

# HEALTH, FOREIGN POLICY & SECURITY

A DISCUSSION PAPER

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ISBN 1-902089-87-1

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Published by the Nuffield Trust and Nuffield Health and Social Services Fund  
UK Global Health Programme  
59 New Cavendish Street  
London WIG 7LP

Tel+44 (0)20 7631 8450  
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The Nuffield Trust Charity Number: 209201  
The Nuffield Health and Social Services Fund Charity Number: 209169

Designed by Nicholas Moll Design  
Telephone: 020 8879 4080

Printed by the Ludo Press Ltd  
020 8879 1881

## **Foreword**

This discussion paper represents an important contribution to the development of the UK Global Health Programme, an initiative of the Nuffield Trust and Nuffield Health and Social Services Fund. This programme, which has developed out of the Nuffield Trust's work on the implications of globalisation for the health of the people of the United Kingdom, extends our interest to the fields of foreign and security policy.

In recent times, health issues have become increasingly important to foreign and security policy, and developments in these fields have many implications for health both in the United Kingdom and globally. Indeed, it has been a central theme of the Nuffield Trust's work that globalisation is leading to a blurring of distinctions between domestic and foreign and that the way we think and act in relation to health policy must adapt accordingly. Furthermore, the links between foreign and security policy and the broader development agenda are increasingly being recognised, leading further impetus to the effort to understand the place of health in the policy agenda and ensure that health concerns receive due consideration.

This paper provides an overview of the intellectual landscape around issues of health, foreign and security policy. It represents an essential grounding for future work on the programme by discussing current work in the field, and identifying potential areas and questions for future research.

The UK Global Health Programme will over the next three years explore further the connections between health, foreign and security policy in the light of globalisation and the shifting international debate. The Programme aims to improve understanding of these connections, develop the evidence base and share its findings in cross-sectoral dialogues with a range of stakeholders, including policy makers, researchers, health workers, NGOs and the wider public in the UK and other countries. The Programme will also produce a Pathfinder document that identifies key policy issues and suggests policy options.

John Wyn Owen CB  
Director  
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July 2003

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## List of Abbreviations and Acronyms

AFOR	Albania Force
AMR	antimicrobial resistance
ARV	anti-retroviral
BSE	bovine spongiform encephalopathy
BW	biological weapons
CDC	Centers for Disease Control and Prevention
CIA	Central Intelligence Agency (US)
CMH	WHO Commission on Macroeconomics and Health
CSW	commercial sex work
DFID	Department for International Development (UK)
DOD	Department of Defense (US)
DOH	Department of Health (UK)
DTI	Department of Trade and Industry (UK)
DU	Depleted uranium
ECOMOG	Economic Community of West African States Monitoring Group
ERIDs	emerging and re-emerging infectious diseases
ESAP	economic structural adjustment programme
FCO	Foreign and Commonwealth Office (UK)
GBD	Global Burden of Disease
GDP	gross domestic product
GNP	gross national product
HCDC	House of Commons Defence Committee
HIV/AIDS	human immunodeficiency syndrome/acquired immunodeficiency syndrome
IHR	International Health Regulations
IISS	International Institute of Strategic Studies
IMF	International Monetary Fund
IPPNW	International Physicians for the Prevention of Nuclear War
IR	International Relations
KFOR	Kosovo Force
MDG	Millennium Development Goals
Medact	Medical Action for Global Security
MOD	Ministry of Defence (UK)
MTA	multilateral trade agreement
NATO	North Atlantic Treaty Organisation
NCD	non-communicable disease
NGO	nongovernmental organisation
NIC	National Intelligence Council (US)
PAHO	Pan American Health Organisation
PTSD	Post Traumatic Stress Disorder
SAP	structural adjustment programme
STD	sexually transmitted disease
TB	tuberculosis
TTC	transnational tobacco company
UN	United Nations
USAID	United States Agency for International Development
vCJD	variant Creutzfeldt Jakob disease
WHO	World Health Organisation
WMD	weapons of mass destruction

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## 1.0 Introduction

There is growing attention to the links between health, foreign policy and security. In part, the need to understand the links among these different policy communities arises from recognition within public health of the broader determinants of health. Factors such as socio-cultural environment, and political and economic structures, are now readily acknowledged, alongside biology, individual behaviour and health systems, as important influences on health status and outcomes. Furthermore, many of these determinants are increasingly transborder in nature, in that their origins, reach and consequences transcend territorial boundaries, notably the borders of sovereign states. This has led to widespread interest among health researchers, policy makers and practitioners in the emerging field of global health.

Alongside this paradigm shift within the health field has been a desire by the foreign policy and security policy communities to understand better a wider range of factors that impinge on their respective domains. Traditionally defined, *foreign policy* concerns the realm where the external environment impacts on domestic policy, requiring mediation between the two milieus. Thus, factors such as the resource base of the state, its position geographically in relation to others, the nature and level of economic development, demographic structure, ideology and fundamental values form the domestic or internal milieu (Evans and Newnham 1992). Nonetheless, there are many factors external to the state which impact on the realisation of these policy decisions which are ostensibly addressed through a specific branch of government (e.g. UK Foreign and Commonwealth Office). Indeed, following the end of the Cold War and amid processes of globalisation, it is argued that there is a proliferation of external factors that play a growing role in shaping domestic policy making. Foreign policy makers must therefore broaden their horizons when seeking to further national interests. New tools of foreign policy have been debated as part of this new milieu including such ideas as health as a form of "soft power" (Nye 2002) and even health as a "bridge for peace" (Vass 2001).

Such thinking moves foreign policy into the realm of security policy which, while overlapping with foreign policy in its aims to protect and enhance national interests, can also be seen as a distinct policy community given its historical emphasis on matters of war and peace. The traditional definition of security, and notably national security, is focused on protecting vital national interests (sometimes referred to as "high politics") ultimately through the use of military power. While the territorial integrity of a sovereign state is broadly recognised as foremost to national security, the concept has remained a highly contested one, with varying perspectives on what constitutes a vital national interest, and how its protection should be achieved (Baylis 1997:194). Over the past decade, there have been many efforts to redefine the concept of "security" (Buzan, 1991). Key to this has been a widening of the agenda to include more diverse risks than simply military threats. These risks include environmental, economic and other dangers traditionally seen as 'soft security'. In addition to a widening agenda of risks, the narrow focus on the state was broadened, ranging from individual to the global. During the 1990s, this expanded agenda became not only academic orthodoxy but began to impinge on the policy agenda and on the traditionally state-centric view of the policy community. It also opened up space whereby health could be seen as a legitimate security issue.

In the context of these varied initiatives, this paper reviews the growing debate on the links between health, foreign policy and security. The main purpose of this paper is

- To discuss the changing conceptualisation of health policy, foreign policy and security policy in terms of closer linkages among them;
- To describe the main points of contact which bring these policy communities together;

- To analyse how each of these contact points are currently defined in conceptual, empirical and policy terms; and
- To identify gaps in the current literature that may be addressed by further research and policy initiatives.

Overall, the paper argues that there are indeed many opportunities where health, foreign policy and security policy can achieve greater coherence for the benefit of all three communities. However, the points of contact so far have been narrowly conceived, focused on selected issues and dominated by particular perspectives that hinder more effective policy. There is a clear need for a more strategic approach to policy development, informed by empirical evidence of the mutual risks and opportunities to be potentially realised.

## 2.0 Conceptual framework for linking between health, foreign policy and security

*If it creates instability, chaos, conflict and war, that has national security implications.*

Samuel R. Berger, National Security Adviser, Clinton Administration (2000)

The end of the Cold War, and the events of 11 September 2001, have led to intense reflection on the conceptualisation and practice of foreign policy and security policy, including their juxtaposition with issue areas deemed within the realm of "low politics". This has led to a theoretically rich literature which seeks to capture the highly complex policy environment that has emerged since the 1990s. The common thread across these perspectives is the perceived need to understand foreign policy in a way that integrates a wider range of issue areas, redefining the traditional distinction between high and low politics into a more sophisticated agenda that reflects the complexity of emerging realities. Indeed, the end of the Cold War, it is argued, has changed the foreign policy landscape to such an extent that a new ordering of priorities is needed. Many have referred to this post-Cold War context as a "window of opportunity" to reallocate the "peace dividend" for social and economic development purposes, others have observed a "new world disorder" in which new threats to security have emerged to supersede familiar bipolar interstate rivalries. Considerable debate remains among different schools of thought over what are considered appropriate subjects for security policy to address, and their relative importance in relation to each other and traditional concerns (Stares 2002).

There is no consensus in the academic world over the nature of international relations, over the constitution of international society (in particular, over the relative importance of states vis a vis other actors), or over the meaning and practice of security (for example, Waltz, 1979; Keohane and Nye, 1989; Cox 1987; Wendt, 1999). Nor is there consensus over the epistemological foundations of the discipline, the last decade in particular having seen a major debate over positivist and post-positivist approaches (Smith, Booth and Zalewski, 1996). These debates had a limited impact on the policy community, though their implications are profound. For the purposes of this paper however we employ a four-fold typology proposed by David Fidler (2001) as being particularly useful for understanding some of the relations between health, foreign policy and security. The first approach identified by Fidler, **Realpolitik**, derives from realist theory which assumes that international relations is anarchic and dominated by the competitive, and often conflictual, pursuit of national interests by states. Security policy is focused at the national level through the achievement of an appropriate balance of power among major states. The bipolar balance between NATO and the Warsaw Pact during the Cold War is a classic example of realist power politics, with rivalry focused on military and economic capabilities. A substantial literature has emerged from these basic premises (Waltz 1979; Smith 1986).



**Table 1: Selected definitions of the new security agenda**

<b>Concept</b>	<b>Definition</b>	<b>Theoretical source</b>	<b>Focus of security policy</b>
Realpolitik	Security derived from balance of power among states within an anarchic system	Realism	National security
Common security	Security derived from cooperative efforts by states to maintain peace and security collectively	Liberalism	International security
Human security	Security derived from ensuring the provision of basic needs for individuals	Critical theory Social constructivism	Global security
Ecological security	Security derived from protection against threats to natural environment and biological systems	Ecology Evolutionary theory	Environmental and epidemiological security

Sources: This table is in part based on Fidler (2002).

The end of the Cold War has led to a rethinking of some aspects of realist theory, yet a retention of the fundamental assumptions described above. In relation to this paper, selected health issues have been acknowledged as relevant to the foreign and security policy communities, namely those that pose a threat to national military or economic interests. Thus, realists have been increasingly concerned with the potential risks from certain infectious diseases, including their impact on the armed forces, and biological weapons. It is in this context that the US National Intelligence Council (2000b; 2002) has analysed these issues as potential threats to national security. Importantly, the lens used to analyse these issues remains orthodox in its focus on power politics, national interests and the types of policy instruments needed to further them. As USAID (2001) recently reported, "Global health issues have global consequences that not only affect the people of developing countries but also directly affect the interests of American citizens" (USAID 2001).

The second category, **common security**, is based on liberal theory which holds that international relations among states are defined by cooperative efforts. Security is seen in collective terms whereby states work together, through international organisations led by the UN Security Council, to create and maintain a peaceful order. Moreover, postwar liberal internationalism supported the creation of functional bodies of the UN system, concerned with social and economic development, as part of the collective effort to prevent security threats from arising in future from poor countries. As the then US Secretary of State stated at the San Francisco Conference to create the UN in 1945,

The battle of peace has to be fought on two fronts. The first is the security front where victory spells freedom from fear. The second is the economic and social front where victory means freedom from want. Only victory on both fronts can assure the world of an enduring peace (as quoted in Goodrich 1974:202).

Similarly, the Truman Doctrine put forth in 1947 was premised on the belief that "One of the primary objectives of the foreign policy of the United States is the creation of conditions in which we and other nations will be able to work out a way of life free from coercion....I believe that our help should be primarily through economic and financial aid which is essential to economic stability and orderly political processes." Within this perspective, health development has been seen as part of wider efforts to prevent instability and insecurity from emerging within a context of want. Contemporary versions of this doctrine argue that "enlightened self-interest", whereby development aid to address the social and economic factors that contribute to insecurity, leads to benefits for the international community as a whole.

Third, **human security** is a perspective which has emerged in the wake of the end of the Cold War. Beginning with a more critical view of the existing international system, this approach moves the focus away from the state towards individual and community needs. While the above two approaches aim to ensure the integrity of the state, human security emphasises people-centred efforts to address basic needs such as food, housing, education and health. Here too, however, a proliferation of definitions has emerged from within the scholarly and policy communities (Table 2). Nonetheless, they share a focus on non-state actors and transnational social movements that build solidarity across state boundaries. Thus, it is argued that security must be achieved at the global level through people-centred and people-led transnational relations (Fidler 2002). Health policy fits comfortably within this approach as one of the basic needs to be achieved for human security (Ogarto and Sen, 2003).

Finally, the concept of **ecological security** extends the realm of policy concern further by arguing that the ultimate risk to the human species are threats to the natural environment. This approach encompasses the need to protect non-human species and natural resources as part of security policy. As Pirage (1995 as quoted in Fidler 2002) writes, there is a need to understand "a more wide-ranging 'planetary security dilemma'" that focuses not on "a competitive game between states but rather one that has its source in a cooperative game against nature". The links between health, foreign policy and security policy are concerned with how human health is intimately dependent on the integrity of the planet and its ecosystems. Policy issues to be addressed in this context include the role of the environment in the spread of emerging and re-emerging diseases, and the development of antimicrobial resistance.

From this brief review, we can see that scholarly and policy debates have flourished since the mid 1990s, resulting in a bumping together of a number of policy communities (public health, foreign policy, security policy) and academic disciplines (international relations, development studies). A good example is foreign policy and development which are largely seen as distinct domains, not least to avoid the perception of the moral imperative of development being dragged into the self-interested motivations of Realpolitik. In recent years, there have been attempts to move the two areas more closely together. There have been albeit brief UK policy discussions around "ethical foreign policy", and efforts to coordinate the work of the Department for International Development (DFID) with the Ministry of Defence (MOD) and FCO.

