



Global Security: A Role for Health Professionals

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A growing concern about a number of interlinked transnational threats to human well-being and survival, such as climate change, underdevelopment, population growth, inappropriate consumption patterns in developed countries, and decreasing food stocks, suggests the need to develop the concept of global security. This concept incorporates the necessity of averting other global threats to humanity, as well as preventing nuclear war. Global security can be seen as having four main dimensions: military, environmental, economic, and civil, which are themselves interlinked. Health professionals have important contributions to make in advancing knowledge and educating the public and colleagues about health-related aspects of this concept, which include the effects of conflict, the impacts on health of global environmental change, and the problems of population growth and underdevelopment. Activities concerning these issues can take place in a variety of professional organisations, including International Physicians for the Prevention of Nuclear War (IPPNW). [PSRQ 1991;2:69-95]

Although the decline of the Cold War is leading to a reduction in the public perception of the danger of nuclear war, instability in the Baltic states and the Gulf crisis threaten to negate much

of what has been achieved. Other global spectres are also beginning to press in. Global warming, many times greater than that previously experienced, will result from the accumulation of greenhouse gases produced by human activities primarily in the developed countries of the north, but also contributed to by deforestation and other activities in the developing countries of the south. Climate change will affect food production, ecological systems, sea level, and human health [1-4]. Although the potential impacts are difficult to quantify accu-

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rately with the present state of knowledge, they will be global in nature and will occur against a background of other disturbing trends, including expanding population in the Third World, stratospheric ozone depletion, a reduction in biodiversity, increasing desertification, droughts, and decreasing food stocks. Taken together, these factors represent potent threats to human welfare and survival in the next century and beyond.

Most medical education is concerned with the role of health professionals in relation to individual patients. There is also the historically important tradition of public health with its concern for populations. It is now essential to develop a commitment that builds on both of these approaches to create a global approach to human health. This should embrace both the need for an adequate health care infrastructure for the millions who have no access to health care and an ecological approach to health that emphasizes the importance of sustainable development and hence takes into account the health and survival of future generations. Thus, just as health professionals have spoken out about the genocidal nature of nuclear weapons and the threat they pose to human survival, they could have a major role in pointing to the need for policies to preserve the global environment whilst promoting human well-being.

GLOBAL SECURITY

The idea of global security stems from the recognition that threats to human health and survival come not only from military capabilities, but also from a powerful combination of nonmilitary factors, the most important of which are probably climate change and underdevelopment. The use of the word "global" denotes an acceptance that the problems concerned are transnational and will require collaborative solutions. "Security" implies a freedom from danger. Security in this context can be seen as having four major dimensions: military, environmental, economic, and civil (that is, the preservation and development of social structures that fulfill essential functions, including law and order and the supply and distribution of food and supplies). These main dimensions of security interact with each other in manifold and sometimes complex ways. Military conflict may result in environmental damage, as has

been the case in the Gulf war when the Iraqis set fire to Kuwaiti oil wells and initiated widespread pollution of the Persian Gulf with oil. Nuclear war would, of course, have much more devastating environmental consequences. Military conflict also has major impacts on economic security. In the case of the Gulf conflict, noncombatant countries, particularly Jordan, have suffered economic hardship in addition to the widespread destruction of infrastructure in Kuwait and Iraq. Finally, military conflict leads to destruction of civil institutions and societal norms resulting all too frequently in a breakdown of law and order and supply of essential provisions to civilians.

Environmental degradation is a consequence of both inappropriate patterns of consumption and energy use in the developed countries and growth of population in many developing countries leading to increased use of marginal lands. This may be both a cause and a consequence of political tension and international disputes. For instance, pressure on existing water sources is increasing and many of the sources are shared. The water of each of 155 of the world's 214 first-order river systems is shared by two or more countries and tensions have already occurred involving several rivers, including the Jordan and Euphrates in the Middle East, the Nile in Africa, and the Mekong in Asia. In 1980, for example, President Anwar Sadat of Egypt stated that "If Ethiopia takes any action to block our right to the Nile waters, there will be no alternative for us but to use force" [5]. Another environmental problem exists in El Salvador, one of the most turbulent nations of Central America, which has been wracked by conflict for many years, and which suffers from severe environmental degradation including marked soil erosion. This has resulted in large numbers of landless peasants who migrate to cities and to neighbouring countries. Environmental refugees are also a major problem in Africa where, in 1984 through 1985, some 10 million individuals left their homes, many of them victims of soil erosion that led to famine [6]. Food security is likely to be of growing importance as gains in productivity are wiped out by population growth and environmental damage. Although world grain production increased by 17% in the 1980s, there was an estimated 2% decrease in per capita production over the decade because of population increases [7]. Several factors, such as loss of topsoils, reduced rate of irrigation expansion, and

air pollution, will prevent increased grain production. In many areas, climate change will compound the difficulties as rainfall patterns change and already arid regions become even dryer [8]. Sea level rise will threaten densely populated countries such as Egypt, Bangladesh, and Thailand [9] and will make smaller island states such as the Maldives potentially uninhabitable.

