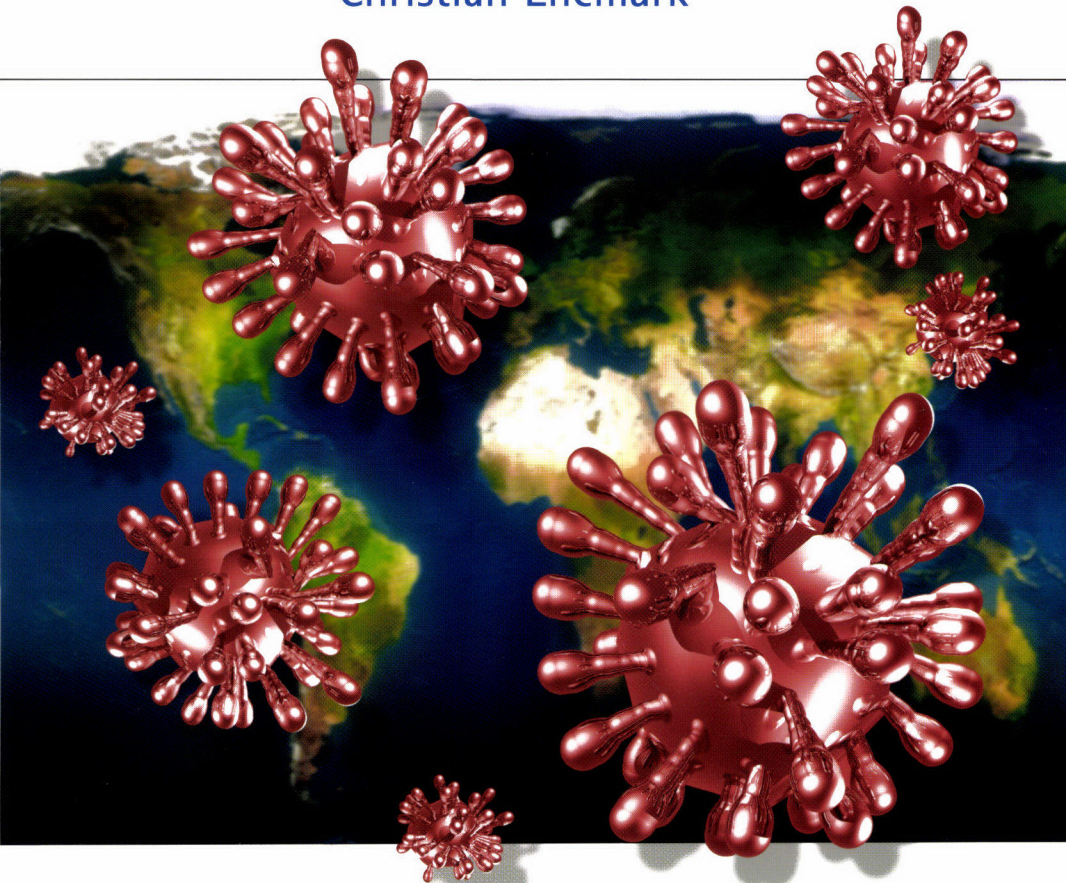


# DISEASE SECURITY IN NORTHEAST ASIA

BIOLOGICAL WEAPONS AND NATURAL PLAGUES

Christian Enemark





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*Christian Enemark*

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## ABSTRACT

In Northeast Asia and around the world, new infectious diseases are emerging and old ones are re-emerging in deadlier guises. The increasing human cost of such diseases creates an imperative for scholars and policy makers to think beyond biological weapons (BW) when contemplating disease and security. Whether deliberately or naturally caused, infectious diseases threaten the national security of states, the personal security of individuals, and are potentially a transnational security threat to all individuals in all societies. At the conceptual level, and for the purpose of responding to these threats, it is useful to think in terms of 'disease security'. An infectious disease, whether of state, terrorist or natural origin, becomes a security threat when its effects reach the point of imposing an intolerable burden on a society. That burden can be measured in terms of the number of people infected and killed, and by the level of disruption and instability that accompanies the disease. The purpose of this paper is to demonstrate the utility of examining disease in two dimensions, natural and deliberate, and of adopting dual use responses accordingly.