**Table 2: Selected definitions of human security**

Source	Definition	Threats to human security
Kofi Annan	"Economic development, social justice, environmental protection, democratisation, disarmament, and respect for human rights and rule of law"	Internal violence, nuclear weapons, weapons of mass destruction, repression, gross abuses of human rights, large scale displacement of populations, international terrorism, HIV/AIDS, drug and arms trafficking, environmental disasters
UNDP (1991)	Freedom from fear and want	7 categories including economic, political, environmental, food, health and personal
Human Security Network	Freedom from pervasive threats to safety and human rights	"non-traditional threats to people's security related to economic, food, health, and environmental factors as well as issues such as drugs, terrorism, organized crime, landmines and gender-based violence"
Government of Canada	Freedom from "pervasive threats to people's rights, their safety or their lives"  "safety for people from both violent and non-violent threats"	Small arms trafficking, income gap, internal conflict, state failure, weapons of mass destruction, transnational crime, religious and ethnic discord, environmental degradation, population growth, mass migration, repression, child abuse, drug trafficking, terrorism, economic underdevelopment, unstable trading system, anti-personnel landmines
Lincoln Chen (1995)	Human survival, well-being and freedom	Poverty, war, conflict and repression
Caroline Thomas	"a condition of existence in which basic material needs are met, and in which human dignity, including meaningful participation in the life of the community can be realized"	Material insufficiency, repression, lack of participation, insufficient representation (democracy)
Amartya Sen (2000)	The ability to lead a life without having one's survival threatened or dignity impaired	Public health risks, violent conflict, persecution, lack of political participation, economic instability
Gary King and Christopher Murray (2001)	"the number of years of future life spent outside a state of 'generalized poverty'"	Generalized poverty
George Maclean (1998)	security of the individual in his or her personal surroundings, community, and environment	Threats to personal security (violence or harm), lack of access to basic essentials of life, lack of protection from crime and terrorism, pandemic diseases, political corruption, forced migration, absence of human rights, violations based on gender, lack of political and cultural rights, underdevelopment, misuse and overuse of natural resources, threats to environmental sustainability, pollution

In the academic world, International Relations (IR) and Development Studies have been largely separate and discrete areas of inquiry. A number of scholars have attempted to bridge the two disciplines, mostly from the Development Studies side, arguing that development is an international security issue (Duffield 2001). Historically, the links between development and security have long been formally recognised, the scope for implementing these ideas through concerted aid efforts was severely constrained by Cold War politics. Flows of development assistance became highly polarised soon after the end of the Second World War, delineated between pro-NATO and pro-Warsaw Pact countries. The end of the Cold War beginning in the late 1980s brought a reassessment of these ideas. Duffield (2001:15-16) describes the contemporary "merging of development and security" whereby

The commitment to conflict resolution and the reconstruction of societies in such a way as to avoid future wars represents a marked radicalisation of the politics of development. Societies must be changed so that past problems do not arise, as happened with development in the past; moreover, this process of transformation cannot be left to chance but requires direct and concerted action.

This represents "a new security framework within which the modalities of underdevelopment have become dangerous....Development is ultimately impossible without stability and, at the same time, stability is not sustainable without development."

In addition, a number of IR scholars have begun to address human security needs, bringing them into the development field. Health development figures in some of these writings, but has rarely been addressed as a core issue in its own right. Rather there is a tendency to cast health as one example of many (along with migration, environment) of the "new security agenda" (Buzan, 1991; Buzan et al. 1998). This agenda achieved the status of orthodoxy during the 1990s, not least as the end of the Cold War threw up new security challenges which were not easily accommodated within the dominant realist paradigm. The new security agenda criticised realism for being overly statecentric in its approach and for concentrating too heavily on military security - sometimes to the exclusion of other factors. Instead it proposed a more holistic version of security which included an understanding of the different levels of security and a wider range of issues. In terms of levels, Buzan and others argued that security should not be located solely at the state level, but should include the global and the individual (human security); in terms of issues, in a key text Buzan et al. (1998) argued that there were five key sectors - military, environmental, economic, security and political. Health is not mentioned in this analysis. Crucially, they argue that security is not an objective phenomenon but is socially constructed. More importantly, issues do not exist as security issues outside the social realm, but are "securitised". In other words, an issue is not simply a security issue and its failure to be appreciated as such is by way of ignorance. Rather whether it is recognised or not is a political decision, conscious or unconscious. A more radical version of this is Critical Security Studies which suggests that the identification of issues as "security issues" reflects dominant power relations. As a result human security will always suffer because of the power of the state. The state operates not simply through policies, but through constructing what is seen as a legitimate security issue and responses to them. Only through emancipatory strategies can human security be achieved (Jones 1999).

### **Box 1: A change in the Constitution of International Institute of Security Studies**

In 1992 an Extraordinary Meeting of the International Institute of Security Studies (IISS), based in London, was held to redefine the organisation's Constitution. The original text reads:

The object for which the Institute is established is to promote on a non-party basis the study and discussion of and the exchange of information upon the influence of *modern and nuclear weapons and methods of warfare upon the problems of strategy, defence disarmament and international relations* (italics added).

The revised text introduced in 1992 reads:

The objective for which the Institute is established is to promote on a non-party basis the study and discussion of and the exchange of information upon any major security issues including without limitation those of a *political, strategic, economic, social or ecological nature* (italics added).

It is in the above context that health has increasingly come into discussions about the "reproblematization of security" (Duffield 2001:16). As suggested above, the linking of health development and security is far from new. The creation of the WHO in 1948 was premised on the postwar liberal internationalism that led to the creation of the UN system as a whole "to promote social progress and better standards of life" (UN Charter 1945). However, recent efforts by a range of organizations to link health, security and foreign policy more directly have been distinct in their concerted attempts to locate health more centrally within these policy communities, and to provide the empirical evidence to support this. While the perspectives of these organizations can be seen to reflect elements of the three broad approaches outlined above, it is acknowledged that there are overlaps among them as thinking continues to emerge.

A good example is RAND's recent creation of a **Center for Domestic and International Health Security** to develop an agenda for taking forward health security issues, drawing on the think tank's capacities in health, security, intelligence, computer modelling and economics. The aim of the Center is "to make health a key component of U.S. foreign policy and also to protect the health of the American homeland by preparing it for possible future terrorist attacks" (Shine 2002a). Its starting point is that health development must go beyond ethical or moral arguments:

[Promoting health abroad is not just a matter of 'doing good' or of advancing moral purposes about the future of humanity. Rather, promoting health abroad is also a critical aspect of foreign policy and, indeed, of national security - both for now and for the future (Hunter et al. 2002).

However, the paper goes on to argue that "To shape a world congenial to the United States, the American people must put behind them any antiquated illusions of retreating from world affairs and become truly internationalist....Isolation and insulation are gone forever."

It is notable that, in the above paper, the core historical tension in US foreign policy comes to the fore - isolationism (unilateralism or realism) versus internationalism (interventionism or idealism) (Takeyh and Gvosdev 2002). RAND hovers uncomfortably between the two, urging

US foreign policy makers to see health in terms of national self-interest, yet advising the government to turn away from isolationism especially after the events of 11 September 2001. Yet there is an inherent contradiction in this position. If national self-interest is the starting point, and the protection and promotion of international health hinges on this criteria, it follows that the US government will seek to engage with international cooperation only where it deems that its interests are served (Fidler 2002). This Realpolitik approach leads to a search for strategically important countries to support and align with. The report by the National Intelligence Council (2002) on the "next wave of HIV/AIDS" in Nigeria, Ethiopia, Russia, India and China is a good example. The five countries are deemed "of strategic importance to the US that have large populations at risk for HIV infection".

Another recent, and described as a "highly ambitious interdisciplinary research initiative", is the **Program on Human Security** at Harvard University. The programme brings together scholars from IR, statistical methodology and public health "to re-define human security and to provide more reliable methods for measuring it." Political scientists in the programme are responsible for studying the outbreak of war, explaining its causes and predicting where and when it will occur. Statisticians provide tools for measuring these variables, and public health brings an understanding of the human costs of military conflict.

A further such initiative is the **Foreign Policy Centre** whose research themes research are aimed at "revitalising debate about foreign policy." The themes are New Rules for Foreign Policy, Risk and Security Programme, The New Global Economy, Reforming International Cooperation, The Future of Diplomacy, and Identity, some of which have relevance to the subject of this paper. For example, the Risk and Security Programme considers the changing nature of individual and collective risk, and seeks to clarify the boundaries of responsibility for addressing them. New Rules for Foreign Policy considers the role of foreign policy in a world where borders are becoming less important and many of the challenges flow across them. At present, the Centre does not specifically study the links between health, foreign policy and security, but has hosted occasional seminars on this subject.

It is also important to note in this context two established organisations, the **International Physicians for the Prevention of Nuclear War (IPPNW)** and its UK affiliate Medact. The IPPNW was founded in 1980 by a group of American and Soviet doctors concerned about the rising tensions between the two superpowers. With a shared commitment to prevent nuclear war, a research team was organised to study the health effects of the atomic bombs dropped on Hiroshima and Nagasaki. Their message, that "nuclear war would be the final epidemic", formed the basis of worldwide campaigning. Today, the organisation has affiliates in 13 countries (Australia, Canada, Denmark, France, Germany, Guatemala, India, Japan, Malaysia, Netherlands, Norway, Philippines and the US) which campaign to publicise the probable impact of nuclear and conventional warfare on human health. Its UK affiliate, **Medact** (Medical Action for Global Security), is a charitable organisation of doctors, nurses and other health professionals who are concerned about major threats to health such as violent conflict, poverty and environmental degradation.

In summary, there are current efforts from several sides to bring the conceptualisation of health, foreign policy and security more closely together. This has contributed to a growing and substantial literature. While conceptual thinking about these linkages remains diverse in nature, and in many respects fiercely contested in terms of causal explanations, normative assumptions and prescriptive actions, they share a common desire to challenge traditional schools of thought and spheres of policy action. Changes in the policy environment, led by the end of the Cold War

and processes of globalisation, have led to widespread recognition of the need to rethink familiar parameters that maintain health, foreign policy and security as distinct fields of endeavour.

### **3.0 Issues in health, foreign policy and security**

Historically, literature on health and security has been scarce. Despite substantial growth in the study of strategy and security since 1945, the focus of most of this was on the use of military force and the Cold War (especially the problem of nuclear weapons). Although this focus broadened in the 1990s with the end of the Cold War, and the conceptual shift away from "strategic studies" towards "security studies", it is only in the past few years that a body of literature on health and security has emerged. However this literature is not yet 'fully formed'; there is no consensus as to what is and is not a public health security issue, the key debates have not yet emerged and fault lines between various camps are not always readily distinguished. In other words, the debate over health security is still at an early stage. What we attempt to do below is to identify some of the key issue areas and fault lines in this emergent debate.

The review below identifies a number of key themes and issues which are still emerging in this literature. Given the weakness so far of the theoretical and conceptual underpinnings of this emerging field, the methodology for this paper has been driven by the existing literature, rather than the adoption of a particular perspective or existing framework on how health and security should be studied. In so doing we implicitly accept that there are a number of competing approaches to the study of health and security. The key difference appears to be ontological and specifically whether the object of security is the individual, the state, transnational actors or humanity in general. It should also be noted that the overwhelming majority of the literature is either concerned with security problems in the developing world, or for the West in general and the US in particular. Although there are policy initiatives within Europe (and especially the EU), the academic literature does not tend to treat Europe separately from the West. It is with this starting point that the following key topics have been identified as defining the current literature available.

#### **3.1 International trade as a health and foreign policy issue**

The health and foreign policy communities are perhaps most directly linked through international trade. From the perspective of public health, trade liberalisation can create both risks and opportunities. Benefits include the potential to positively affect some of the broader determinants of health, such as diet, socio-economic status and educational levels, through better access to goods and services, and employment. The North American Free Trade Agreement (NAFTA), for example, has created employment opportunities for some Mexican citizens along the US-Mexican border, as well as improving access to certain foods (year round availability, lower cost) because of enhanced trade. The potential costs to public health stem from the risks that arise from increased mobility of people, goods and services across borders. The US government, for example, is increasingly concerned about the possible spread of TB by Mexican migrants, both documented and undocumented, following the NAFTA agreement (Coker and Lambregts van Weezenbeek 2001). The incidence of foodborne diseases arising from the greater trade in food (e.g. raspberries) has also received attention (Kimball 2001). While the challenge of balancing the interests of trade with the protection of public health has been an ongoing one since the fourteenth century (Fidler 2001), the extension of regional and global trade agreements in recent decades makes closer collaboration a clear imperative.

Given the traditional role of foreign policy to promote the national economic interests of a country abroad, this link has largely been in the form of efforts to facilitate trade of health-related goods and services. The pharmaceutical industry has been of major importance in this respect. In the UK, for example, it is estimated that the net value of the industry to the UK is £1-2 billion (US\$1.5-3 billion), with these benefits derived through close relationships with the Department of Health, Department of Trade and Industry (DTI) and FCO (Pharmaceutical Industry Competitiveness Task Force 2000). Manufacturers of health-related equipment, supplies and biologicals, and increasingly service providers and financiers are also promoted in this way.

There is a need to develop a fuller understanding of the foreign policy implications of international trade in health-related goods and services beyond the promotion of exports abroad. In some situations, such activities can have adverse impacts on health and foreign policy that may not be fully appreciated. One example is the promotion through foreign policy circles of the tobacco industry. Given the decline in smoking prevalence in high-income countries, tobacco transnational tobacco companies have successfully expanded their markets in low- and middle-income countries since the late 1980s. In many cases, this shift in strategy has been directly supported by foreign policy efforts, despite the adoption of stronger tobacco control legislation domestically. During the 1990s, for example, the US Trade Representative effectively pressured the governments of Taiwan, South Korea and Thailand to open their markets to foreign cigarette imports. In the UK, recognition of the potential harm to British foreign policy interests of pursuing such contradictory actions, and following publication of *Smoking Kills, A White Paper on Tobacco* in 1998, the government issued guidelines to overseas posts not to engage directly in the promotion of the tobacco industry (Box 2).

**Box 2: Guidelines issued by the UK government to overseas posts on the promotion of tobacco(1999)**

"We are not in the business of banning the production or export of tobacco products, and the DTI and our embassies will continue to provide advice, to which UK companies are entitled, in the sale of legal products. However, in keeping with the current practice of Ministers and officials not becoming involved in the advertising or promotion of tobacco products at home, guidelines will shortly be issued to our diplomatic posts instructing them to be scrupulous to ensure that they follow suit overseas, taking into account local circumstances."