Economic factors may influence security particularly because of the global maldistribution of resources. Economic impoverishment existing in close proximity to relative wealth exerts great pressure for migration of populations, thus threatening the stability of societies. Such migrations, and resulting instabilities, are seen or threatened in the U.S.A. and Mexico, southern Europe and the countries of the Maghreb, and western Europe and the Soviet Union, as well as the other eastern European countries. Over one and a half million people per week are being added to the current population of over 5 billion [10]. More than 1 billion already exist in deep poverty and more than 90% of the population growth will occur in developing countries. Thus, the future is likely to be characterised by even greater polarisation between rich and poor than already exists. Economic disparities may spark off military conflict. This was a factor in the development of the Gulf crisis, which was triggered partly by Iraq's resentment of the oil wealth of Kuwait. Deforestation, a major consequence of underdevelopment, is an important mechanism for the release of greenhouse gases, in addition to its other adverse consequences such as soil erosion and loss of biodiversity. Deforestation is in some cases related primarily to population pressure on forests and in others to the exploitation of the forest by timber companies. Finally, for a number of reasons, underdevelopment is related strongly to growth in population, which has adverse implications for all four dimensions of global security. Thus, underdevelopment can be seen not only as an issue of social justice, but also as one of security.

The civil dimension of security may impinge on the other aspects in a number of ways. Civil unrest may have military consequences. For instance, civil disturbances within the Soviet Union and the rise of nationalism increase fears that the Soviet military might take power. If such were to happen, it would in turn have a major effect on the Western perception of the military threat from the U.S.S.R. and

almost certainly lead to a rekindling of East-West tensions. Lack of democracy in many countries may contribute to excessive military power, which can be directed towards the suppression of public discontent at home and military adventurism abroad—Iraq being a prime example. It also facilitates corruption and thus promotes environmental degradation, for example, through the giving of contracts to exploit forest lands by local landowners or outside interests.

The military aspect of security has received a disproportionate share of world resources, amounting to around one trillion dollars annually in recent years [11]. Since 1960, the developed countries' military spending has been 20 times their development assistance, which has remained less than one-third of targeted amounts. It has been estimated that the cost of reaching the goals adopted at the World Summit for Children will be approximately 20 billion dollars per year for the next decade [11a], a trivial sum compared with military expenditure. The United Nations' Water and Sanitation decade, although given only a small proportion of the financial support needed, would have cost 30 billion dollars a year during the 1980s. This is the equivalent of approximately 10 days of worldwide military expenditure. It would only cost about an extra one billion dollars per annum to provide contraceptives to women already motivated to use them and who currently are unable to afford them [6]. Thus, excessive military expenditure diverts resources from other aspects of security.

Any solutions to the interrelated problems that jeopardize global security will involve major changes in the lifestyle in developed nations and redirection of the aspirations of the developing countries. Much of what is now seen as "advanced" will be perceived as crass and short-sighted. Assuming that transition to a sustainable world is possible, it will be a complex and demanding process. Public opinion may be a fickle ally in this process because of the need for heavy expenditure on energy conservation and renewable sources of energy, in both the developed and the developing countries, and the need to abandon unrestrained freedom to live in a consumer society. For instance, it has been suggested that a sustainable world economy in 2030 would require per capita carbon emissions one-eighth of the current western European level [12]. To effect this reduction will necessitate not only much more efficient energy use, but also a switch

from fossil fuels to renewable energy sources on an unprecedented scale.

THE ROLE OF HEALTH PROFESSIONALS

Health professionals clearly do not have expertise in all aspects of security; no single profession or discipline has complete comprehensive knowledge of the interlinkages between them. Solutions to the threats to global security, if they can be found, will be the result of interdisciplinary cooperation and a profound change in public opinion and political thinking. Health professionals do have a useful contribution to make on a number of key aspects of global security and are in a strong position to promote the kind of interdisciplinary approaches that are necessary. They have knowledge of the effects of conflict on human health, which they have already used to educate public opinion in many countries. They can also contribute to public and professional knowledge about the impacts on health of global environmental change, underdevelopment, and overpopulation.

