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Taking a Stand Against Nuclear Proliferation: The Pediatrician's Role

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ABSTRACT

Nuclear weapons pose a grave threat to the health of children. The Nuclear Nonproliferation Treaty, which for almost 40 years has limited the spread of nuclear weapons, is in danger of unraveling. At the 2000 Nuclear Nonproliferation Treaty Review Conference, 180 countries, including the United States, agreed on 13 practical steps to implement Article VI of the treaty, which calls for nuclear disarmament. However, the United States has acted in contravention of several of those disarmament steps, with announced plans to develop new nuclear weapons and to maintain a large nuclear arsenal for decades to come. Pediatricians, working individually and through organizations such as the American Academy of Pediatrics and International Physicians for the Prevention of Nuclear War, can educate the public and elected officials regarding the devastating and irremediable effects of nuclear weapons on children and the need for policies that comply with and strengthen the Nuclear Nonproliferation Treaty, rather than undermining it. For the children of the world, our goal must be a nuclear weapons convention (similar to the chemical and biological weapons conventions) that would prohibit these weapons globally.

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Key Words

nuclear warfare, physicians' role, radiation injuries, pediatricians, social responsibility, medical societies

Abbreviations

IPPNW—International Physicians for the Prevention of Nuclear War
NPT—Nuclear Nonproliferation Treaty
START—Strategic Arms Reduction Treaty

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IN MARCH 2007, the American Academy of Pediatrics Annual Leadership Forum defeated Resolution 69-T, proposed by California Chapter 1, which declared our opposition to plans by the United States to develop new nuclear weapons and announced our support of the Nuclear Nonproliferation Treaty (NPT).^{*} Although those present did not express any great enthusiasm for new or existing nuclear weapons, there was concern that, as an organization, the American Academy of Pediatrics should focus on issues that directly affect children's health, in which pediatricians have greater expertise and could have a greater impact. As the author of the resolution, I am writing to make the case that nuclear proliferation could have an enormous direct effect on children's health, that there is proud historical precedent for energized and informed physicians to catalyze critical changes in nuclear policy, and that now we must mobilize physicians again. Our goals must be to save the NPT and to negotiate a nuclear weapons convention (similar to the chemical and biological weapons conventions) that declares the development, production, transfer, or use of these weapons illegal under international law.

What makes nuclear proliferation a pediatric issue? Nuclear weapons are tremendously destructive. Bombs the size of those dropped on Hiroshima and Nagasaki, which are small by today's standards, could instantly kill tens of thousands of children, not only through blast and heat but also through direct and fallout radiation. Because of their greater respiratory rates and proximity to the ground, children would have greater exposure to radiation than adults; moreover, children are more susceptible than adults to radiation-induced cancer,¹ which could lead to significant additional morbidity and deaths in the months and years after exposure. Adults (and other living things) also would be catastrophically affected by any use of nuclear weapons. Therefore, nuclear proliferation is a pediatric issue primarily because of the universal and abhorrent destructive capability of nuclear weapons, not because of children's particular susceptibility to their effects. Pediatricians are one important group of physicians, just as physicians are one important group of citizens, who must work to diminish the likelihood that nuclear weapons will ever be used again.

Physicians have played a critical role in shaping nuclear weapons policies in at least 2 previous eras. In the early 1960s, Physicians for Social Responsibility was founded with a series of articles in the *New England Journal of Medicine* describing the medical consequences of thermonuclear war.²⁻⁴ These articles presented compelling and indisputable evidence that there could be no effective medical response after thermonuclear weapons had been used, and they alerted the medical profession and the public to our need to prevent, rather than to prepare for, nuclear war. At that time, Cold War tensions were high (the Cuban Missile Crisis occurred in 1962), and nuclear weapons were tested above ground, on Pacific islands, and in Nevada, among other places. These tests generated "fallout" (ie, the settling from the atmosphere of toxic radioactive chemicals produced in atomic explosions), which caused death and disease

*A similar resolution passed in 2008. See note added in proof.

among people downwind from the explosions. Efforts by Physicians for Social Responsibility contributed to the United States, the Soviet Union, and Great Britain signing the Limited Test Ban Treaty in 1963, which prohibited such tests.⁵