*Guidelines:*

2. Posts must no longer directly promote products containing tobacco, whether through advertising or through publicly associating HMG with their sale, especially where this might be misconstrued as some form of government endorsement or approval of them. However, given the general, non-discriminatory basis of British Trade International services and other UK government support for business—which, as a matter of principle, are available to all British companies, provided their products are mainly of UK origin and are legal—Posts should nonetheless, if approached, offer support and advice to assist UK tobacco companies through the provision of trade, investment and political information. While it may be true that such companies rarely, in any case, seek HMG assistance in their exporting effort, it will be important that Posts scrupulously adhere to these new guidelines, after taking into account local circumstances. Posts should bear in mind that the international tobacco control lobby



is increasingly well organised, and pressure groups may seek to highlight any apparently controversial involvement in any event sponsored by a tobacco company.

3. It follows from the above that Posts should not *inter alia* be associated in any way with the promotion of the tobacco industry, for example by accepting advertisements for UK or local tobacco products in publications issued by the Post, or sponsorship from tobacco companies for their activities, including Chevening Scholarships. Nor should they attend or otherwise support receptions or high profile events—especially those where a tobacco company is the sole or main sponsor—which are overtly to promote tobacco products, such as the official opening of a UK tobacco factory overseas; events where tobacco sponsorship is more low-key (for example, among several sponsors of a visiting orchestra) can be attended. Posts may also continue to offer assistance to UK tobacco companies in other ways, such as in resolving business problems—customs or port clearance, smuggling, trademark violations etc—that are potentially discriminatory. They may also provide information and assistance on foreign country policies and investment opportunities including advice to help them comply with foreign government laws or regulations.

4. In short, unless otherwise specified above, Posts should not support activities designed specifically to encourage smoking. Posts have the delegated authority to decide for themselves whether any proposed action on their part is in keeping with these new regulations, but may refer to London for decision—to the FCO geographical department (if there are political implications) or JEPD—where this is felt necessary.

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5. The White Paper also stressed the Government's wish to encourage and support the efforts of other countries to strengthen their own tobacco control strategies. Requests for help, particularly with expertise, should be passed to the Department of Health (Health Promotion Division).

6. These guidelines will take effect from 1 June 1999."

Another important example of the need for consultation between the health and foreign policy communities on trade matters is the status of pharmaceuticals under the Agreement on Trade-Related Intellectual Property Rights (TRIPS).<sup>1</sup> By 2005 low and middle-income countries are scheduled to adopt patent protection regimes in line with the agreement with the aim of standardizing intellectual property law protection across all WTO member states. The pharmaceutical industries in Thailand and India are particular targets of the agreement. India, for example, is the second largest pharmaceutical market in the world by volume but, because of low prices earned for generics and weak patent enforcement resulting in the pirating of new drugs, is thirteenth in value. India is estimated to have about 20 000 companies manufacturing medicines developed elsewhere. The company Ranbaxy has production facilities in India and abroad, joint ventures in the US, China and Australia, and sales in thirty countries. Similarly, the Bombay-

<sup>1</sup> This section is based on Lee K. (in press), *Globalization and Health: An Introduction* (London: Palgrave Macmillan).

based company Ipca exports to more than sixty countries including Russia, North America and parts of Europe (Pilling 1999b).

As well as national compliance to TRIPS by 2005, there have been controversial attempts to enforce its provisions in selected countries in what Michael Bailey, Senior Policy Adviser to Oxfam calls 'systematic intimidation' (as quoted in Boseley 2001). A highly publicized example is the legal challenge brought by the pharmaceutical industry in 1997 on the parallel importing of generic drugs for HIV/AIDS by South Africa (Box 3). While the case was dropped in 2001, it is now seen by many as a public relations disaster for the industry and governments involved in supporting the case. There has been much effort by the industry and foreign policy community to retrieve the situation through improved corporate social responsibility policies including cutting the price of selected drugs (Clark 2001b; Fine 2001). Better consultation between the foreign policy and health communities, most notably awareness of the public health consequences of promoting multilateral trade agreements, may have avoided the negative impacts of this case.

**Box 3: The legal challenge to South Africa by the pharmaceutical industry under TRIPS**

In 1997, 39 domestic and foreign pharmaceutical companies (including GlaxoSmithKline, Roche and Bristol-Myers Squibb) mounted a legal challenge to an amendment to the South African Medicines and Related Substances Control Amendment Act that would allow the import and use of cheaper generic versions of prescription medicines. The key clause, 15(c), states that South Africa can find and 'parallel import' the cheapest world price for a drug and impose 'compulsory drugs licensing' that grants rights to other companies to make copies of patented drugs. The main impetus for this amendment was the HIV/AIDS epidemic that had so far infected at least 16% of the country's population. It is estimated that AIDS kills 5000 people a week. In 1999 the Minister of Health argued that budget constraints under the structural adjustment programme (SAP) prevented her from offering universal treatment to HIV-positive pregnant women that would save an estimated 30 000 lives at a cost of US\$13 million. For example, Zidovudine (AZT), developed by the US National Institutes of Health (NIH) and produced under license by GSK, costs US\$240 per month in South Africa compared to an Indian-made generic at US\$48 per month. (Bond 1999).

The case generated much negative publicity for the pharmaceutical companies and governments supporting the case. Civil society organizations within South Africa, as well as internationally, quickly mobilized to argue that the companies were trying to prevent the government from saving lives during a public health emergency. In April 2001, after much negative publicity, the pharmaceutical companies withdrew their legal action (McGreal 2001). This case, along with the controversy over access to Cipro during the anthrax attacks in the US, led to the Doha Declaration in November 2001 which affirmed that the TRIPS agreement should be interpreted and implemented so as to protect public health and promote access to medicines for all (Currea 2009).

While the controversy around TRIPS has been tempered somewhat by the Doha Declaration of 2001, other potential tensions loom in current negotiations on a General Agreement on Trade in Services (GATS). The South African case demonstrated the increased role of civil society organizations in influencing public debate, and the need to take into account a wider range of stakeholders and issues (e.g. access to health care). More broadly, it showed that certain health

issues can be mishandled if there is insufficient attention given foreign policy makers to the protection and promotion of health. In this case, public sympathy was quickly mobilized behind the South African government in its struggle to improve access to life-saving ARVs. In contrast, the pharmaceutical industry and the governments supporting it appeared to place the protection of profits under the TRIPS agreement before human welfare. While the merits of each side's argument remains under much dispute, the key point here is that the failure by the foreign policy community to understand the sensitivities around HIV/AIDS led to an arguably ill-conceived position by the UK government that eventually had to be retrieved.

In summary, the traditional promotion of national economic interests through foreign policy will require increased future consideration of how such policies might impact on global health. The ascendance of health issues on the agendas of high-level meetings, such as G8 Summits, and creation of new initiatives such as the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria has given health greater public visibility. Also, if health might be used more effectively as a foreign policy tool, such overtures would need to be perceived by others as acts of altruism rather than economic self-interest. The limited nature of institutional interaction among government departments concerned with trade, foreign policy and health would also need to be addressed.

### **3.2 The foreign policy and security implications of infectious disease**

*AIDS is a national security problem. It's an economic problem. It is a devastating problem, especially in [sub-Saharan] Africa.*

US Secretary of State Colin Powell (4 February 2001)

Infectious diseases, and most notably emerging and re-emerging infectious diseases (ERIDs), have received growing attention by the foreign policy and security policy communities in recent years. It is widely held that, as the threat of conflict between the two superpowers has declined with the end of the Cold War, other security risks have emerged that require new analyses and policy responses. ERIDs are frequently cited among these new risks because of their capacity to cross national borders, threaten the well-being of domestic populations, and undermine the economic and military capabilities of countries. The perception that ERIDs are a potential threat to national interests, and indeed a growing threat amid globalisation, has led to the inclusion of selected infectious diseases on the so-called "new security agenda" (Box 4).

One notable study is the US National Intelligence Council (2000) report on the potential global infectious disease threat to the US. The report follows a directive by President Clinton in 1996 calling for a more focused US policy on infectious diseases. The Department of State's Strategic Plan for International Affairs then listed the protection of human health and reduction of the spread of infectious diseases as strategic goals. The report states,

The persistent infectious disease burden is likely to aggravate and, in extreme cases, may even provoke social fragmentation, economic decay, and political polarization in the hardest hit countries in the developing and former communist worlds... [it] will add to political instability and slow democratic development in Sub-Saharan Africa, parts of Asia, and the former Soviet Union, while also increasing political tensions in and among some developed countries. As part of these efforts, the NIC examined 'the most lethal diseases globally and by region; develops alternative scenarios about their future course [see Section 4.0 below], and assesses their national and global social, political, economic, political, and security impact.'

Another recent study, funded by the European Commission, is an evaluation of the arrangements for managing epidemiological emergencies involving more than one EU member state. In the context of growing integration of member states, including the freer movement of people across European borders, the EC was concerned with the context in which epidemiological emergencies are managed. Five case studies were carried out: Meningococcal infection, Salmonella food poisoning, Shigella food poisoning, Legionnaires' disease, and influenza H5N1. The findings of the study include the need for consistent and high-level national surveillance systems, development of a consensus on a common set of "minimum standards" for national surveillance, use of existing networks to detect international outbreaks, better linking of information gathered by networks, harmonisation of laboratory techniques, and close collaboration between the EU and WHO (Institute of Health 2000).

**Box 4: Policy responses concerning health security and infectious diseases**

*June 1996*

US President Clinton issues Presidential Decision Directive calling for a more focused US policy on infectious diseases

*January 2000*

UN Security Council session devoted to threat to Africa from HIV/AIDS

*July 2000*

US Export-Import Bank makes available US\$1 billion in loans to African countries to purchase HIV/AIDS medications and infrastructure

*July 2000*

UN Security Council passes Resolution 1308 on the need to combat the spread of HIV/AIDS during peacekeeping operations

*June 2001*

Global Access to HIV/AIDS Prevention, Awareness, Education and Treatment Act is passed by the US House International Relations Committee authorising large increases for international programmes

*2001*

Shift in focus of US Office of National AIDS Policy from domestic to international focus

*25-27 June 2001*

United Nations Special Session on HIV/AIDS is held and declares disease as security issue

*21 May 2001*

WHA Resolution 54.14 is adopted on "Global health security: epidemic alert and response" by the WHO focused on revision of the IHRs, addressing emerging and re-emerging diseases, controlling anti-microbial resistance, and improving global surveillance and response to epidemics

*January 2002*

Creation of Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria

HIV/AIDS has received particular attention in this context. By the mid to late 1990s, amid evidence of the failure to stem the spread of the disease, HIV/AIDS began to attract the keen attention of the security policy community. More recently, US Secretary of State Colin Powell stated the Bush Administration's concerns that HIV/AIDS infection "now represents so great a threat to stability in Africa, Asia and Latin America that it needs to be regarded as a national security issue" (as quoted in Gow 2002: 57). Similarly, Richard Holbrooke, former US ambassador to the UN and Director of the Global Business Council on HIV/AIDS described the disease as "a direct threat to social, political and economic stability" (Lobe 2001:1). In summary, The perceived threats from HIV/AIDS to US national security are identified as follows (US NIC 2002; Gow 2002):

- (a) risk of infection by American citizens travelling to high prevalence countries especially through engagement in risky behaviours;
- (b) risk of infection to American citizens from travellers to the US given intensified population mobility worldwide both legally and illegally;
- (c) increased political and economic instability in strategically important countries because of failures by their government to control the pandemic;
- (d) potentially weakened capacity of armed forces in strategically important countries; and
- (e) risk of infection to US military personnel abroad.

While HIV/AIDS has received particular attention, because of its high prevalence among productive adult populations and seemingly inexorable spread, other acute infectious diseases of potential epidemic proportions has received attention. At the 54<sup>th</sup> World Health Assembly in May 2001, WHO urged member states to participate actively in improving epidemic alert and response measures to ensure "global health security." Such measures include revision of the International Health Regulations (IHR), development of a global strategy for containment and prevention of antimicrobial resistance (AMR), and collaboration on epidemic alert and response.

In recent years, a number of countries have sought to strengthen disease surveillance and monitoring systems at the national and regional levels. For example, in 2000 the European Community published an evaluation of arrangements for managing epidemiological emergencies involving more than one EU member state (Institute of Public Health 2000). In the UK, the Department of Health commissioned an internal study of the public health implications of increased population mobility including infectious disease control.<sup>2</sup> Similar issues were raised in a study funded by The Nuffield Trust to review UK public health measures concerning population mobility and tobacco control in the context of growing transborder health risks (Collin and Lee 2002). Countries such as Japan, Australia and the US have reviewed their policies on border health in light of growing concerns of the increased perceived risk from certain infectious diseases. In many cases, recommended policy responses have been focused on efforts to moderate perceived risks through control of population flows across borders or increased at the border screening.

Responding rationally to actual versus perceived risk from infectious diseases is highlighted by Coker and Lambregts van Weezenbeek (2001) who critiqued a proposed policy by the Institute of Medicine, and sponsored by the Centers for Disease Control and Prevention (CDC), for the US to introduce mandatory screening for tuberculosis (TB) of immigrants from high-prevalence countries (IOM 2000). The policy also argues for provision of a permanent residence card (green card) to be linked to the completion of an approved course of preventive treatment. The

<sup>2</sup> The report remains unpublished by the Department of Health.

authors examine the evidence given for this policy recommendation, questioning the methodology behind the risk analysis, estimates of the effectiveness of the policy proposal, the cost-effectiveness calculations, and the operational consequences put forth. The consequences of introducing mandatory screening are twofold. First, the policy has questionable public health benefits in controlling the spread of TB in the US and, indeed, may negatively affect disease prevention and control efforts by stigmatising a particular population group and linking it to immigration status. As well as exaggerating "the public-health threat posed by legal immigrants", the proposed policy is discriminatory by excluding other groups such as migration to and from Mexico, the 24.8 million non-immigrant legal admissions and, perhaps most problematically, undocumented migrants. These flaws in the policy are extensively discussed by the authors. Second, the introduction of an ineffective and discriminatory policy has potential implications for US foreign policy. While not discussed directly by Coker and Lambregts van Weezenbeek, their discussion of such an "erroneously focused" policy alludes to its relevance for public health policies adopted by other countries, as well as policies on migration in general. Furthermore, the adoption of such a policy could reflect adversely on a country that has historically benefited from inward migration.