Northeast Asia was chosen as a case study because it is a centre of gravity for concerns about disease security. This is due to the region's military history, its high proportion of suspected BW states, fears of biological terrorism, and the region's special vulnerability to new and re-emerging infectious diseases. A number of measures have been and could be applied in Northeast Asia to enhance disease security. Against the threat of BW, military and intelligence responses include tactical response units, deterrence of BW use by threat of nuclear attack, the use of force to destroy BW assets, and the recently-devised Proliferation Security Initiative. There is also scope to address disease-based threats through the legal framework of the Biological Weapons Convention. The most promising approach to disease security is through enhanced public health capabilities. This is essentially a dual use response applicable to both BW and naturally occurring outbreaks of infectious disease. Its two main pillars are disease surveillance networks (domestic and international) and robust public health systems.



## ABOUT THE AUTHOR

Christian Enemark commenced his PhD at the ANU's Strategic and Defence Studies Centre (SDSC) in February 2003 on an Australian Postgraduate Award. His research, entitled 'Disease Security in East Asia', is supervised by Dr Robert Ayson. Mr Enemark studied government and law at the University of Sydney, and he has worked as a policy adviser at the NSW Parliament and NSW Attorney General's Department. He recently published SDSC Working Paper No. 379, *Biological Weapons: An Overview of Threats and Responses*.

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## ACRONYMS AND ABBREVIATIONS

AG	Australia Group
AHG	Ad Hoc Group of States Parties to the Biological Weapons Convention
AIDS	Acquired Immune Deficiency Syndrome
ASEAN	Association of Southeast Asian Nations
BSE	bovine spongiform encephalopathy
BW	biological weapons
BWC	Biological Weapons Convention
CBACI	Chemical and Biological Arms Control Institute
CBDP	Chemical and Biological Defense Program
CCHF	Congo-Crimean Haemorrhagic Fever
CCP	Chinese Communist Party
CIA	Central Intelligence Agency (US)
CSIS	Center for Strategic and International Studies
CW	chemical weapons
CWC	Chemical Weapons Convention
DIA	Defense Intelligence Agency
FDA	Food and Drug Administration (US)
GDP	gross domestic product
GHSG	Global Health Security Group
GOARN	Global Outbreak Alert and Response Network
HIV	Human Immunodeficiency Virus
IDSA	Infectious Diseases Society of America
IHR	International Health Regulations
IISS	International Institute for Strategic Studies
IPMR	Institute of Preventive Medical Research (Taiwan)
ISG	Iraq Survey Group
JAMA	Journal of the American Medical Association
KRIS	Korea Research Institute for Strategy (South Korea)
NBAR	National Bureau of Asian Research (US)
NBC	nuclear, biological and chemical
NW	nuclear weapons
OTA	Office of Technology Assessment (US)
PRC	People's Republic of China
PSI	Proliferation Security Initiative
R&D	research and development
RFCC	Russian Federation Criminal Code
SARS	Severe Acute Respiratory Syndrome

TB	tuberculosis
UN	United Nations
vCJD	variant Creutzfeldt-Jakob Disease
VERTIC	Verification, Research, Training and Information Centre
WHA	World Health Assembly
WHO	World Health Organisation
WMD	weapons of mass destruction (generally assumed to mean nuclear, biological and chemical weapons)

# DISEASE SECURITY IN NORTHEAST ASIA: BIOLOGICAL WEAPONS AND NATURAL PLAGUES

*Christian Enemark*

## INTRODUCTION

### *Beyond Biological Weapons*

The central argument of this paper is that scholars and policy makers should regard infectious diseases as a threat to security. On 31 May 2003 delegates to the International Institute for Strategic Studies second annual Asia Security Conference convened in Singapore. Security measures at the conference included fever-detecting thermal cameras scanning people to ensure they did not exhibit symptoms of Severe Acute Respiratory Syndrome (SARS).<sup>1</sup> While terrorism and weapons proliferation were hot topics of discussion, the conference overlooked what should by then have been a glaringly obvious threat to regional security — newly emerging infectious diseases and the re-emergence of old ones in deadlier guises.

The increasing incidence of such diseases creates an imperative to move beyond biological weapons<sup>2</sup> (BW) when contemplating disease and security. This paper introduces the term 'disease security', which is concerned with protecting human populations against illness and death caused by BW or natural outbreaks of infectious disease. Whether deliberately or naturally caused, infectious diseases threaten the national security of states, the personal security of individuals, and are potentially a transnational security threat to all individuals in all societies.

