself is instructive: despite the Clock's progressive advancement toward midnight over the past decade from 17 minutes in 1991 through 100 seconds in 2020, 90 seconds in 2023, and now 85 seconds in 2026 the international policy responses demanded by the Bulletin have not been forthcoming. This failure of translation from scientific risk communication to political action is a central problem of the sociology of knowledge, and one with direct public health implications.

Medical sociologists working on health communication have identified several mechanisms through which accurate risk information fails to produce protective behaviour: cognitive overload in the face of multiple simultaneous threats, temporal discounting (the tendency to weight immediate concerns over long-term risks), motivated reasoning (the filtering of risk information through ideological commitments), and what Beck [15] (1992) termed the "invisibility" of manufactured risks that cannot be apprehended through ordinary sensory experience. Each of these mechanisms operates in relation to the Doomsday Clock's threat domains, and each represents a target for theoretically informed public health intervention.

Implications for Global Health Governance and Medical Sociological Practice

This article's analysis generates several implications for global health governance and for the practice of medical sociology as an engaged academic discipline. First, the institutional architecture of global health must be expanded to incorporate existential risk explicitly within its mandate. The World Health Organization's work on pandemic preparedness, while valuable, addresses only one dimension of the threat landscape catalogued by the Doomsday Clock. A comprehensive approach to planetary health governance would require institutional mechanisms for coordinating responses to nuclear, AI, biotechnological, and geoclimatic risks in their health dimensions mechanisms that currently do not exist or operate at insufficient scale.

Second, the social determinants of health framework currently applied primarily to socioeconomic, environmental, and behavioural determinants operating at the national and community level must be extended to encompass the structural determinants of existential risk at the global level. Governance failure, geopolitical rivalry, the concentration of dangerous technology in the hands of unaccountable actors, and the erosion of multilateral cooperation are all, in the terms of this article, global-level social determinants of health whose medical sociological investigation is both theoretically productive and practically urgent.

Third, medical sociology has a distinctive contribution to make to the problem of existential risk communication. Its theoretical resources risk society theory, the sociology of knowledge, health communication research, and the analysis of power and inequality in health equip it to understand and intervene in the processes through which scientific risk information is socially received, interpreted, contested, and translated (or not) into collective action. The Doomsday Clock's failure to generate commensurate political response is not a failure of science; it is a social failure that demands sociological analysis.

HISTORICAL TRAJECTORY: FROM SEVEN MINUTES TO 85 SECONDS

1947

Clock debuts at 7 minutes to midnight. The nuclear arms race between the US and USSR defines the threat landscape.

1953

Moved to 2 minutes the first post-nuclear testing crisis. Both superpowers now possess hydrogen bombs.

1991

Moved back to 17 minutes the furthest from midnight ever following the end of the Cold War and US-Soviet arms reduction treaties.

2007

Climate change incorporated for the first time. Clock at 5 minutes. The threat landscape formally expands beyond nuclear risk.

2020

Clock reaches 100 seconds the first time it has been set in seconds rather than minutes. Biosecurity and AI enter formal deliberations.

2023

90 seconds moved forward following Russia's nuclear threats in Ukraine and global failure to reduce emissions.

2025

89 seconds AI in warfare and social media formally cited. The Clock moves for the first time in seconds, not minutes.

2026

85 seconds the closest in Clock history. Governance collapse, mirror-life biotechnology, and three nuclear theatres cited alongside climate and AI.

CONCLUSION: 85 SECONDS AND THE SOCIOLOGICAL IMPERATIVE

The Doomsday Clock's current setting of 85 seconds to midnight is not merely a scientific assessment of geopolitical peril. It is a social fact in Durkheim's sense of a collective representation that exists independently of individual consciousness and exercises coercive power over social life. Its meaning is produced and reproduced through the institutions, practices, discourses, and power relations that constitute the international scientific community, the global media system, and the political cultures of nation-states. Understanding and intervening in that social process of meaning-making is, this article has argued, both a legitimate and an urgent task for medical sociology.

The ten threat domains examined in this article nuclear warfare, artificial intelligence, biotechnology, cyberspace, misinformation, climate change, geoclimatic risk, biodiversity loss, pandemic preparedness, and governance erosion are not discrete, independent hazards. They are interconnected nodes in a complex system of civilisational risk, each amplifying the others, each differentially distributed across populations structured by global inequalities of power and wealth. Their health consequences are correspondingly complex, cumulative, and inequitably distributed: the populations least responsible for creating these threats are, in general, the populations most exposed to their health consequences.

If Virchow was correct that politics is medicine on a grand scale, then the politics of existential risk is medicine on the grandest scale imaginable the medicine of civilisational survival. Medical sociology, with its dual commitment to rigorous analysis and social justice, is uniquely positioned to contribute to the intellectual and political project of moving the Clock's hands away from midnight. The imperative to do so has never been more urgent.

"The Clock cannot move away from catastrophe. It has done so in the past, because wise leaders acted under pressure from informed and engaged citizens around the world." Bulletin of the Atomic Scientists, 2025 Doomsday Clock Statement

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