**Table 3: Top twenty risk factors to global health**

<b>Risk Factor</b>	<b>Annual mortality</b>	<b>Global burden of disease (%)</b>	<b>Annual DALYs</b>
Underweight	3 700 000	<b>9.5</b>	138 000 000
Unsafe sex	2 900 000 (5.2%)	<b>6.3</b>	91900 000
High blood pressure	7 100 000 (13%)	<b>4.4</b>	64 300 000
Tobacco consumption	4 900 000 (8.8%)	4.1	59 100 000
Alcohol consumption	1 800 000 (3.2%)	<b>4.0</b>	58 300 000
Unsafe water, sanitation and hygiene	1 700 000 (3.1%)	<b>3.8</b>	54 200 000 (3.7%)
Iron deficiency	800 000(1.5%)	<b>2.4</b>	35 000 000
Indoor smoke from solid fuels	-	<b>2.7</b>	-
High cholesterol	4 400 000 (7.9%)	<b>2.7</b>	40 400 000
Obesity	-	<b>2.2</b>	-
Zinc deficiency	800 000(1.4%)	<b>2.9</b>	28 000 000
Low fruit and vegetable intake	2 700 000 (4.9%)	<b>1.8</b>	26 700 000
Vitamin A deficiency	800 000(1.4%)	<b>1.8</b>	-
Physical inactivity	1 900 000	<b>1.3</b>	19 000 000
Occupational injuries	310 000	0.9	13 100 000
Lead exposure	234 000 (0.4%)	0.9	12 900 000
Illicit drugs	200 000 (0.4%)	<b>0.8</b>	11200 000
Unsafe health care injections	500 000 (0.9%)	<b>0.7</b>	10 500 000
Lack of contraception	149 000 (0.3%)	<b>0.5</b>	8 800 000
Childhood sexual abuse	79 000(0.1%)	<b>0.5</b>	8 200 000

Source: Compiled from WHO (2002), *World Health Report 2002, Reducing Risks, Promoting Healthy Life* (Geneva: World Health Organization).

This brief review of the increased attention to infectious disease since the 1990s, some of which has been framed within the concept of "new security risks", finds a disproportionate focus on selected infections that have the potential to move from the developing to industrialised world. Some parts of the public health community have not been reticent to draw attention to ERIDs as a means of pushing health higher on the agendas of high-level policy forums such as G7 Summits and World Economic Forum. The result has been increased concern, not for shifting patterns of health and disease of world populations as a whole (see Table 3), but to selected diseases that cannot be contained within territorial boundaries. This has led to an overemphasis on "at the border" measures that seek to control the transmission of infectious agents by mobile populations, goods and services.

This particular perspective on infectious disease, foreign policy and security suggests the need for the following research to support a fuller understanding of their linkages:

- need for a fuller assessment, based on available empirical evidence, of the relative risks posed to different population groups of a wider range of infectious diseases;
- need to have accurate assessments, based on available empirical evidence, of the relative burden from infectious diseases compared, for example, to noncommunicable diseases (NCDs);
- need to analyse the impact of other policy areas, notably immigration, trade and aid policies, on the effectiveness of infectious disease prevention, control and treatment measures; and
- need to provide evidence to the foreign and security policy communities that increases understanding of the broader determinants of health, notably structural factors that influence the epidemiology of infectious diseases (e.g. risk factors).

### **3.3 Biological weapons**

*Bioterrorism is a real threat to our country. It's a threat to every nation that loves freedom. Terrorist groups seek biological weapons; we know many states already have them.*

US President George Bush (2002)

Much of the attention to links between health and security policy, notably since 11 September 2001, is focused on the perceived threats from biological and chemical weapons, most worryingly as wielded by terrorist organisations and/or so-called "rogue states" (i.e. bioterrorism). It is widely recognised that the covert and potentially global nature of terrorist activities, and the difficulties of controlling the illicit production and use of biological weapons, creates risks that are not wholly controllable through traditional security policy instruments. Additional concerns arise over the relative ease with which materials for such weapons can be acquired (Meek 2002). This has led to a flurry of national, regional and international activity aimed at preventing the development and use of such weapons, and improving policy responses should they ultimately be used.

These recent concerns about biological weapons began to emerge in the early to mid 1990s<sup>3</sup> in the wake of the Cold War and fears, supported by intelligence reports, of a potential proliferation of materials to produce such weapons with the break up of the Soviet Union. Political and economic instability in the region, accompanied by growing lawlessness and rise of organised criminal groups, raised fears that materials were being sold to terrorist organisations and so-called "rogue

For a discussion of an historical perspective on biological weapons see Christopher et al. (1997).

states" such as Iraq, Iran, Libya, Syria, Cuba, and North Korea (Fidler 1999; Leigh 2001). While selective attacks on individuals using biological weapons have been carried out in the past, the increased potential for causing harm to mass populations and the relatively low cost of such weapons<sup>4</sup> are believed to make the weapons especially attractive to such groups. The use of biological weapons by Iraq against its Kurdish population in 1988, suspicions that the same government was stockpiling anthrax, botulinum toxin, smallpox and other agents prior to the Gulf War of 1991-92, and the attack on the Tokyo subway using sarin by the Aum Shinrikyo cult in 1995, all contributed to a heightened sense of awareness that "non-traditional terrorists" were becoming better organised, including seeking access to frightening lethal biological weapons.

Leading up to the events of 11 September 2001 was a growing discussion in the US and other major western countries, between the public health and security communities, of the need to improve measures to prevent and respond to a major bioterrorist attack. Within the public health community, the focus was on enhancing responsiveness to such an event, recognising that "we will not be able to prevent every act of BW (biological weapon) terrorism" (Simon 1997:428). Indeed, arguing that "the greatest payoff in fighting BW terrorism lies in improving our response to an incident," much effort has been undertaken to anticipate strategic targets, improve surveillance (Shapiro et al. 1997), draft contingency plans (Tucker 1997), stockpile vaccines and treatments, and train and inoculate health personnel (Franz et al. 1997).<sup>5</sup> Within the security policy community, efforts were made from 1994 to negotiate a legally binding instrument to strengthen the Biological and Toxin Weapons Convention (BWC) signed in 1972 (Pearson 1997), press rogue states to disarm, and improve intelligence on terrorist organisations.

The anthrax attacks following 11 September 2001 brought into sudden focus the potential risks from terrorist wielded biological weapons. WHO (2001) encouraged countries to strengthen regional and global surveillance and response measures through the Global Outbreak Alert and Response Network<sup>6</sup>, and international meetings were held to discuss global public health security (see Box 5). There has also been a proliferation of public health literature on how to increase domestic measures to protect against, or respond, to various biological weapons. Other issues raised include clinical diagnosis and management (Lane and Fauci 2001), and when quarantine measures should be used (Barbera et al. 2001). Diplomatic efforts were also raised to achieve a more effective BWC.

However, there has been a clear tension between an internationally versus domestically focused strategy. Initially, anthrax preoccupied popular attention, but fears of other infectious agents were soon raised. Smallpox was already a concern of the US government before these events, as it had ordered 40 million doses of vaccine (US\$343 million) in April 2001 (Laurance 2001). As Donald Henderson (2001), former head of the WHO effort to eradicate the disease, states, "A large stockpile of vaccine is a very high priority because smallpox has a 30 per cent fatality rate. There is no vaccine production capacity anywhere in the world and we now have a very

Biological weapons have been described as the "poor man's nuclear weapon" (Gould et al. 1997).

<sup>5</sup> In November 2002 the UK government announced its intentions to strategically inoculate 700 key health personnel with the smallpox vaccine in order to create strategically available emergency health personnel in the event of a biological attack.

<sup>6</sup>The Global Outbreak Alert and Response Network is a system of 72 global and regional networks of laboratories, public health experts, and internet-based information systems that continually monitor reports and rumours of disease events around the world. The system is backed by WHO and expertise from more than 250 laboratories, and is linked to the International Health Regulations.



susceptible population." Following the anthrax attacks, the US stepped up its stockpiling of the smallpox vaccine, soon joined by other countries including the UK<sup>7</sup>. Given this large scale purchasing, supplies worldwide of the vaccine were soon in short supply. Similarly, worldwide supplies of the antibiotic Cipro (manufactured by Bayer) used to treat anthrax rapidly became in short supply. Potential foreign policy tensions over hoarding of essential drugs by the US were raised as a result (Singh 2001).

#### **Box 5: Health security initiatives since 11 September 2001**

*7 November 2001*

Global Health Security Action Group and Global Health Security Network established following meeting in Ottawa by experts and officials

*14 March 2002*

Ministers, Secretaries and officials from Canada, European Union, France, Germany, Italy, Japan, Mexico, the UK, US and WHO meet in London to strengthen coordinated responses to improve health security

*12 June 2002*

President Bush signs US Public Health Security and Bioterrorism Bill

As well as stockpiling vaccines and drugs, governments have increased efforts to improve domestic capacity to respond to public health emergencies caused by bioterrorism. The US has focused its efforts on domestic measures. Part of the mandate of the newly created Department of Homeland Security, for example, is for this purpose. Strategies identified include improved inspections of food entering ports, tracking biological materials in the US, strengthened communication networks, stockpiled vaccines, and development of better medicines (Bush 2002). Unvariably, other countries such as the UK<sup>8</sup>, Canada and Australia have explored similar domestic strategies. Nonetheless, tensions have arisen over the US government's decision to pull out of negotiations on the BWC, and its clear priority to focus on domestically-based security measures.

Overall, there is understandable yet possibly disproportionate attention being paid to the threat of biological weapons as an issue bringing together the public health and security policy communities. Policy responses thus far in the US have been dominated by traditional security measures, notably efforts to shore up "at the border" controls and improve systems of intelligence notably in the US. Such measures are intended to prevent a bioterrorist attack. The public health community, in contrast, has focused on developing effective responses in the likelihood that biological weapons are used. These measures are divided between improving international surveillance and monitoring, and strengthening domestic public health systems, even at the expense of undermining the capacity of other countries (e.g. stockpiling of drugs).

<sup>7</sup> The UK Department of Health holds pre-11 September stocks for 3 million people which could be diluted to cover 15 million people (Meikle 2002).

<sup>8</sup> For example, the UK Public Health Laboratory Service (UK PHLS 2001) issued guidelines for action in the event of an anthrax attack.

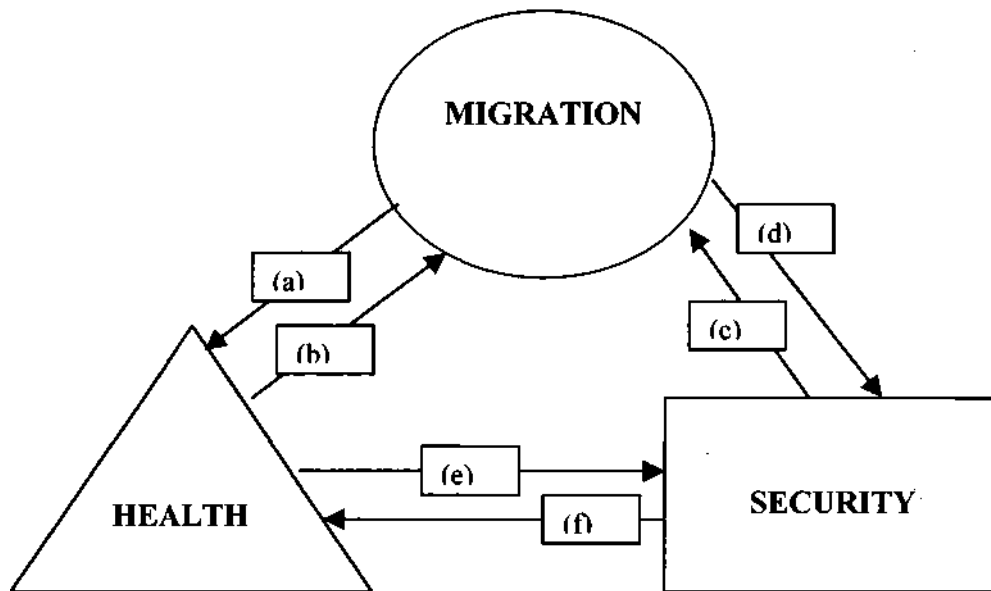
Given the degree of attention being given to this subject at present, this review recommends that the proposed research programme not undertake further research in Phase II. However, consideration of the wider implications in terms of potential foreign policy and security concerns arising from emerging policy would be important.

### **3.4 Global demographic trends, health and security policy**

During the 1990s there was a flurry of interest within security studies over the potentially destabilising effects of demographic trends, including population growth, age structures, and large-scale population mobility. For example, the US Department of Defense (DoD) report *Global Demographic Trends Through 2025: Implications for US Defense Policy* (2002) begins with the assumption that US national security in a changing world requires enhanced knowledge of demographic trends globally, in key regions and in the US. It states that demographics are important in determining the degree and types of threats the US is likely to encounter; the future capacity of allies and military services to sustain reasonably sized armed forces; the long-term prospects for possible competitors; and the long-term prospects for key regions.

The multi-directional links between health, demographic trends and security are important to untangle (see Figure 1). First, population mobility has been a historically significant factor in the increased spread of infectious disease, depicted as relationship (a). The so-called "Columbian exchange" of infectious agents, from European settlers to the indigenous populations of the Americas, resulting in large-scale decimation of the latter, is well-documented (Crosby 1972). The spread of cholera (*Vibrio Cholerae classical*) from South Asia in the nineteenth century through seven worldwide pandemics resulted from different forms of population movements including displacement of indigenous people by British colonisation, troop movements between Europe and Asia, migration of British expatriates and their families to and from the region, pilgrims travelling to Mecca, and commercial traders (Lee and Dodgson 2000). Meningococcal disease caused by *Neisseria meningitidis* serotype W135 has also come to be associated with the annual haj pilgrimage which draws millions of Muslims worldwide to the Middle East. In 2000 there was a serious outbreak of the disease, resulting in enhanced surveillance systems and policies to encourage pilgrims to undertake vaccination beforehand. Intensifying population mobility amid globalisation has also raised concerns about the threat of increased transmission between high-prevalence and low-prevalence areas from tuberculosis and HIV/AIDS, sometimes cast in terms of a new security threat (Colgan 2002: 6) as described in relationship (e).

