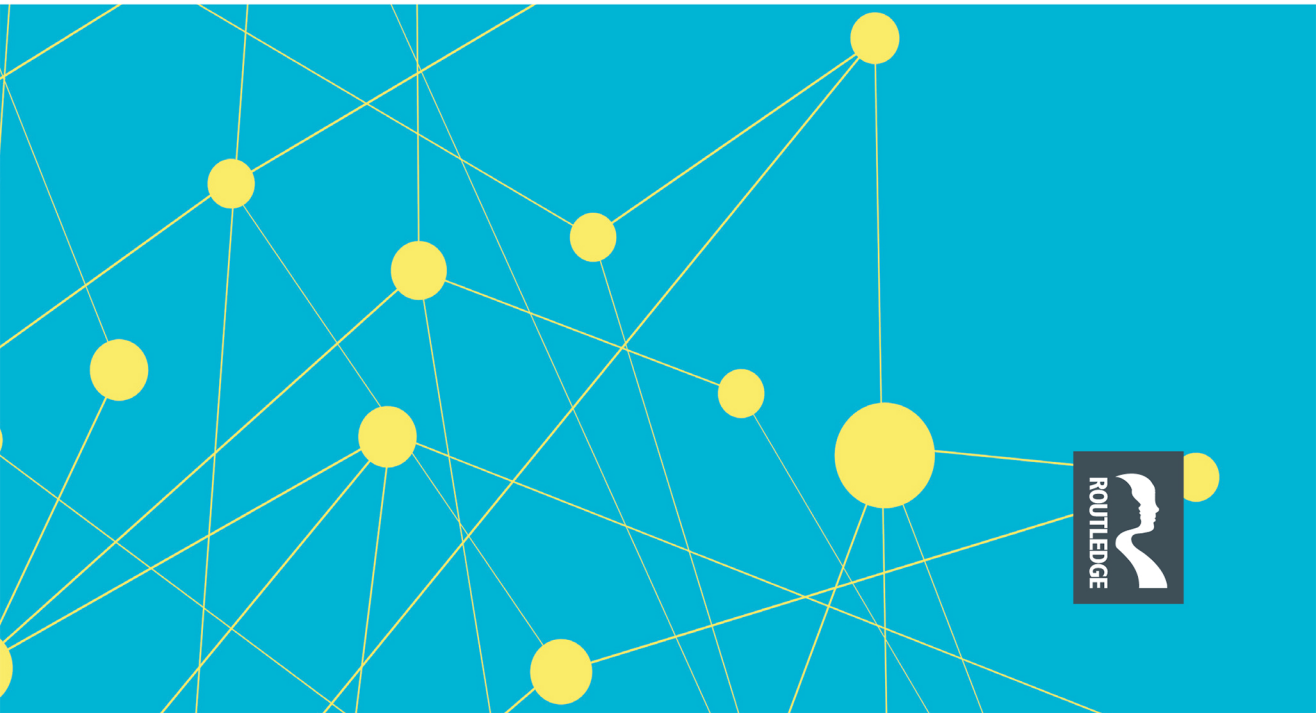
HEALTH SECURITY INTELLIGENCE

Edited by
Michael S. Goodman, James M. Wilson and Filippa Lentzos



Health Security Intelligence

Health Security Intelligence introduces readers to the world of health security, to threats like COVID-19, and to the many other incarnations of global health security threats and their implications for intelligence and national security.

Disease outbreaks like COVID-19 have not historically been considered a national security matter. While disease outbreaks among troops have always been a concern, it was the potential that arose in the first half of the twentieth century to systematically design biological weapons and to develop these at an industrial scale, which initially drew the attention of security, defence and intelligence communities to biology and medical science. This book charts the evolution of public health and biosecurity threats from those early days, tracing how perceptions of these threats have expanded from deliberately introduced disease outbreaks to also incorporate natural disease outbreaks, the unintended consequences of research, laboratory accidents, and the convergence of emerging technologies. This spectrum of threats has led to an expansion of the stakeholders, tools and sources involved in intelligence gathering and threat assessments.

This edited volume is a landmark in efforts to develop a multidisciplinary, empirically informed, and policy-relevant approach to intelligence-academia engagement in global health security that serves both the intelligence community and scholars from a broad range of disciplines.

The chapters in this book were originally published as a special issue of the journal, *Intelligence and National Security*.

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Preface

"It all started with a beer…" In March 2019, Jim Wilson and Mike Goodman met over drinks during the International Studies Association annual meeting in Toronto. Jim had just led a panel discussion on health security intelligence, having provided a review of warning intelligence failures for influenza pandemics and coronaviruses such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). There were less than five people in the audience, but it wasn't the volume of people that was important – it was who they were. One of them was Mike. Another was Steve Marrin, the *Editor* for the journal *Intelligence and National Security*. There was purpose in the panel and purpose in those beers, which was to raise the concern that the world was repeating history and missing critical warning indicators of health security crises. The debate that night was whether we were over-hyping the risk or simply lucky after seeing the rise of HIV/AIDS, the introduction of West Nile and Zika viruses to the Western Hemisphere, the 2009 H1N1 influenza pandemic, and the multiple rounds of Ebola, Marburg, and Nipah viruses. The discussion focused on health security intelligence as its own discipline, however an orphan among our nations.