The population question is an emotive one and there is a danger that concern about population growth could be perceived as reflecting the self-interest of the developed countries in limiting growth in the developing countries. AIDS may have an impact on population growth in a number of countries. There is already good evidence that the governments of many developing countries accept that they need a population policy, but fewer than one-third of recent national development plans included specific demographic targets [10]. Many countries have insufficient resources for effective implementation. Thus, health professionals can help to promote policies to limit population growth that emphasize the need for both provision of contraception and sustainable development. The concept of sustainable development was proposed by the World Commission on Environment and Development [6] and has as its basis the need to consider not only economic advancement, but also the necessity of preserving the environment in the construction of development policies. Sustainable development has important health components including public health, sanitation, and the provision of appropriate health care. All too often, the training of health professionals is not tailored to the needs of the 'developing' countries, or to the delivery of care

to the population of many 'developed' countries. In many cases, disproportionate amounts of money from limited budgets are being spent on tertiary care institutions—major hospitals and medical schools in the cities—at the expense of primary and secondary health care for the wider population. Health professionals have an important role in urging a redirection of resources and training programmes.

The health aspects of environmental degradation also require more study. There is an increasing amount of research on the implications for health of specific environmental hazards, but more needs to be done on the potential effects of global environmental threats, including climate change, stratospheric ozone depletion, and soil erosion. In the area of civil threats to security, health professionals also have a role, and several organisations already exist, such as the medical groups in Amnesty International and Health Professionals for Human Rights, which campaign on human rights from the perspective of health professionals. Amongst other activities, they protest the ill-treatment and lack of health care for prisoners and the detention of medical colleagues for political activities. The relevance of these activities to global security needs to be emphasized. Repressive governments often also pose threats to the security of surrounding countries; this is exemplified by the case of the government of Iraq. Many countries ignored the human rights abuses within the country for many years, failing to perceive the wider dangers of allowing a heavily armed dictatorship to crush all internal opposition.

Health professionals can help educate the public and their colleagues on these issues just as they have with the issue of nuclear war. Health professionals who examine these issues will almost inevitably conclude that more resources need to be spent on environmental security and sustainable development and that human rights violations are not merely an internal matter for the country concerned. Their voices could have influence on decision makers.

SHOULD IPPNW BROADEN ITS FOCUS?

IPPNW was founded in 1980 as a nonpartisan, international federation of physicians' organisations, to develop and disseminate knowledge and undertake activities relevant to the prevention of nuclear war. It achieved prominence in 1985 when it was

awarded the Nobel Peace Prize. IPPNW has never been concerned solely with the medical effects of nuclear war, although these occupied much of the program in the early conferences. As early as 1982 there were working groups on "the arms race and its implications for world health," "denial and stereotyping," and "psychological problems of human fallibility in military-political organisations" [13]. The consumption of economic resources by the burgeoning arms trade and the potential benefits of increasing expenditure on health care, particularly in developing countries, have been major themes in the work of IPPNW and its affiliates [14,15]. Two IPPNW projects, SatelliLife, which seeks to promote satellite communications about health, and the International Commission to Investigate the Health and Environmental Consequences of Nuclear Weapons Production, both represent a natural growth of IPPNW beyond its focus on the prevention of nuclear war.

More recently, several IPPNW affiliates have conducted activities on environmental issues. Physicians for Social Responsibility has formed a task force on the environment and is developing ties to long-standing environmental groups. The German IPPNW affiliate is planning to devote a considerable part of its agenda to environmental matters. The Mexican IPPNW affiliate has a regular radio program on "Nature and Eco-Systems Protection." At the IPPNW regional meeting in San Jose, Costa Rica, delegates representing affiliates from Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Panama unanimously approved a statement that concluded that "the degradation of the ecosystems affects health, and will soon make irreversible the damage to biotic resources (life, forests, jungles) that are now being destroyed in the region." These 10 affiliates called for action to reverse this trend.

What is lacking so far in all these activities within the physicians' movement is an agreed-upon conceptual framework to guide affiliates in deciding on priorities. The concept of global security could provide such a framework. Some may be concerned, however, that global security is too broad a concept and too ill-defined for it to be a focus of activity and would argue that in the case of IPPNW, its strength lies precisely in its narrow focus on nuclear weapons. This may have been true in the past when there was considerable public and political attention on

nuclear weapons, but is much less so now when there is a growing appreciation of the linkages between different threats to human well-being and survival.