**Figure 1: Potential relationships among health, migration and security**



Second, poor health conditions can be a cause of demographic change as shown in relationship (b). Most immediately, population mobility may result from people fleeing to escape disease outbreaks, such as plague during the Middle Ages when quarantine measures were first introduced by Italian city states. More recently, the outbreak of plague in the Indian city of Surat led to hundreds of thousands fleeing the area. To the extent that large population movements result from disease outbreaks, we can observe relationship (c). In the longer term, disease can skew the age structures of populations if they are prevalent in certain age cohorts. HIV/AIDS, for example, is taking an alarming toll on Africans in their most productive adult years (20-50 years), leaving behind hundreds of thousands of AIDS orphans and elderly people to care for them. Again, this can have resultant security implications (c) as fewer adults are available to support economic activity or military forces.

Third, the concept of "youth bulges" is a good example of relationship (c) whereby a demographic trend can contribute to insecurity. Urdal (2002) defines youth bulges as "extraordinary large youth cohorts relative to the adult population. It is argued by Huntington (2001:1) in his "clash of civilisations" hypothesis that political instability in the Arab world is in part due to the large proportion of adult males under the age of 25 years.

I don't think Islam is any more violent than any other religions....the key factor is the demographic factor. Generally speaking, the people who go out and kill other people are males between the ages of 16 and 30. During the 1960s, 70s and 80s there were high birth rates in the Muslim world, and this has given rise to a huge youth bulge. But the bulge will fade. Muslim birth rates are going down; in fact, they are dropped dramatically in some countries.

In his detailed analysis of all sovereign states and political territories, compared by demographic profile and political instability, Urdal (2002) concludes that "youth bulges increase the risk that a country will experience armed conflict." The concentration of youth in large urban areas, especially accompanied by high employment and poor living conditions, can add to potential political instability. Armed conflict arising from such instability, in turn, creates health consequences in the form of deaths and injuries.

Fourth, insecurity can lead to demographic change (d) which, in turn, can contribute to poor health (a). Social transition in the countries of the former Soviet Union, for example, has resulted in severe political and economic instability. Instability has prompted increased migration to other parts of Europe and further afield, both legally and illegally. The latter has included the growing problem of human trafficking, in many cases under duress for the purposes of commercial sex work (CSW) with its associated risks of sexually transmitted disease (STDs) including HIV/AIDS.

Fifth, as well as the causal relations described above, it is increasingly recognised that health can have a bearing on security by being a hindrance to economic development (e). The traditional assumption that economic development must precede improved health has been challenged by the WHO Commission on Macroeconomics and Health which argues that good health is a prerequisite for development (Sachs 2002b).

Finally, security threats have health consequences that, in turn, result in demographic changes (f). Most obviously, armed conflict can result in displacement of populations internally or across national borders (refugees). Such populations may congregate in temporary camps, often with little or no basic access to clean water and sanitation. Cholera and other waterborne diseases can notoriously result. The tragic circumstances of the Rwandan refugee camps around the Great Lakes area of Zaire included a serious outbreak of cholera resulting in around 1500 deaths in 1997. The effectiveness of humanitarian agencies such as the UN and NGOs within a highly militarised context was similarly raised during the Kosovo refugee crisis. The House of Commons Defence Committee, in its report on the Kosovo crisis, commented that "The military presence of KFOR in Macedonia and then AFOR in Albania rescued the aid effort" but then went on to report that "NGOs are understandably wary of becoming too closely identified with the military" (HCDC 2000: lxxxv). General Reith, who commanded AFOR in Albania, told the Committee "I arrived in Albania on 11 April [ 1999] and on the day I arrived I was met by the Albanian Government with open arms. They were overwhelmed by the scale of the problem. The NGOs and the various international organisations were not well coordinated and they too were overwhelmed so there was a major problem", a problem which Reith and the military were instrumental in resolving (HCDC 2000: Q687 and QQ686-705). The Committee concluded that "One of the lessons of Kosovo - as it was in Bosnia and has been elsewhere - is that much further thought needs to be given to military involvement in humanitarian support operations' (HCDC 2000: lxxxvi).

Overall, we conclude that it is important to begin with recognition of the complex links among health, demographic trends and security. Causal relations can begin with any of these three factors, and can flow in multiple directions. We suggest that the following research might be a useful contribution:

- need to document more systematically the multiple ways in which demographic trends, health and security policy are linked;
- need case studies to illustrate these different links based on available datasets;

- need to use case studies as basis for broadening current focus on security consequences of health and demographic trends, towards a fuller appreciation of health and demographic consequences.

### **3.5 Health, environment and security**

As described in Section 3.4 above on demographic trends, the complex links between health, environment and security can be similarly disaggregated. A potentially useful starting point is the debate over the environment and security. One way in which this debate is useful concerns methodology - how scholars have approached the problem of examining the relationship between environmental issues and security and, in particular, the relationship with conflict and state failure. It is useful to ask whether such approaches - particularly the case study/theory building approach of the Toronto Group led by Thomas Homer-Dixon - may be of value here. This approach has recently come under challenge, not least over the case study methodology used by Homer-Dixon and its attempt to provide a relatively simple model linking cause and effect without significant numbers of intervening variables, particularly regime type and democracy (see Gleditsch 1998; Homer-Dixon 1999; Matthew and Dabelko 2000).

At the heart of the orthodox account provided by the Toronto Group is the relationship between the environment, population and conflict. As populations grow, strains on resources grow which affect the environment and may, in turn, be affected by environmental degradation. This may ultimately lead to conflict. This has been developed by Homer-Dixon into a three part model to explain the relationship between the environment and conflict:

- supply-induced stress, where a reduction in the level of available resources - perhaps due to environmental degradation - forces individuals, groups or states to seek more resources;
- demand-induced stress, where population growth means that existing resource levels are no longer adequate;
- structural factors, where there are fundamental problems in the level or nature of resources regardless of population or environmental degradation (Homer Dixon, 1999; Homer-Dixon and Blitt, 1998).

This analogue is useful primarily for its methodological discussions. In particular the literature engages with the question of how to test the theory that the environment (or health) may affect security. Homer-Dixon's three part model may also be of use here, despite the debate over its methodology. But the examinations of environmental security also offer insights into the relationship between the environment, health and security. In particular a key variable is population density related to resources. The question to ask here is whether expanding populations in the third world place demands upon an under-resourced health sector which cannot be met and therefore lead to conflict?

### **3.6 Global health and illicit activities**

A defining feature of globalisation is the increased flow of human social relations across territorially-based boundaries, notably the state. Along with legal activities, globalisation has been accompanied by a wide range of illicit activities. Indeed, the undermining of the state's ability to control certain types of transborder flows has enabled such activities to flourish. It is estimated that organized crime generates US\$750 billion annually, much of it "washed" by complex financial transactions into the global economy. It is also emerging that organised crime

has become a global network, with the groups involved closely linked by supply and demand chains beyond the reach of national authorities.<sup>9</sup>

In relation to health, foreign policy and security, there are at least three forms of illicit activity that may be the subject of further research (Table 4). First, the trafficking of illicit drugs<sup>10</sup> has become a major challenge for all three policy communities. Estimates of the total value of all sales of illicit psychoactive substances range from US\$180-300 billion. It is estimated that as much as US\$122 billion annual is spent in the US and Europe on the three most popular drugs - heroin, cocaine and cannabis. Of this, as much as US\$85 billion is laundered or invested in other enterprises, a sum larger than the GNP of three-quarters of the 207 economies in the world. This makes illicit drug trafficking one of the biggest commercial activities in the world.

Importantly, globalisation has fuelled a restructuring and growth of the illicit drug trade. The drug trade has increasingly become a transnational phenomenon, benefiting from global communications, transportation and financial systems (to launder proceeds). Furthermore, there is a certain degree of specialisation in production: morphine and heroin is now heavily concentrated in the "Golden Triangle" countries of southeast Asia (Laos, Thailand, Myanmar) and the "Golden Crescent" countries of southwest Asia (Afghanistan, Pakistan and Iran). Coca cultivation is carried out almost exclusively among the Andean countries of South America (Colombia, Peru and Bolivia), with 70% of its processing into cocaine taking place in Colombia. Cannabis is more geographically dispersed, with significant sources of hashish being Afghanistan, Pakistan, Lebanon, Morocco, while Mexico, Jamaica, Colombia and Thailand are leading marijuana exporters. In addition, new groups have sprung up and have rapidly expanded their operations internationally in Turkey and Nigeria.

Second, there is a growing illegal trade in the smuggling and trafficking of people. Definitions of undocumented migration vary, with trafficking suggesting an element of coercion for the purposes of forced work, while smuggling entails voluntary payment by an individual to another in exchange for assistance to migrate to another country illegally. The increase in human smuggling overlaps to some extent with trafficking. However, many trafficked persons remaining within their country of origin, and thus may not involve undocumented migration across national borders. Also, undocumented migrants may act on an individual basis or through an intermediary who facilitates their mobility.

In all cases, reliable data is difficult to obtain. It is believed that the trafficking of people is now more lucrative than the global trade in illicit weapons. The UN estimates that four million women, children and men become victims of trafficking each year. Some are captives taken as payment by mercenary armies. Some, especially young girls, are sold by their destitute families. Many are duped into slavery by fraudulent employment brokers who promise legitimate employment. In Europe, for example, there has been a significant increase since the mid 1990s in the trafficking of women from eastern to western Europe for forced prostitution. The trade is closely linked to organized crime groups who are already experienced at trafficking illicit drugs, weapons and other contraband.<sup>11</sup> In the US, 6 out of a total 27 million foreign born residents are

<sup>9</sup> Nicaso A. and Lamothe L., *Global Mafia, The New World Order of Organized Crime* (Toronto: Macmillan Canada, 1995).

<sup>10</sup> The data for this section is from Stares P., *Global Habit, The Drug Problem in a Borderless World* (Washington DC: Brookings Institution, 1996).

<sup>11</sup> USAID, "Women as Chattel: The emerging global market in trafficking," *Gender Matters Quarterly*, 1, February 1999.

'illegal aliens'.<sup>12</sup> Moscow is believed to have 400 000 undocumented foreign workers.<sup>13</sup> In the UK, high-profile cases of deaths of undocumented migrants have been a hint of the degree of organized smuggling of migrants currently taking place across the English Channel.<sup>14</sup>

**Table 4: The foreign policy and health implications of illicit activities**

<b>ILLICIT ACTIVITY</b>	<b>FOREIGN POLICY IMPLICATION</b>	<b>HEALTH IMPLICATION</b>
Trafficking of illicit drugs	Revenues used to support organised criminal activity, terrorism	Increases and sustains widespread addiction to illicit drugs  Increased morbidity and mortality from the use of illicit substances
Illegal weapons sales	Increased availability of weapons among terrorist organisations and civilian populations	Increased risk of injury or death from weapons
Smuggling of people	Undermining of immigration policy Destabilization of local community Financial burden on host country Lucrative source of earnings for organized crime	Health risks to undocumented migrants when being smuggled  Increased risk of transmission of STDs from commercial sex workers
Smuggling of goods	Loss of revenue for national economy  Revenues used to support organised criminal activity, terrorism	Increases supply of cheaper cigarettes  Increases morbidity and mortality from tobacco-related diseases

Third, there has been an increase in the smuggling of contraband some of which have direct health implications. The transborder problem of cigarette smuggling has become a major problem in the context of the changing geography of the tobacco industry. Smuggling occurs when cigarettes manufactured legally are exported without domestic taxes for sale abroad. These untaxed cigarettes are then illegally brought back into the producer country to be sold at a cheaper price on the black market. It is estimated that 6% of the total number of cigarettes consumed

Camarota S., "Immigration from Mexico, Assessing the Impact on the United States," Center for Immigration Studies, Washington DC, July 2001.

<sup>13</sup> Stalker P., *Workers without Frontiers, The Impact of Globalization on International Migration* (Boulder: Lynne Rienner, 2000).

Collin J. and Lee K., *Globalisation and public health: A review and assessment of public health measures in the UK concerned with transborder health risks* (London: The Nuffield Trust, 2002).

worldwide are smuggled (Jha and Chaloupka 2000). The scale of smuggling operations, complex transborder networks of supply and distribution that exists, central role of organized crime in such activities, the laundering of financial proceeds through the global financial system, and difficulties of national authorities in preventing such activities, make tobacco smuggling an issue that defies national boundaries. Furthermore, there is growing evidence that TTCs are themselves implicated in smuggling operations, resulting in litigation and public investigations in the US, UK and elsewhere (Abrams 2000; Joosens 2002).

The effective control of such illicit activities lies in the interests of the health, foreign policy and security communities (Table 1). The increased supply of illicit drugs, greater availability of low-priced (untaxed) cigarettes and alcohol, and public health risks to and from undocumented migration have clear adverse impacts on health. The challenges of controlling illicit activities have been a long standing source of foreign policy tensions. And the substantial funds earned from illicit activities have been found to support the activities of known terrorist organizations and organized criminal networks, creating serious security risks.

On this basis, this review concludes that research on this subject would be worth undertaking in Phase II. While primary data collection would not be possible, and a review of existing datasets would be limited by the invariable difficulties of accurate information on such activities, the subject of illicit activities seems an appropriate one for exploring the policy linkages between health, foreign policy and security:

- need to review the existing data on key types of illicit activities;
- need to assess the scale of such activities and major trends; and
- need to describe the health, foreign policy and security implications of different types of illicit activity.

### **3.7 Health risks to and from military forces**

Militaries are particularly susceptible to health risks. Historically, the US military has experienced higher hospital admissions in combat zones through disease than battle casualties. In the 1990/1 Gulf War, for example, US forces were admitted to hospitals for a range of food borne and waterborne diseases, vector borne diseases (including Sandfly fever, Leishmaniasis, dengue, West Nile Sindbis, Crimean-Congo hemorrhagic fevers and malaria), TB, meningococcal meningitis, and a variety of STDs (CIA, 2000). In peacetime, military lifestyles render them susceptible to a range of STDs while conflict and civil unrest can lead to the spread of disease via the military. Not least, rape is a common feature of war leading to the spread of STDs as well as trauma.<sup>15</sup> Even peacekeepers have been identified as not only being potentially at risk, especially in the context of HIV/AIDS, but as a potential health threat to civilian populations. This was recognised in UN Security Council Resolution 1308 and in follow-up Resolution 1325 (which also identified civilian police). Both Resolutions emphasised AIDS awareness training and recognised the increased vulnerability of civilian populations (especially women) during war.

