

Ending nuclear weapons, before they end us

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Abstract

Introduction: This editorial emphasises the urgent need to confront the serious threat posed by nuclear weapons, focusing on their devastating effects on health, the environment, and human well-being. It discusses the upcoming vote at the World Health Assembly (WHA) to renew the World Health Organisation's (WHO) mandate to study these impacts, along with a new United Nations (UN) scientific panel that will analyse the risks associated with nuclear war.

Main Text: Although the number of nuclear weapons has decreased since the Cold War, today's global stockpile is still dangerously large. Modernisation efforts and ongoing geopolitical tensions increase the chances they might be used. The editorial points out that nuclear conflict could lead to mass extinction, severe climate change, and widespread famine. It criticises the lack of progress in disarmament and calls for immediate steps, such as adopting "no first use" policies and joining the Treaty on the Prohibition of Nuclear Weapons. The authors encourage health professionals to support the renewed WHO mandate and back the UN panel's work in gathering current evidence to guide policies and inform the public.

Conclusion: The piece frames nuclear disarmament as a critical health issue, emphasising the need for strong political leadership to eliminate these weapons. It appeals to health professionals to rally behind evidence-based policies and the upcoming WHA resolution, pointing out that solid research and public advocacy are essential to prevent disaster.

Keywords: Global Health, Disarmament, Nuclear Weapons, Public Health, Radiation Injuries

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Introduction

Nuclear weapons remain one of the greatest threats to human survival and the health of our planet. Eighty years after Hiroshima and Nagasaki, tensions around nuclear arms are rising again, driven by geopolitical conflicts, arms races, and disarmament treaty breakdowns. This editorial urges health professionals to support renewing the WHO mandate to investigate the health impacts of nuclear weapons and encourages backing a UN-led scientific review of their effects. By using solid evidence and actively advocating, the health community can play a key role in dismantling this ongoing danger.

Main Text

This May, the World Health Assembly (WHA) will vote on re-establishing a mandate for the World Health Organisation (WHO) to address the health consequences of nuclear

weapons and war (1). Health professionals and their associations should urge their governments to support such a mandate and support the new UN comprehensive study on the effects of nuclear war.

The first atomic bomb exploded in the New Mexico desert 80 years ago, in July 1945. Three weeks later, two relatively small (by today's standards), tactical-size nuclear weapons unleashed a cataclysm of radioactive incineration on Hiroshima and Nagasaki. By the end of 1945, about 213,000 people were dead (2). Tens of thousands more have died from late effects of the bombings.

Last December, Nihon Hidankyo, a movement that brings together atomic bomb survivors, was awarded the Nobel Peace Prize for its "efforts to achieve a world free of nuclear weapons and for demonstrating through witness testimony that nuclear weapons must never be used again" (3). For the Norwegian Nobel Committee, the award validated the most fundamental human right: the right to live. The Committee

warned that the menace of nuclear weapons is now more urgent than ever before. In the words of Committee Chair Jørgen Watne Frydnes, "it is naive to believe our civilisation can survive a world order in which global security depends on nuclear weapons. The world is not meant to be a prison in which we await collective annihilation." (4) He noted that our survival depended on keeping intact the "nuclear taboo" (which stigmatises the use of nuclear weapons as morally unacceptable) (5).

The nuclear taboo gains strength from recognition of compelling evidence of the catastrophic humanitarian consequences of nuclear war, its severe global climatic and famine consequences, and the impossibility of any effective humanitarian response. This evidence contributed significantly to ending the Cold War nuclear arms race (6, 7).

While the number of nuclear weapons is down to 12,331 now, from their 1986 peak of 70,300 (8), this is still equivalent to 146,605 Hiroshima bombs (9) and does not mean humanity is any safer (10). Even a fraction of the current arsenal could decimate the biosphere in a severe mass extinction event. The global climate disruption caused by the smoke pouring from cities ignited by just 2% of the current arsenal could result in over two billion people starving (11).

A worldwide nuclear arms race is underway. Deployed nuclear weapons are increasing again, and China, India, North Korea, Pakistan, Russia, and the UK are all enlarging their arsenals. An estimated 2,100 nuclear warheads in France, Russia, the UK, the US, and, for the first time, also in China, are on high alert, ready for launch within minutes (8). With disarmament in reverse, extensive nuclear modernisations underway, multiple arms control treaties abrogated without replacement, no disarmament negotiations in evidence, nuclear-armed Russia and Israel engaged in active wars involving repeated nuclear threats, Russia and the US deploying nuclear weapons to additional states, and widespread use of cyberwarfare, the risk of nuclear war is widely assessed to be greater than ever. This year, the Doomsday Clock was moved closest to midnight since the Clock's founding in 1947 (10).