Physicians also played a major role in the early 1980s, when there was renewed Cold War tension following the Soviet invasion of Afghanistan in 1979, and the Soviet Union and the North Atlantic Treaty Organization were planning to place intermediate-range nuclear weapons in Europe. At that time, members of President Ronald Reagan's administration spoke of "prevailing" in a nuclear war.^{5,6} The Federal Emergency Management Agency was developing plans to evacuate people from target cities to neighboring communities over several days (the Crisis Relocation Plan), which it claimed could limit fatalities to ~20% of the US population (at that time, ~45 million people).⁵ Physicians for Social Responsibility, revitalized by pediatrician Helen Caldicott and others, held a series of conferences on the medical consequences of nuclear war, with slideshows detailing the horrible devastation of Hiroshima and Nagasaki, and pointed out that nuclear weapons had become up to 1000 times more powerful than the bombs dropped on Japan in 1945. These conferences, articles,⁷⁻¹⁸ and monographs¹⁹⁻²¹ questioned the feasibility, wisdom, and morality of the Crisis Relocation Plan and the notion of prevailing in a nuclear war. Physicians got the message and undertook efforts to educate the public. Physicians from the United States and the former Soviet Union formed International Physicians for the Prevention of Nuclear War (IPPNW), which quickly expanded internationally with the message that the primary medical response to the threat of nuclear war must be prevention. This effort was successful; in 1985, Ronald Reagan and Mikhail Gorbachev jointly declared, "A nuclear war cannot be won and must never be fought."²² In 1985, IPPNW was awarded the Nobel Peace Prize for its efforts to educate the world about the danger of nuclear weapons.²³

With the end of the Cold War, the threat of nuclear war seemed to recede, and nuclear disarmament dropped off the radar screen for many of us. Nuclear weapons are now back in the news, with increasing concern about the threat of nuclear terrorism,²⁴ nuclear proliferation in Iran and North Korea, and US plans to develop new nuclear weapons.^{25,26}

What can pediatricians do? One step, which was the purpose of Resolution 69-T, is to become informed about the NPT and to work to enforce its provisions, rather than allowing them to become eviscerated by contravening policies and behavior. For 38 years, the NPT has been the key treaty that has largely prevented the spread of nuclear weapons to more countries. The binding principle of the NPT was that all signatories vowed to cooperate to prevent the spread of nuclear weapons to countries that did not already have them. In return, nuclear technology for peaceful uses was to be made available to all, and the states with nuclear weapons agreed to pursue nuclear disarmament. This last part of the agreement is contained in Article VI of the NPT, "Each of the Parties

to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control."²⁷

In 1970, at the time the NPT was enacted, there were 5 nuclear-weapons states, namely, the United States, the Soviet Union, England, France, and China. Israel, India, and Pakistan did not sign the treaty, and North Korea subsequently withdrew. However, other countries, including South Africa, Brazil, South Korea, Taiwan, and Argentina, each abandoned their nuclear weapons programs after signing the NPT. Belarus, Kazakhstan, and Ukraine, which had inherited nuclear weapons when the Soviet Union dissolved, returned their nuclear weapons to Russia and joined the NPT as non-nuclear-weapons states.²⁸ In the absence of the NPT, these countries and many more probably would have nuclear weapons today.

Article X of the NPT specified that, after 25 years, a conference would be convened to decide whether the treaty should continue indefinitely or be extended for additional fixed periods. In 1995, the treaty was extended indefinitely, with a requirement for continuous reviews of progress at 5-year intervals, with the express purpose of maintaining pressure on the nuclear-weapons states to adhere to their Article VI disarmament commitment.²⁹

IPPNW was 1 of 3 groups that launched the World Court Project to bring the legal status of nuclear weapons before the International Court of Justice. In 1996, the Court ruled unanimously that, "There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control."³⁰

At the 2000 NPT Review Conference, significant progress was made. Delegations from 180 countries (including the United States) agreed on 13 practical steps to implement Article VI.³¹ Because implementation of Article VI is in the interests of us, our children, future generations, and all peoples around the world, it is worth examining discrepancies between current US policy and several of the 13 practical steps.

Step 1 was ratification of the Comprehensive Test Ban Treaty. The administration of George W. Bush opposes ratification and in fact has requested funding to shorten the time needed to resume nuclear testing, should the United States decide unilaterally to end the current testing moratorium.³²

Step 3 was negotiation of a treaty banning production of fissile material for nuclear weapons. In November 2004, the United States was the only country to vote against a United Nations General Assembly resolution urging negotiation of such a treaty (Israel and the United Kingdom abstained; 147 countries voted in favor).³³ The administration of George W. Bush opposes any treaty that includes provisions for verifying compliance, citing concern that such verification would be both too intrusive and too costly.³⁴

Step 5 was the adoption of the principle of irrevers-

ibility, that is, the requirement that disarmament agreements lead to weapons being destroyed rather than only temporarily dismantled. However, unlike previous treaties, the 2002 United States-Russian Strategic Offensive Reductions Treaty does not require that any nuclear weapons be destroyed; it requires only that they not be "operationally deployed." In fact, a large number of warheads would be maintained in a "responsive force," capable of redeployment within weeks or months.³⁵

Step 6 was "an unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals. . . ."³¹ However, the administration proposes to spend billions of dollars on a new nuclear-weapon production infrastructure,²⁵ nicknamed "Bomplex 2030" because it will not be fully operational until the year 2030. This proposal is inimical to the timely and complete elimination of our nuclear arsenal and is evidence of a lack of commitment to Article VI of the NPT.