The impact of infectious disease upon the military's capacity to carry out its duties however has recently become the focus of attention, not least because of HIV/AIDS infection amongst

There is growing evidence of rape being used as a weapon in Bosnia during the 1990s (see for example Seifert, 2002; Isaksson, 2002), while Beevor identifies rape by the Red Army in 1945 as being not only endemic but related to Soviet military norms rather than any desire to punish the enemy (Beevor, 2002).



militaries in sub-Saharan Africa (Ostergard, 2002: 342-3). There is as yet little evidence to suggest that battle performance may be compromised directly, but the indirect impact may be considerable, specifically:

- Poor health may reduce the combat readiness of forces and transfer funds away from combat functions to support (hospitals, disease prevention etc).
- Demand side recruitment into the military may suffer if they are seen to be at risk from disease.
- Supply side recruitment into the military may also suffer if general health levels deteriorate. In Russia for example, one in three recruits to the military are rejected on health grounds (US NIC 2000).
- Fear of infection may reduce the willingness to send troops abroad. US willingness to engage in peacekeeping operations for example has been reduced by the risk of infectious disease (Chalk 2001: 49), while Nigerian forces in Sierra Leone as part of ECOMOG returned with high rates of HIV/AIDS infection (Ostergard, 2002: 342).

Finally, the long term political impact of the growing work on Post Traumatic Stress Disorder is uncertain. Instances of soldiers suing governments for PTSD may lead to a reduced willingness to deploy forces. At the very least there is a widespread understanding now in Western militaries that the deployment of military force - whether as peace keepers or for combat - may result in long term psychological damage as well as physical for a number of men and women.

### **3.8 The role of health in internal instability and failed states**

During the 1990s the problem of internal instability loomed high on the international agenda. This was in part the result of human rights concerns. Ethnic cleansing and other human rights violations in the Balkans and elsewhere led to calls for western intervention.<sup>16</sup> The harrowing images and reports on television screens and through the media more generally led to suspicions that these interventions were fuelled by media coverage, although there is a considerable debate over the extent to which the media drove foreign policy (see for example Farrell 2000). But other more *realpolitik* elements were also involved, not least the importance of maintaining international stability to encourage trade and the development of a global market. The orthodox explanation for world economic growth since 1945 (and in particular Western economic growth) was related to expanding trade. Instability however threatened trade and therefore continued growth. Not only future expansion but even existing trade patterns might be at risk. It became commonplace for the British military, for example, in making the case for its continued importance to comment upon Britain being a "trading nation" and that the British economy was dependent upon international trade.

Key to this latter argument is the assumption that internal instability can spill over into the international domain, and therefore become an area of concern for foreign and security policy. What is unclear is the extent to which ill health can contribute to internal instability, and whether improved health and better health care provision can stabilise states.

<sup>16</sup> The best discussion of the theory and practice of intervention is Wheeler (2000).

The argument that poor health can prove destabilising to a state has been frequently expressed, most notably in relation to infectious disease (see Section 3.2 above). There are two parts to the argument that health may threaten internal stability. The first is that poor health undermines the economic and social structures of the state. Not least, confidence in the state is reduced if it cannot provide a basic level of protection against disease (US NIC 2000). In other words, it may be a symptom of, or a cause in, the breakdown of the social compact whereby the governed allow themselves to be governed for the sake of the common good. Poor health may also contribute to economic decline by forcing increased government spending on health as a percentage of GDP; reduced productivity due to worker absenteeism and the loss of skilled personnel; reduced investment (internal and external); higher insurance costs spent on health provision (see for example US NIC 2000; Ostergard 2000: 344). The impact of HIV/AIDS on economies has been extensively studied (see for example the extensive citations in Ostergard 2000:344). Although there has been less work done on how this might translate into internal instability, there is nevertheless an assumption that this is the case.

The second part of the argument is that the tools of (re-)imposing order, principally the security forces, are particularly vulnerable to STDs (Chalk 2001: 49; Lobe 2001). To what extent this holds for poor health more generally is, however, uncertain. *Prima facie* it would seem to be reasonable to expect security forces to receive better health provision in these circumstances, simply because regime survival might hinge on this. But the social world is rarely as clear cut as this and, even when it is, the law of unintended consequences may operate (for example, better health care for security forces may reinforce the image of exploitation, thus fuelling discontent). Some research may therefore be needed to explore this hypothesis.

What is also unclear from this literature is whether poor health is a cause of instability or a symptom of wider social ills. Or, perhaps more pertinently, it is unclear what variables may make poor health the cause of state failure rather than simply a reflection of a failing state. Nor is it clear how bad matters have to be before instabilities begin to appear. One of the more detailed studies of failed states has come from the CIA's State Failure Task Force (Esty et al. 1999). This independent group was established in 1994 under the sponsorship of Vice President Gore. Its aim was to understand what constituted and what undermined stability in the post-Cold war world. The study identified 75 possible variables in explaining state failure and tested these against the CIA's global database for the 1955-94 period. The study identifies three major variables in explaining state failure: (a) quality of life; (b) openness to trade; and (c) level of democracy.

We should note that health can contribute, directly and/or indirectly, to all of these. However, the study argued that the well known linkage between infant mortality rates and the likelihood of conflict (for example Gaulin 2000; US NIC 2000) was not a causal relationship. Rather, high infant mortality rates indicated a poor quality of life, which in turn was a causal factor. In so doing the study appeared to suggest that health was not itself directly a causal factor in state failure, but that it might be a contributory factor or indeed a reflection of imminent state failure. But the issue of health was not rigorously examined in relation to quality of life as a key variable. The second key variable, openness to trade, can also be affected by health matters. The US National Intelligence Council (2000) estimated that "infectious diseases will continue to cause costly periodic disruptions in trade and commerce in every region of the world". Examples include avian influenza in Hong Kong in 1997 (costing the colony hundreds of millions of dollars), BSE and vCJD in the UK, plague in India, and cholera in Peru in the early 1990s (an outbreak amongst fishermen cost the country an estimated US\$775 million in lost exports and tourism). Finally, the US National Security Strategy (September 2002) argues that health may contribute to democracy by reinforcing the social compact, but that also targeted sanctions (or aid) may place pressure (or allow relief) on a regime (US 2002b).

The vicious spiral of poor health leading to conflict leading to worse health may also be reversed. There is a growing body of work on how initiatives to improve health may be used - deliberately or inadvertently - to improve stability, not least the WHO 'peace through health' initiative (WHO 2000a). An example here is the work of WHO in Bosnia-Herzegovina (WHO, 1999) and in the Maluku Islands in Indonesia (WHO, 2000b). In Bosnia-Herzegovina for example, there is anecdotal evidence that WHO and DfID programmes to rebuild the health system after the conflict assisted in overcoming separatist attitudes, reducing volatility and improving social cohesion (Vass 2002). The negotiations of ceasefires to allow the delivery of humanitarian aid and immunisation programmes may not only serve as a respite from conflict, they may also act as a confidence building measure to allow negotiations for the end of conflict. Vass (2002) notes that, in seven countries recent ceasefires have been negotiated to allow aid delivery, including medical aid.

Although the idea of "health as a bridge to peace" is widely associated with WHO, the role of health in conflict prevention has been picked up elsewhere. The Bush administration for example has portrayed health as a weapon in the fight against terror. Improved health systems may be used as part of nation building and to reinforce democratic principles; denying medical aid through sanctions may also put regimes under pressure, forcing change. However both the principles and practice of the Bush administration have been challenged. Health for nation building has not been evidenced by US policies in Afghanistan, while the effectiveness and morality of such sanctions have been questioned (Horton 2001; MacQueen 2002: 1031). Further, a number have argued that improving health care during a conflict may also be counterproductive on two grounds: that it delays reaching the breaking point where one or both sides decide that they must sue for peace; and that medical aid may be diverted from civilians to the military, allowing it to fight on (for example Vass 2002).

Overall, the idea of health as a bridge for peace has attracted considerable attention. However, there is suspicion among some that it is "ideology that is driving the movement at present" (Vass, 2002). Critically, the evidentiary base appears slim and overly reliant on anecdotal evidence rather than rigorous and systematic empirical work. Moreover, there has been little conceptual work done. There is a rich field of research to be done here:

- What works and why?
- What conditions are susceptible to such an approach?
- What level of investment is required?
- When might it backfire and allow a conflict to continue?
- Can it be used to assist in ending conflicts, or in post-conflict reconstruction and nation building? Can it be used to prevent conflicts?

### **3.9 The impact of armed conflict on health**

Conflict is damaging to health in both a direct sense (combat casualties) and indirect (the destruction of infrastructure). There is of course a considerable literature on dealing with combat related injuries, almost all of which is of a technical medical nature (Pontevea, 2002). Exceptions to this technical literature include work on the ethical dimension. There is also some discussion of the problems of assistance during conflict (see for example Rosen 2002). There is however surprisingly little recent work on the long term impact on infrastructure, in particular relating it to changing Western operational patterns. The costs of war are not merely immediate and direct (most obviously battle casualties but also collateral damage). They are also long term

and sometimes indirect: from disruption to social and economic systems; from environmental side effects; from the possibility of famine; and from increased risk of epidemics (see for example, Ashford and Gottstein, 2002; Dybdahl and Pasagic 2002). Estimates of Iraqi deaths in a possible war with the United States were up to half a million. Of this, short term casualties were as little as 50,000, and long term might 200,000. Of course such estimates were little more than guesses. But what is significant is the manner in which assessments are beginning to factor in the long term and indirect costs of war. This is particularly important given the new normative context of Western military policy. The West's emphasis upon 'humanitarian war', where military actions may be prompted by a concern over human rights abuses and where the conduct of operations is affected by humanitarian concerns such as collateral damage, means that health issues - short and long term - should occupy a place in military strategy.

Modern Western military operations display a number of novel characteristics (McInnes 2002), in particular:

- the attempt to minimise collateral damage and in particular the renewed emphasis upon the traditional just war principle of non-combatant immunity;
- the focus upon a regime or leadership as the enemy rather than the state or people (George W. Bush's advocacy of a 'regime removal' strategy for Iraq is, in this sense, only the latest iteration of a decade-old trend);
- the attempt to minimise friendly casualties through exploiting technology (for example, long range cruise missile attack) or by operating in a manner which will minimise the numbers placed in harm's way (for example, NATO's reluctance to countenance the option of a forced ground entry in Kosovo).

As a result widespread attacks against civilian areas are avoided. But this does not mean that attacks against infrastructure targets are avoided - in fact the reverse. By 'leadership targets' Western militaries include not simply the political and military elite, but the structure that keeps a regime in power. Thus 'leadership targeting' may involve attacks upon communications facilities (including transport), vital war-enabling industries (such as the petrochemical industry) and power generation. In addition, sanctions are likely to be introduced while fears over WMD capabilities may lead to attacks upon the chemical industry, nuclear-related facilities (including power generation) and engineering works. Moreover, if discriminate targeting places friendly forces at risk, then less discriminate targeting may be the end result (as occurred when NATO aircraft flew at over 15,000 feet to avoid Serb anti-aircraft fire in Kosovo). Further, 'leadership targeting' does not mean that enemy military forces are immune from attack. As a result certain weapons may be used which are deemed particularly effective against military targets, even if their long term impact upon non-combatants is problematic (e.g. DU munitions and cluster bombs).

The West now presents itself as fighting 'humanitarian' wars (Coker 2001; see also Kaldor 1999 and Wheeler 2000), where non-combatant immunity is preserved and discriminate targeting ensures proportionality. The problem however is three-fold:

- Discriminate targeting of infrastructure may result in fewer immediate casualties, but may have a long term detrimental effect upon health care in both the relief and reconstruction phases. During the relief phase, the destruction of transportation links may prevent aid getting through to needy areas. In Kosovo, East Timor and Afghanistan, relief efforts were hindered by the military campaign during *and after* the combat phase (WHO, 2001c: 223). During reconstruction, not only might there be difficulties in re-

establishing electrical power and communications, but also local pharmaceutical industries may be affected by attacks upon possible WMD facilities.

- The long term effects of certain weapons have been extensively studied, in particular DU munitions (for example Fetter and von Hippel, 1999 *passim* especially, notes 1,2,3,5 and 10), cluster bombs (Prokosch and Hogendoorn, 2002) and land mines (Maddocks, 2002). Although Western militaries no longer use land mines, they do use DU shells and cluster munitions because of their perceived military benefits. Both have been extensively criticised for their long term health implications (see for example the excellent web page by Gulf War veteran Chris Kornkven at <http://globaldialog.com/~kornkven>).
- In attempting to minimise friendly casualties, enemy military and civilian lives may be placed at disproportionate risk. Martin Shaw has criticised this 'risk transfer militarism' whereby the lives of friendly forces are placed above those even of civilians, and where the long term impacts of actions are not considered if friendly forces may be preserved (Shaw, 2002).

Therefore although the West is attempting to fight its wars in a humanitarian way, it has been criticised for a policy of double standards over prioritising the lives of friendly forces over 'enemy' civilians, and for the use of certain weapons types. What has not been examined is the long term impact of Western-style military operations upon health and in particular upon health-related infrastructure and immediate relief efforts. These concerns are also entirely absent from Western military doctrine, despite an acknowledgment that reconstruction is important and that 'winning the peace' is as important as 'winning the war'.

#### **4.0 Planning for long range global health issues**

Along with the wide-ranging literature described in Section 3.0 exploring particular links between health, foreign policy and security, it is useful for the purposes of this review to examine efforts to forecast future global health trends as a basis for policy making. Forecasting of global health needs and priorities has come from two sources - the public health community and security policy community. The former has come from the perceived need to improve priority setting in the context of the end of the Cold War. The most widely cited source of long term planning on health is the **Global Burden of Disease and Injury (GBD) Project** based at Harvard University. The project was initiated in 1988 to address the woeful lack of basic health data in many countries "needed to inform debate and to assess priorities for public health." Its important contribution has been to estimate current patterns of mortality and disability from disease and injury for all regions of the world, with projections to 2020. Findings suggested, for example, the expected decline of infectious diseases (except in Sub-Saharan Africa) and rise of non-communicable diseases, and the largely unmet mental health needs worldwide. For the purposes of this paper, the GBD project projected that the global pattern of disease burden is expected to shift in important ways by 2020. In 1990, the three leading causes of disease burden were pneumonia, diarrhoeal diseases and perinatal conditions; by 2020 these would be replaced by ischaemic heart disease, depression and road traffic accidents.