The transition from a major focus on the medical aspects of nuclear war to global security should be seen as analogous to the shift that has occurred in medicine. As more has been learned, the profession has moved from thinking about diseases as having a single principal cause to a multifactorial model of causation and from a purely reductionist view of disease to a more holistic approach. As the understanding of mechanisms underlying the main threats to global security improves, the capacity for prevention should grow. It is true that global security is a concept that is still being developed, but it is clear that health professionals can make a useful contribution. A concerted effort by health professionals will ensure that health care is seen as an important element in policies to promote global security.

To urge such an expansion in mission is not to argue that health professionals in IPPNW should take on the complete spectrum of concerns about environment and development. To do so would clearly diffuse activities far too much and blunt the potential impact of any campaign or programme. There are a host of organisations concerned with specific aspects of environmental and developmental problems. For IPPNW and physicians in the national affiliates, only those issues that are global in impact and have implications for world or regional security should be given priority. This recommendation will undoubtedly stimulate debate about precisely which elements are the key. Such a debate is likely to be fruitful and could result in new insights.

In general, other organisations concerned with environment or development have not made the link with the four dimensions of global security described above, and those that have attracted health professionals do not have the international infrastructure that IPPNW has built up over the last decade. It would, of course, be possible to form another organisation parallel to IPPNW, but it would take many years to develop the network of contacts that IPPNW already has in place and would inevitably lead to competition between IPPNW and the new group. There is already an organisation, Physicians for Environmental Protection, based in Switzerland, which is developing an international

network. There is no reason why such an organisation could not co-exist with a refocused IPPNW, with the former group campaigning on the myriad of environmental issues that have implications for health but that may not necessarily have global effects, and IPPNW focusing specifically on those issues that directly affect global security. It is inevitable that some individual IPPNW affiliates will themselves decide to campaign on matters of predominantly local or national importance but local initiatives have not in the past prevented consensus forming about international priorities for action.

Would a medical movement with a broader focus lose its capacity to campaign on nuclear weapons issues? On the contrary, it would gain the capacity to recruit new members and could galvanize a number of relatively inactive affiliates into action. The components of global security are of wide interest and have a potential to bring in large numbers of health professionals who at present are uncommitted. Because the process of refocusing the organisation will breathe renewed life into it, there is also the possibility of reaching a wider audience with IPPNW's original concern of preventing nuclear war. Thus, rather than being perceived as weakening the activities on nuclear weapons, the proposed new approach could help to reemphasize their importance to those health professionals whose major preoccupations lie in other fields. It is also compatible with a recent call for IPPNW to promote "global health interdependence" [16].

One of the most important spin-offs is the potential for increasing the active involvement of affiliates in the south. Currently, many of these affiliates are situated in countries that do not have a nuclear capability. In many cases, opportunities to work on IPPNW issues have been limited. Broadening the conceptual basis of IPPNW to include other dimensions of global security will invite a much greater contribution from these countries, because their security is already so directly threatened by economic imbalances and environmental degradation.

THE UNITED KINGDOM EXPERIENCE

During 1989 and 1990, it became obvious that, despite the work of dedicated staff, the level of activity by the membership in the Medical Campaign Against Nuclear Weapons was declining

steadily and the organisation was losing members. (Subsequently, the Gulf crisis has caused an upsurge in activity but it is not yet clear whether this will result in a sustained increase in membership). This 2-year trend has stimulated a debate about the future of the organisation and prompted the circulation of a questionnaire. Of the membership of approximately 3,000, just under 200 returned the questionnaire, suggesting a considerable degree of apathy. Of these, the great majority (87%) indicated that they would prefer to see the campaign broadening its mandate beyond nuclear weapons and nuclear disarmament. The majority (59%) of respondents favoured addressing global environmental issues and a similar majority supported a change of name. Although there were some who initially doubted the wisdom of moving away from a single focus, concerns seem to have diminished in subsequent discussions. An extraordinary general meeting during 1991 will finalize these steps. The new mandate would make it possible, and even desirable, to collaborate with other organisations that approach the same problems from different professional standpoints, while at the same time emphasizing the specific perspective of health professionals. The new organisation will be relaunched under a new name in the context of a major membership drive.

CONCLUSIONS

The medical movement against nuclear war must adapt to new challenges. The concept of global security provides a thematic structure for the further development of the organisation. There will naturally be concern that the loss of a single focus for the organisation will weaken its impact. An alternative analysis, however, suggests that broadening the objectives does not mean abandoning the goal of preventing nuclear war and working towards a nuclear-free world; rather it would result in the participation of a greater number working towards this end as well as addressing the other global threats that confront humanity. Health professionals have an important role to play in helping to develop and promote the concept of global security, which will form the basis for preventing conflicts and enhancing the prospects of survival for many millions into the next century and beyond. ■

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