At the outset, disease security is to be distinguished from a more general notion of health security. To say that anything which jeopardises the perfect health of an individual is a security threat is too broad a notion to be analytically useful. Rather, disease security is concerned with infectious diseases alone (those caused by micro-organisms such as bacteria and viruses), and only those that pose a risk of serious illness or death. All societies tolerate a certain degree of illness such that not all infectious diseases may be considered security issues. The common cold, for example, is a viral illness whose mild effects are readily overcome. An infectious disease becomes a security threat when its effects reach the point of imposing an intolerable burden on society. That burden can be measured in terms of the number of people infected and killed, and by the level of disruption and instability that accompanies the disease.

To 'securitise' infectious diseases is to seek some of the overriding political interest and superior financial resources associated with more traditional military concepts of security. Labelling something a security issue lends it a sense of urgency, attracts greater public attention, and implicitly demands resources.<sup>3</sup> In so doing, some commentators might complain that the humanitarian imperative of infectious diseases becomes de-emphasised.<sup>4</sup> But no matter how one looks at this issue, the huge potential and actual loss of life resulting from disease is undeniable. Humanitarian motivations alone are not sufficient to address this problem. In appealing to national governments – still the principal players in the international arena – infectious diseases need to be portrayed in such a way as to stimulate concerns about national interests. Historically, governments have shown greater enthusiasm towards their own security than they have towards humanitarian causes.

Altruism seldom motivates as much as pragmatism, so disease security is about getting to the practicalities of protecting states and populations. The most important practical consideration is how to respond to disease-based threats. Accordingly, this paper emphasises the need for 'dual use' responses applicable both to deliberately inflicted and naturally occurring infectious diseases. Some military mechanisms envisaged for addressing BW threats, such as tactical response, deterrence and the use of force, are generally of little or no use when contemplating natural disease outbreaks. There are, however, a number of worthwhile responses available which rely on intelligence, legal and public health measures. Of these, public health responses offer the greatest potential for a truly dual use approach to disease security. Whether an infection arises from a deliberate act or a natural event, health care resources and medical professionals will be the primary defence for human populations.

There is a tendency among security analysts concerned about 'mass destruction' to put BW into a category of threats alongside nuclear and chemical weapons. This might make sense when contemplating the possible mass casualty consequences of all these weapons, but it inappropriately downplays the fundamental scientific differences between them. For policy purposes, BW should be regarded less as being comparable to nuclear and chemical weapons, and more as being essentially a disease threat. In this respect, it is artificial to cordon off BW from other infectious disease issues. Whether a disease outbreak was of natural or deliberate origin, the required responses in the health care arena would be largely identical. Broadly speaking, the security response nexus between public health and BW exists in three dimensions:

1. *Research* — the study of naturally occurring infectious diseases is related to research into the prevention or mitigation of deliberate biological attacks. Experts from one area can be useful in the other.
2. *Surveillance and detection* — public health procedures that monitor epidemics, spikes in pharmaceutical purchases, and visits to emergency rooms are often the same procedures needed to identify and respond to a BW attack.
3. *First response and consequence management* — whether a disease outbreak is deliberately or naturally caused, the same tasks will be required of doctors, nurses and ambulance drivers.<sup>5</sup>

In the second half of the twentieth century an intellectual infrastructure evolved with respect to nuclear weapons (NW) that provided a common framework for understanding between nuclear physicists and security analysts. No such infrastructure exists for understanding the disease security challenge.<sup>6</sup> This is largely because security analysts and life scientists have historically never had enough interaction as would have necessitated the development of a common language. At the start of the twenty-first century, public health and security planners alike face the dual threat of BW and infectious diseases. There is now an urgent need for experts in both spheres to join forces in engaging the problem of disease security.

Most of the literature relevant to this paper tends to be either exclusively disease-oriented or security-oriented. Disease-oriented studies (mostly in scientific and medical journals) focus specifically on the sources and epidemiology of particular viral and bacterial strains. By contrast, much of the security-oriented literature found in international relations journals tends to emphasise just one aspect of the threat posed by pathogenic micro-organisms — their use as weapons by states or terrorists.<sup>7</sup> Through use of the unitary concept 'disease security', this paper sets out to blend these two major approaches. While there are sometimes difficulties reconciling the language and worldviews of the public health and security studies disciplines, their mutual concern with protecting human life provides a useful starting point.

This case study of Northeast Asia is intended to demonstrate the utility of thinking in disease security terms. It explores how BW and natural disease affect the security of states and individuals within the region. A global study would probably be too unwieldy and would not allow for the way different diseases affect different parts of the world. A study of disease security issues in a single state would have limitations because of the inherently transnational nature of infectious diseases. Instead, by adopting