Step 7 was to achieve early entry into force of the 1993 Strategic Arms Reduction Treaty (START)-II, to conclude START-III, and to strengthen the 1972 Anti-Ballistic Missile Treaty. However, the administration of George W. Bush unilaterally withdrew from the Anti-Ballistic Missile Treaty, which led Russia to withdraw from START-II the following day. Although the number of warheads allowed under the 2002 Strategic Offensive Reductions Treaty is smaller than that for START-II, the lack of provisions for destroying the warheads and prohibiting multiple independently targetable reentry vehicles (multiple-warhead missiles that are considered destabilizing because they increase the advantage of striking first) make the Strategic Offensive Reductions Treaty a deficient replacement for START.

Finally, step 9 required "a diminishing role for nuclear weapons in security policies."³¹ Instead, the administration of George W. Bush has expanded the range of circumstances under which nuclear weapons might be used, including preemptive use against enemies "using or intending to use" weapons of mass destruction.³⁶ This potential role seems to extend not only to intended use but also to intended acquisition. Asked specifically whether the United States is considering the use of nuclear weapons against Iran, President Bush answered, "All options are on the table," a phrase echoed by major Democratic and Republican presidential candidates.³⁷

The May 2005 NPT Review Conference was, in the words of Harald Mueller, Secretary General of the United Nations Weapons of Mass Destruction Commission, "a disaster . . . the biggest failure in the history of this Treaty."³⁸ Mueller ascribes "decisive responsibility" for the failure of the conference to the United States, for "pursuing with great determination the John Bolton [former US representative to the United Nations] line of devaluing multilateralism and international law."³⁸ The United States had sought to focus the conference on nonproliferation, rather than disarmament, refusing to accept or even to discuss the 13 practical steps and other agreements that arose from the 1995 and 2000 NPT Review Conferences.^{38,39}

The position of the administration of George W. Bush,

that possession of nuclear weapons and even threats to use them are legitimate for us but not for others, sends the wrong message to the world. As Mohamed ElBaradei, Director General of the International Atomic Energy Agency and winner of the 2005 Nobel Peace Prize, asserted, "We must abandon the unworkable notion that it is morally reprehensible for some countries to pursue weapons of mass destruction yet morally acceptable for others to rely on them for security and indeed to continue to refine their capacities and postulate plans for their use."⁴⁰

ElBaradei warns that time is running out, "We have come to a fork in the road: either there must be a demonstrated commitment to move toward nuclear disarmament, or we should resign ourselves to the fact that other countries will pursue a more dangerous parity through proliferation."⁴¹ The urgency of the choice was underscored earlier this year, when the Bulletin of the Atomic Scientists advanced its Doomsday Clock from 7 minutes before the doomsday hour of midnight to 5 minutes before midnight, the closest it has been since 1984.⁴²

What fork in this road will we take? As physicians responsible for the health and well-being of this and future generations of children, pediatricians cannot abdicate their obligation to make this historical decision. If we wish to leave to our children and grandchildren a world free of nuclear weapons,⁴³ then we need to begin seeing nuclear proliferation as a pediatric issue.

There are several steps we can take. First, we can urge the American Academy of Pediatrics to join other medical organizations that already have endorsed the abolition of nuclear weapons, including the American Medical Association, the American College of Physicians, the American Public Health Association, and national medical organizations around the world.⁵ Second, we can urge these organizations to work with IPPNW and other organizations focused on nonproliferation to educate and to inspire their members, elected officials, and the public with a vision of a world free of nuclear weapons, as well as pointing to concrete steps to achieve this goal. Finally, individual pediatricians can join Physicians for Social Responsibility (or the IPPNW affiliate in their country), educate themselves about this issue, and become spokespeople in other organizations to which they belong and in their communities. As environmentalist Paul Hawken said, "You can blame people who knock things over in the dark, or you can begin to light candles. You're only at fault if you know about the problem and choose to do nothing."⁴⁴

NOTE ADDED IN PROOF

On March 15, 2008 the following resolution passed at the AAP Annual Leadership Forum:

Resolved, that the Academy call on the United States and other governments to abandon plans to develop and deploy new nuclear weapons because of the threat they pose to children's health and be it further Resolved, that the Academy call on the countries of the world to affirm their commitment to a world free

of nuclear weapons for the protection of the lives and health of current and future generations of children.

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