While project leaders describe the GBD as "a new and much needed picture of current and projected health needs" (Murray and Lopez 1994:39), data quality has been the foremost criticism of the Global Burden of Disease project, accompanied by sustained debate about the methodological underpinnings and assumptions of the GBD findings (Williams 1999). Efforts to improve and extend this analysis have led to the Global Burden of Disease 2000 Project based at

the WHO under the direction of Christopher Murray who moved from Harvard University to establish the Global Programme on Evidence for Health Policy. The overall purpose of the project is "to produce the best possible evidence-based description of health, the causes of lost health, and likely future trends in health" (Murray et al. 2001). Initial results were published in the *World Health Report 2001*.

The weakness of existing data has also characterized wider debates about the relationship between macroeconomic reform and health development. By the mid to late 1990s, accumulating evidence of decidedly uneven results of neoliberal-based economic policies in the developing world, punctuated by severe crises in parts of Asia and Latin America, fuelled support for a reassessment of the appropriateness of such policy prescriptions. Most notably, it was recognized that policies aimed at creating functioning markets alone were one of the prerequisites, not an end in itself, in development. While such policies can contribute to economic growth in countries with relative equity, strong institutions, institutional capacity, and democratic governance, they can worsen conditions in countries without such preconditions (Weisbrot et al. 2001). As described by Joseph Stiglitz (1998), former Chief Economist of the World Bank and fierce critic of IMF policies following the Asian crisis, 'we have broadened the objectives of development to include other goals, such as sustainable development, egalitarian development, and democratic development. An important part of development today is seeking complementary strategies that advance these goals simultaneously.'

Debates about the true impacts of macroeconomic reform on the health sector have followed similar lines. Contrary to arguments that structural adjustment policies are creating more efficient, streamlined and competitive public health services in the developing world, others have pointed to widespread evidence that neoliberalism is having adverse effects on health, particularly the health of the poor within and across countries. For example, gains in health status by Zimbabwe during the 1980s were pointedly reversed by the introduction of economic structural adjustment programme (ESAP) during the 1990s (Loewenson 2000). The introduction of user fees in countries such as Kenya, Papua New Guinea, Tanzania and Niger were shown to have led to drops in health care use, raising concerns about knock-on public health risks (e.g. STDs, reproductive health). Rather than generating increased resources for health, so-called 'cost-sharing' was substituting and not supplementing public expenditure, resulting in an inadequate resource base to finance essential health services (Jowett 1999). Similarly, the introduction of user fees for water supplies in South Africa, as part of the country's SAP, reportedly led to a serious outbreak of cholera in 2000 (BBC News 2001). On both sides of the debate, weak data remains a major challenge. As Genberg (1992:7) writes, "how indicators of health status are affected by macroeconomic events" remains unclear because "current knowledge does not allow us to be very precise in this respect."

Despite debates over the evidence base, recognition continued to grow of the importance of the social sectors to economic development as an important lesson for the so-called emerging 'post' Washington Consensus. The relationship between better health and economic development has been a core message put forth by WHO Director-General Gro Harlem Brundtland since taking office in 1998. Seeking to elevate health issues on national and global policy agendas, she has recast health from a 'non-productive' social cost, to an essential investment for enabling effectively functioning economies amid globalization: 'health must be seen as a central factor not only in social development, but also in countries' ability to compete on the global economic stage and achieve sustainable economic progress' (Brundtland 2001b).

To support this policy shift, a **WHO Commission on Macroeconomics and Health (CMH)**, chaired by Professor Jeffrey Sachs, was formed in 2000 to undertake studies on 'how concrete

health interventions can lead to economic growth and reduce inequity in developing countries'. Its core message, and one that reverses the prevailing assumption within the aid community that economic development must precede good health, is that

With very modest efforts on our part, we could help save millions of people per year, bolster their economic development, and thereby contribute mightily to our own security, through greater global stability and reduced transmission of disease across international borders (Sachs 2002).

Instead, it argues that poor health is a major barrier to achieving economic development, and that targeted efforts to improve health in poor countries will enable them to overcome poverty and underdevelopment. Furthermore, it argues that many poor countries (especially in Sub Saharan Africa) remain poor, not because of internal failings, but because they are inherently disadvantaged by their heavy disease burdens. This, in turn, contributes to the risk of instability in such countries as they struggle to provide for the basic needs of their populations (Sachs 2002b).

The other major contribution of the Commission's work has been data. The CMH was mandated to recommend 'a set of measures designed to maximize the poverty reduction and economic development benefits of health sector investment' (WHO 2000). This is achieved through fuller costing of the economic burden of poor health, along with estimates of projected investments needed to scale up global health interventions. While reallocation of domestic resources for health is clearly needed, these countries will not break this cycle of poverty without substantial external assistance. On the one hand, the findings confirm the scale of resources needed to tackle major burdens of disease. For example, it is predicted that US\$8 billion per annum is currently needed to efficiently combat HIV/AIDS, rising to US\$15 billion by 2007. A total of US\$25 billion is needed annually for global health needs. This compares with world military expenditure of US\$800 billion per annum. So far the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria has raised only one-tenth of this sum (Sachs 2002b). On the other hand, while the projected sums needed to address major global health needs appear initially daunting, the economic benefits to be accrued, and the economic cost of failing to tackle them effectively, far exceed current resource needs.

Alongside the above initiatives from within the public health community have been forecasting efforts related to health from the foreign policy and security communities. *Global Trends 2015*, a report of the US National Intelligence Council (2000a), takes a look at the world over the next 15 years "from the perspective of the national security policymaker." As an expansion on a similar effort entitled *Global Trends 2010* (US National Intelligence Council 1997), the report is based on consultations held with a wide range of nongovernmental experts outside of the intelligence community including academia, think tanks and the corporate world. The findings are focused around key global drivers and trends that will shape the world of 2015 - demographics, natural resources and environment, science and technology, global economy and globalisation, national and international governance, future conflict, and the role of the US. Described as a "work in progress", the report offers a "flexible framework for thinking about the future".

While the report makes interesting reading, from a global health perspective, the report has a number of important shortfalls. First, discussion of health issues is narrowly confined to one feature of demographic trends along with population growth, ageing, and movement of people. Totalling about three paragraphs, the report predicts that inequities in health status between developed and developing countries will widen. Higher health spending and scientific advances will benefit the former where the epidemiological transition will lead to a rise in the significance

of non-communicable diseases. The burden from infectious diseases will continue to decline in relative terms, but this will be hindered by international flows of people and products, along with anti-microbial resistance. In contrast, developing countries will experience the double burden of infectious and non-infectious diseases, coupled with inadequate health resources and capacities. HIV/AIDS, tuberculosis, malaria and hepatitis will pose particular threats (US National Intelligence Council 2000:24-26). In the context of this broad report, this brief treatment of health issues is perhaps warranted and the trends identified are widely acknowledged ones. Nonetheless, it falls short of offering an appreciation of global health beyond the broadest of trends.

Second, the report's confinement of health to one feature of the demographic driver ignores the close links that the determinants of health and health status have to the other drivers. In large part, this is because the report defines globalisation narrowly in terms of the emerging global economy, a perspective challenged in much of the public health literature (Lee et al. 2002; Lee in press). As such, the report fails to capture the complex causal relations that can occur across the different drivers. Downturns in the world economy can lead to mobile populations in search of employment which, in turn, engage in risky behaviours in terms of HIV/AIDS and other infections. Similarly, conflict can lead to displaced populations that are vulnerable to acute infections that may be spread across national borders and develop resistant forms due to resource constraints. Furthermore, the transborder nature of many of the drivers is given only limited acknowledgement. The world remains categorised in "developing" and "developed" terms, and the trends arising to 2015 are treated similarly so. The dynamic and global nature of the identified drivers, in short, is not reflected in this analysis.

Third, the report is firmly written from a US perspective. With one exception (i.e. International Institute of Strategic Studies, London), all consultations were held in the US. Almost all participants were American. It is perhaps unsurprisingly, therefore, that the report is foremost a consideration of drivers and trends as they impact on US national interests. As discussed above, however, the global nature of many of the drivers, and consequent security risks that arise from them, requires a shift in paradigm that understands the determinants of national security in new ways.

Another major effort to bring more closely together the "new security agenda" with foreign policy has been the **Pivotal States Project** based at Yale University (Chase et al. 1999). In the wake of the end of the Cold War, the project seeks to inform American policy makers who are "seeking new principles on which to base national strategy." It argues that, in today's "disorderly and decentralised world...America's security no longer hangs on the success or failure of containing communism." Hence, there is an effort to understand this more complex world, to identify how there needs to be a shift in US foreign policy, and which key countries and issues need to be more fully engaged with.

At the heart of the approach is a rethinking of traditional "domino theory" according to which the US government perceived a need to intervene in countries at potential risk of falling under Communist influence to prevent neighbouring countries from following suite like falling dominoes. Pivotal states are seen as "new dominoes", defined as "states in the developing world that were swing states, precariously balanced between hegemony and stagnation." They are "geo-strategically placed...large and populous, with a growing middle class, and they are located in positions of importance to U.S. security, perhaps near some of the world's hot-spots or along major maritime routes. More specifically, they meet the following criteria:

- (a) modernising states that face third world challenges (e.g. Mexico, Turkey);



- (b) states balanced precariously between success and failure, with the future bringing either continued political, social and economic reform, or harbour chaos and aggression; and
- (c) states having a potentially significant influence on their regions, perhaps as engines of growth or models of political liberalisation.

Using these criteria, the project identified the following as pivotal states: Egypt, Turkey, Brazil, Mexico, South Africa, Indonesia, Algeria, India and Pakistan.

A second important feature of the project is its effort "to help bridge the conceptual and political divide in the national debate between 'old' and 'new' security issues." Arguing that neither approach by itself will suffice, it identifies the threats to pivotal states (and thus US national security) not as communism and aggression, but rather overpopulation, migration, environmental degradation, ethnic conflict and economic instability. These are seen as "all phenomena that traditional security forces find hard to address."

The 'dirty' industrialization of the developing world, unchecked population growth and attendant migratory pressures, the rise of powerful drug cartels, the flow of illegal arms, the eruption of ethnic conflict, the flourishing of terrorist groups, the spread of deadly viruses, and turbulence in emerging markets - a laundry list of newer problems - must also concern Americans, if only because their spillover effects can hurt U.S. interests.

Using data on these problems in relation to pivotal states, the project concludes that US foreign policy must redirect its efforts to prevent threats to security in future.

There are two important problems with a Realpolitik approach to global health. First, its effectiveness in guiding foreign policy is strongly dependent on accurately identifying states of strategic importance, and implementing health development policies that strengthen and align their capacity to support US national interests. This is the thinking behind the Pivotal States Project, which is intended to anticipate a changing world order. Similarly, Hunter et al. (2002), for example, identify Pakistan as "an excellent example of how we could use health as a foreign policy tool" because of its status as a nuclear power, regional importance, and needed support regarding Afghanistan. At the same time, its health needs are enormous and could be the recipient of major US aid projects. The predictive capacities of foreign policy establishments to identify the pivotal health states, and to target interventions, are thus critical to the effectiveness of this approach.

A second challenge to this approach, and more fundamental, is the contradiction between Realpolitik's focus on inter-state relations and, by definition, the transborder and supraterritorial nature of global health issues. The rapidly emerging field of globalisation and health is premised on growing recognition that an increasing range of health determinants, and the consequent patterns of health and disease arising from them, are not confmeable within territorial (state) borders. A new geography of global health is emerging which is revealing population groups whose health is defined is increasingly defined by emerging global categories of socioeconomic status, gender, education, type of work, access to information technologies and so on. The rapidly rising incidence of obesity among the middle classes in India, Brazil and other so-called developing countries is a good example. Similar patterns of health and disease among low-wage non-unionised manual workers across the world, whether in Kuala Lumpur or California, is another (Lee, in press). In this rapidly shifting and globalised context, making foreign policy to target strategically important countries misses the entire dynamic of globalisation and health. It is not individual countries that require strategic attention, but health issues themselves which have

transborder qualities unconfineable to specific countries. There is a need, therefore, to tackle global health issues by level of health need rather than specific country.

The main shortfall of the Pivotal States project in relation to this review is its surprising neglect of health in the context of an emerging new security agenda. While related drivers, such as migration, environment and demographic change, are discussed at length, there is no mention of impacts on patterns of health and disease. The analysis also remains strongly statecentric, failing to capture the transborder forces and dynamics behind many of these changes. And its starting point is US national interests, on which the project remains strongly focused. Similar to the US National Intelligence Council report, the pivotal states project also gives only passing attention to health. It previews the increased popularity of the **global public goods approach** which focuses on positive and negative externalities arising from activities that spill over national borders.

There have been a number of subsequent efforts to carry out forecasting focused on specific health issues deemed of particular strategic importance. Infectious diseases have received the most attention in recent years within the context of linking health and foreign policy, notably emerging and re-emerging diseases. The US National Intelligence Council (2000b), in its report on *The Global Infectious Disease Threat and Its Implications for the United States*, examined three scenarios for the course of the threat over the next twenty years:

- (a) **steady progress** whereby aging populations, declining fertility rates, socioeconomic advances, and improvements in health care and medical science hastens the "health transition" from a high burden from infectious disease to noncommunicable diseases (low probability);
- (b) **progress stymied** whereby little or no progress in countering infectious diseases is made, leading to the catastrophic spread of HIV/AIDS, growth of anti-microbial resistance, drug resistance, and lack of access to expensive interventions by majority populations (low probability); and
- (c) **deterioration, then limited improvement** whereby threat worsens during first ten years but decreases fitfully afterwards as a result of better prevention and control efforts, new drugs and vaccines, and socioeconomic improvements (high probability).

The report identifies three sets of variables that will influence the impact of infectious diseases: the relationship between increasing anti-microbial resistance and efforts to develop new antibiotics and vaccines; the trajectory of developing and transitional economies, especially concerning the basic quality of life of the poorest in those countries; and the degree of success of global and national efforts to create effective systems of surveillance and response. In all of these projections, it is acknowledged that there are wide variations by region and population groups for these scenarios, with lowest income countries and poorest populations suffering the greatest burden from infectious diseases over the next two decades. Sub-Saharan Africa is especially badly placed.