Led by Ireland and New Zealand, in late 2024, the United Nations General Assembly (UNGA) voted overwhelmingly to establish a 21-member independent scientific panel to undertake a new comprehensive study on the effects of nuclear war (12), with its final report due in 2027. Noting that "removing the threat of a nuclear war is the most acute and urgent task of the present day", the panel has been tasked with examining the physical effects and societal consequences of a nuclear war on a local, regional and planetary scale. It will examine the climatic, environmental and radiological effects of nuclear war, and their impact on public health, global socioeconomic systems, agriculture and ecosystems.

The resolution calls upon UN agencies, including WHO, to support the panel's work, including by "contributing

expertise, commissioned studies, data and papers". All UN Member States are encouraged to provide relevant information, scientific data and analyses; facilitate and host panel meetings, including regional meetings; and make budgetary or in-kind contributions. Such an authoritative international assessment of evidence on the most acute existential threat to humankind and planetary health is long overdue. The last such report dates from 1989. It is shameful that France, the UK and Russia opposed this resolution (13). In 1983 and 1987 (14), WHO convened an international committee of scientists and health experts to study the health effects of nuclear war. Its landmark, authoritative reports were influential and an excellent example of the WHO fulfilling its constitutional mandate "to act as the directing and coordinating authority on international health work". In 1993, WHO produced an additional shorter report on the health and environmental effects of nuclear weapons, which included discussion of the production chain of nuclear weapons, including processing, testing and disposal (15).

However, despite the WHA having mandated the WHO to report periodically on relevant developments, no further work was undertaken, and in 2020, the WHO's mandate on nuclear weapons and health lapsed.

The Marshall Islands, Samoa and Vanuatu, supported by seven co-sponsoring states and International Physicians for the Prevention of Nuclear War (IPPNW), are working to renew WHO's mandate. They are seeking wide support for a resolution on the health effects of nuclear weapons/war at this year's WHA in Geneva on 19-27 May (1). WHO would then re-establish a programme of work on this most critical threat to health, and be able to lead strongly in providing the best health evidence to the UN panel.

Health professionals are well aware of how crucial accurate and up-to-date evidence is to making good decisions. We and our organisations should support such a renewed mandate by urging our national WHA delegates to vote in support and commit the modest funds needed to re-establish WHO's work programme, especially now, as the organisation faces severe financial strain with the US decision to withdraw its membership.

Our joint editorial in 2023 (16) on reducing the risks of nuclear war and the role of health professionals, published in over 150 health journals worldwide, urged three immediate steps by nuclear-armed states and their allies: adopt a "no first use" policy, take their nuclear weapons off hair-trigger alert, and pledge unequivocally that they will not use nuclear weapons in any current conflicts they are involved in. We also urged nuclear-armed states to work for a definitive end to the nuclear threat by urgently starting negotiations for a verifiable, time-bound agreement to eliminate their nuclear arsenals, and called on all nations to join the Treaty on the Prohibition of Nuclear Weapons (17). It is an alarming failure of leadership that no progress has been made on these needed measures, nor have many other feasible steps been taken away from the brink, acting on the obligation of all states to achieve nuclear disarmament. Nine

states jeopardise all humanity and the biosphere by claiming an exclusive right to wield the most destructive and inhumane weapons ever created. The world desperately needs the leaders of these states to freeze their arsenals, end the modernisation and development of new, more dangerous nuclear weapons, and ensure that new technology such as artificial intelligence can never trigger the launch of nuclear weapons.

The UN scientific panel and a renewed mandate for WHO's work in this area can provide vital, authoritative and up-to-date evidence for health and public education, evidence-based advocacy and policies, and the mobilised public concern needed to trigger decisive political leadership. This is a core health imperative for all of us.

Conclusion

Nuclear arsenals still threaten the future of humanity, with current stockpiles capable of causing a global catastrophe. The editorial calls for urgent measures: freezing nuclear stockpiles, adopting "no first use" policies, and pushing forward disarmament negotiations. It urges health professionals to lead efforts by demanding policies based on evidence, supporting the renewal of the WHO mandate, and raising public awareness. The risk is too high to ignore—eliminating nuclear weapons is critical to ensuring our survival.

Abbreviations

WHA: World Health Assembly

WHO: World Health Organisation

UN: United Nations

UNGA: United Nations General Assembly

IPPNW: International Physicians for the Prevention of Nuclear War

WAME: World Association of Medical Editors

US: United States

UK: United Kingdom

AI: Artificial Intelligence

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