A follow-up to this study is the US National Intelligence Council (2002) report on HIV/AIDS which makes an explicit link between its projections of future rates of HIV/AIDS infection in Nigeria, Ethiopia, Russia, India and China, and the strategic interests of the US (Table 5). The five countries comprise 40% of the world's population, and are currently experiencing early to mid stages of the epidemic.

**Table 5: Estimated spread of HIV/AIDS in five countries of strategic importance to the US**

	<b>Nigeria</b>	<b>Ethiopia</b>	<b>Russia</b>	<b>India</b>	<b>China</b>
<b>current population</b>					
<b>HIV/AIDS cases (2002)</b>	4-6m (6-10%)	3-5m (10-18%)	1-2m (1-2%)	5-8m (1.2%)	1-2m (.15-.25%)
<b>HIV/AIDS cases (2010)</b>	10-15m (18-26%)	7-10m (20%)	5-8m (6-11%)	20-25m (3-4%)	10-15m (2%)
<b>strategic issues</b>	regional instability  weakening economic growth  ethnic tensions	regional instability  weakening economic growth  high rate among armed forces  ethnic tensions	population decline  military manpower shortages  social and political instability	lack of skilled labour	lack of skilled labour  ability to attract foreign investment  linked to drug abuse

Across all countries, the expected failure to stem the rate of spread in these countries will contribute to growing tensions over levels of international assistance, and how to disburse aid funds. The failure by these five major countries to stem the spread of the disease will bring additional pressure to increase the funding needed. Tensions are likely to arise as to how the donor community allocates these funds - according to greatest current need or ability to prevent future epidemics. Controversy is expected to also arise over the allocation of funding for HIV/AIDS versus other major global health issues such as tuberculosis, malaria and noncommunicable disease control. Further pressure will also be experienced by pharmaceutical companies to reduce the cost of available treatments or any future vaccine. The cost of antiretroviral drugs, while declining in real terms, remains beyond the reach of most infected people in the developing world. If high costs lead to inconsistent, inappropriate use of available drugs, or manufacture of unregulated and/or substandard drugs, this may lead to the spread of drug-resistant strains that pose a potential threat to people worldwide.

In both NIC reports, data sources are an important caveat. All data used for forecasting and projections are taken as indicative of broad trends rather than accurate measures of disease prevalence. It is acknowledged that much disease incidence in the developing world remains unreported or underreported due to lack of capacity, cultural stigma or political sensitivities (e.g. trade impacts). Given inaccurate and incomplete data, modelling to extrapolate trends and project future disease burdens is frequently used, and different methodologies may produce different results.

Overall, the growing literature on planning for long range global health issues reflects a welcome heightening of interest among policy makers, both within and beyond the health sector, in the challenges of health development in a globalising world. Health issues, and notably those that have the potential to have global reach or impact, have found a place on many high-level policy

agendas resulting in renewed efforts to address them through existing and new forms of global governance. Nonetheless, so far the literature remains limited in its scope (e.g. selected infectious diseases), geographical interest (notably the US), and approaches (e.g. economic rationalism). The ability to undertake long range planning also remains hindered by the limitations of available health data. The capacity of the global health community to effectively anticipate and respond to emerging global health challenges will require concerted efforts to address these limitations.

## **5.0 Conclusions and recommendations**

Current research and published literature on health, foreign and security policy is both substantial and wide ranging. Within the scholarly domain, disciplinary boundaries have yielded separate efforts to reflect on traditionally defined theories and concepts. Increasingly, these perspectives have begun to find common ground in other fields, promising new avenues of theorising and empirical analysis. This can be observed between International Relations and Development Studies, for example, where substantial attention has been given to the concept of "human security". Similarly, study of health intervention in post-conflict situations has been extensively studied within the public health field. Nonetheless, this coming together of different scholarly disciplines has been limited in scope, driven by current events rather than a systematic research effort. IR continues to give very limited attention to health issues, with the scholarly links between health and security studies remaining narrowly focused on biological weapons and selected infectious diseases.

Within the policy domain, there are also distinct boundaries separating practice within the health, foreign and security policy communities. Again, there is some engagement in recent years around selected issues, such as bioterrorism and certain infectious diseases such as HIV/AIDS. The emerging concept of "public health security" has become increasingly discussed in the wake of the events of 11 September 2001 and subsequent "war on terrorism". However, these policy links are driven by recent events, rather than a clear and strategic framework for understanding and responding to policy convergence or synergies. Furthermore, the policy domain remains highly contested, with views based on Realpolitik (protection of national interest through unilateral action) conflicting most prominently with Common Security (protection of international community through collective action) and Human Security (protection of individuals and people through the provision of basic needs). These debates are evident within and across various governments.

It is evident that there are clear gaps in knowledge and practice that remain to be addressed. In particular we conclude that:

- There has been very limited direct theoretical and conceptual thinking specifically around health, foreign and security policy. While health is often encompassed as part of a range of factors that, for example, contribute to Human Security, or that represent "new" threats to national security, health is not the central focus of analysis. In part, this reflects the tendency within fields such as International Relations and, in particular foreign policy and security studies, to cast health as "low politics" and within the domestic realm. Health occupies a more prominent place within development studies where it is treated as a core goal of social and economic development efforts, albeit focused on the national and local levels.
- There is a clearly weak evidentiary base surrounding the policy linkages among health, foreign and security policy. This derives in large part from the above lack of theoretical and conceptual work which has led to fundamental weaknesses in causal explanations. While

cause-effect links are regularly put forth to support policy initiatives, these are generally based on a narrow range of data, anecdotal evidence or ideological assumptions. There is a clear need to understand in a more sophisticated way the multiple causal linkages among different variables operating at different levels of analysis across these policy domains.

- Most of the existing research is from a US perspective, and is strongly centered on the furtherance and protection of American national interests. This is problematic in its statecentric nature and its focus on a single state. The interests of other states, most notably in the developing world, and regional perspectives need greater consideration. Furthermore, there is a clear tension between a statecentric focus and the global aspects of many emerging health issues relevant to this subject. Identification of other populations that are not defined by territorial boundaries (e.g. gender, degree of mobility, socioeconomic status, and ethnic identity) is necessary in relation to relative risks.
- Current research is strongly skewed and narrowly focused on selected issues, notably biological weapons and infectious disease. However, undue attention has arguably been paid to these issues by the foreign and security policy communities which is not supported by current data on the real risks to global health (Table 4). Current policy responses have been driven by recent events and popular perceptions, rather than an evidence-based assessment of the relative risks that different health issues pose.
- There is potential for health to be a potentially important foreign policy instrument because of its universal value and perception as a relatively value-neutral form of foreign aid. However, this legitimacy could be undermined by overly zealous attempts to tie health development to national foreign policy objectives as some writers have advocated (Hunter et al. 2002). This is especially so if assistance is given selectively to countries deemed of strategic importance to national interests, rather than those in greatest health need. Such an approach would not sit comfortably with a public health perspective of health as a universal good based on human rights or health for all principles.
- There is some interaction between the research and policy communities through the existing literature but a far greater bringing together of different groups needs to be done around health, foreign and security policy. The relevant scholarly disciplines are notoriously separate in their endeavours, with even seemingly close fields such as IR and development studies having little engagement. Furthermore, institutional structures within most governments similarly separate policy makers, with a few exceptions (e.g. US Department of Homeland Security). In many cases, civil society groups (e.g. Medact) have been more successful at overcoming intellectual and policy boundaries, and their efforts could usefully be built upon.

We recommend that research could usefully be carried out in the following areas:

- Section 2.0 of this paper presents a brief overview of emerging theoretical and conceptual thinking around health, foreign and security policy. The existing literature represents widespread recognition of the need to rethink familiar parameters that maintain health, foreign and security policy as distinct fields of research and policy. However, this work has been limited in scope, focusing on selected links and perspectives. A paper that develops a clear theoretical framework for integrating health more centrally in emerging scholarly and policy initiatives on foreign policy and security would be an important underpinning to research. Such a paper would need to tackle the "inconsistent definitions and poorly defined" concepts (King and Murray 2001) that characterize thinking about new security challenges, as

well as the highly contested nature of thinking about causal explanations, normative assumptions and prescriptive actions.

- There are clear links between global health issues and economic interests that require further analysis (Section 3.1). Attention has so far focused on how health issues might positively (e.g. increased exports of health-related goods and services) or negatively (e.g. HIV/AIDS undermining of economic capacity) impact on a country's economy. Foreign and security policy has been explored as tools for furthering such opportunities, or protecting against such risks. What is less understood is the potential impact of economic policies on health which, in turn, may create foreign and security policy implications. The implications of multilateral trade agreements on health development, for example, have been given growing attention within the health community but have been of limited interest elsewhere. A paper documenting a fuller range of links, supported by available research, would be a useful way of encouraging a broader perspective.
- In addition to the above, lessons can be learned from situations where foreign policy interests can be adversely impacted upon by the mishandling of health-related issues that have been treated as economic concerns. The South African legal case concerning access to generic ARVs demonstrates the potential "fall out" from certain health issues because of negative public opinion. Closer consultation between government departments concerning health, foreign and security policy is needed in such cases to manage such issues more effectively. It is recommended that a paper could be undertaken that documents and comparatively analyses selected case studies that involve these different policy communities. The paper should draw lessons in terms of the types of issues concerned, individuals and institutional structures involved, and how they might work more effectively together.
- One of the issues currently dominating discussion of "public health security" is the risk arising from selected infectious diseases (Section 3.2). This has led to particular attention from the US security policy community which sees ERIDs such as HIV/AIDS, for example, as a potential threat to national interests by creating instability in strategically important countries and regions. The risk to domestic populations from such diseases is also of concern. This review recommends that the foreign and security policy communities need to be encouraged to broaden their perspective and recognise the broader determinants of health. Based on data from the *World Health Report 2002*, it is recommended that a paper addressing a wider range of health risks, and their relevance to foreign and security policy, be commissioned. This would serve to put current preoccupations in relative terms, and to highlight other risks that require more concerted attention.
- Another issue that currently dominates the literature is the threat from biological weapons (Section 3.3). It is not recommended that further research be commissioned in this programme to the subject of biological weapons except to the extent of documenting relative risks compared with other risk factors affecting global health as described above.
- This paper briefly describes the complex links among health, demographic trends and security policy (Section 3.4). Causal relations can begin with any of these three factors, and can flow in multiple directions. It is recommended that research could make a useful contribution by documenting more systematically the multiple ways in which demographic trends, health and security policy are linked. This could be accompanied by case studies to illustrate these different links based on available datasets, and be used as a basis for broadening the current focus.

- This paper finds that the literature on the links between the environment and security is useful for its methodological discussions (Section 3.5). In particular the literature engages with the question of how to test the theory that the environment (or health) may affect security. It is recommended that paper drawing on this literature might usefully illuminate lessons for analysing health and security links.
- The importance of illicit activities for understanding the links between health, foreign and security policy are reviewed in Section 3.6. While primary data collection would not be possible, and a review of existing datasets would be limited by the invariable difficulties of accurate information on such activities, this review recommends that the subject of illicit activities is a particularly useful one for exploring the policy linkages between health, foreign policy and security. There is a need to review the existing data on key types of illicit activities, to assess the scale of such activities and major trends, and to describe the health, foreign policy and security implications of different types of illicit activity.
- The impacts of selected health issues on military capacity has been given attention within the US and UN Security Council (Section 3.7). HIV/AIDS, in particular, has been seen as a potential risk to military personnel and through their practices, civilian populations. This is already a thriving area of study, and this review does not recommend that further research be undertaken in this programme. However, the programme should be aware of the concerns that the security policy community have about this issue and, if seeking to inform policy priorities, will need to be able to put this into the context of relative risks to different population groups using available data.
- There has been considerable attention within the health community, and within aid policy circles, to the idea of health as a "bridge for peace" (Section 3.8). Much hope has also been pinned on using health as a form of "soft power" in foreign policy as a means, for example, of tackling instability in strategically important states. This review finds that the evidentiary base appears slim and overly reliant on anecdotal evidence, rather than rigorous and systematic empirical work. Moreover, there has been little conceptual work done. There is a rich field of research to be done on what works and why, what conditions are susceptible to such an approach, what level of investment is required, when might it backfire and allow a conflict to continue, can it be used to assist in ending conflicts, or in post-conflict reconstruction and nation building, and can it be used to prevent conflicts? It is recommended that a case study exploring these issues might be undertaken.
- Conversely there has been growing attention to the impact of armed conflict on health (Section 3.9). The review finds that limited attention is given to the health impact of armed conflict outside of the health community, despite the campaigning efforts of civil society organisations (e.g. Medact) and public health institutions (e.g. WHO) to draw attention to them. As with foreign policy driven by economic interests (Section 3.1), insufficient attention to health consequences can, in turn, have longer term foreign and security policy impacts. The provision of humanitarian assistance, rebuilding of post-conflict societies, and creation of longer term stability within a country and region, can all be furthered closer attention to the impacts on health of armed conflict. There has been limited attention to these considerations in the literature, and this paper recommends that a paper could be commissioned to document case study examples and draw policy lessons.
- It is recognised that a core part of linking health, foreign and security policy lies in anticipating future needs and priorities (Section 4.0). Strategic planning is dependent on accurate forecasting of trends and changing forces at play. Such exercises are far more

familiar within the security policy community where intelligence gathering includes efforts to predict future risks and opportunities. In recent years, selected health trends (e.g. HIV/AIDS) have come to be factored into such estimates. However, forecasting has not been a traditionally strong focus in the health field, limited foremost by the availability and reliability of accurate data on projected patterns of health and disease. In addition, projections may vary because of a lack of consensus about which models of infectious disease most accurately calculate future rates of infection. Current rates of infection can represent a range of estimates or consensus estimates by recognised experts. All of this poses a major challenge for projecting future patterns of health and disease, and then applying such information for strategic decision making. Nonetheless, it would be essential in seeking to more closely link health with foreign and security policy to develop more effective means of prediction and forecasting. As Berger (2000) writes, "when does a big problem turn into a national security threat"? How do we identify which issues are to be given concerted attention over others? A paper exploring the potential for forecasting such issues, and along what criteria, might be usefully developed as the basis for bringing these different policy communities together.



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