This chance encounter led Jim and Mike to approach Filippa Lentzos to edit a Special Issue on 'Health Security Intelligence' in *Intelligence and National Security*. This triumvirate was a great meeting of minds: Jim is a medical doctor in the US who has worked on the prediction and responses of natural outbreaks of disease; Mike is a Professor of Intelligence and International Affairs at King's College London, who has worked at the interface of the academic and practitioner worlds of intelligence and has a particular interest in scientific intelligence; whereas Filippa, a senior lecturer at King's and co-director of the Centre for Science and Security, is an international expert on biological threats who has regularly briefed the UN and other august bodies. Each offered a different perspective to the project and focused on their own areas of expertise to bring what we thought at that time, in the autumn/Fall of 2019, to be a novel and prescient idea.

About two weeks after the manuscripts were submitted, an unusual outbreak of respiratory disease was reported in Wuhan, China – the beginning of the COVID pandemic. The Special Issue appeared shortly thereafter, and suddenly we looked like fortune tellers. This book is a re-publication of that Special Issue. Despite the dramatic changes the world has faced in the last 18 months, we decided to preserve the chapters in their original presentation and not ask authors to update them in the light of what we now know. The majority have nothing to do with what has happened, but they do reflect broader issues around health security intelligence.

Many of those who have worked in this area were not surprised by the COVID outbreak, but it has served to highlight how governments need to move beyond traditional conceptions of threat and risk to consider a broader array of topics, particularly those that might arise naturally. At the time of this

writing, there is no indication of a COVID Commission in the midst of questions about whether the virus' abrupt appearance was the result of an undisclosed laboratory accident. There is no indication the world will finally invest in a health security warning intelligence system. The future is uncertain and portends a repeat of the outcomes should we again fail to heed the lessons of the past.

Filippa, Jim and Mike
July 2021

Introduction: Health Security Intelligence: engaging across disciplines and sectors

Filippa Lentzos, Michael S. Goodman and James M. Wilson

ABSTRACT

This article introduces the Special Issue on Global Health Security. It provides an overview of the health security threat spectrum, tracing how perceptions of biological and health security threats have evolved in broad terms over the last century from deliberately introduced disease outbreaks to also incorporate natural disease outbreaks, unintended consequences of research, laboratory accidents, lack of awareness, negligence, and convergence of emerging technologies. This spectrum of threats has led to an expansion of the stakeholders and tools involved in intelligence gathering and threat assessments. The article argues that to strengthen global health security and health intelligence, the traditional state-based intelligence community must actively engage with non-security stakeholders and incorporate space for new sources of intelligence. The aim of the Special Issue is to contribute to the larger effort of developing a multidisciplinary, empirically informed and policy-relevant approach to intelligence-academia engagement in global health security that serves both the intelligence community and scholars from a broad range of disciplines.

As we write, coronavirus disease (COVID-19) is rapidly spreading around the globe, with more new cases of infection now being detected outside China than in it. There are significant concerns not only about the pandemic's health impacts, but about its socio-economic impacts. Stock markets are tumbling, borders are closing, supply chains are interrupted, international meetings and sports events are cancelled, and there is talk of more severe social distancing measures.

This Special Issue of *Intelligence & National Security* introduces readers to the world of health security, to threats like COVID-19, but also to the many other incarnations of global health security threats and their implications for intelligence and national security. The Special Issue was conceived and written before COVID-19 emerged and hit our headlines in early 2020. Yet while the individual articles do not engage with the outbreak explicitly, the points they make form valuable reading in these unsettling times. The over-arching message is that to strengthen global health security and health intelligence, we need to engage across disciplines and sectors. This Special Issue is an effort to nurture that debate. By way of introduction, we provide readers with an overview of the health security threat spectrum, and how perceptions of biological and health security threats, as well as the political responses to them, have evolved over the last century. We also provide a brief sketch of intelligence and biological threat assessments, today and in the past. The authors in the Special Issue are briefly introduced along the way; more extensive biographies accompany their individual articles.

Deliberate disease outbreaks

Disease outbreaks like COVID-19 have not historically been considered a national security matter. While disease outbreaks among troops have always been a concern, it was the potential that arose in the twentieth century to systematically design biological weapons (i.e. combine dangerous bacteria or

viruses with a delivery mechanism to inflict harm) and then develop these weapons at an industrial scale, that initially drew the attention of security, defence and intelligence communities to biology and medical science.[1] Still reeling from the horrors of gas warfare in World War I, and from the 'Spanish flu' that killed over 50 million people towards the end of the war, the 'civilised world,' represented by the League of Nations, prohibited the use of asphyxiating, poisonous or other gases in war as well as 'bacteriological methods of warfare' under the 1925 Geneva Protocol. Essentially a no-first-use agreement, the Geneva Protocol was not designed to stop the development of biological weapons, and significant programmes to build biowarfare capacities soon ensued in several states. Yet, despite intensive development and testing, which eventually demonstrated that biological weapons could form as great a threat to large populations as nuclear weapons, biological weapons were not assimilated into military thinking and planning, and there has been no known use since 1945.[2] In a political move that caught American bioweaponeers off-guard, the newly-elected President Richard Nixon unilaterally renounced biological weapons in 1969, paving the way for the multilateral Biological Weapons Convention comprehensively prohibiting biological weapons to be negotiated and agreed at the United Nations in the early 1970s.

Bioterrorism first emerged as a political concept during the early 1990s in the United States.[3] As the Cold War faded, the threat of terrorists armed with biological weapons and other 'weapons of mass destruction' began to replace the Soviet threat. Different assessments of the importance, urgency and scale of the threat were present in the early political debates on bioterrorism.[4] 'Alarmists,' who included prominent scientific and technical advisers, tended to emphasise the possibility of 'apocalyptic' attacks with natural pathogens and genetically engineered hybrids, and the vulnerability of the civilian population. They were less focused on the identities of 'bioterrorists' and in their interests in pursuing such attacks or in their capacities to do so. 'Sceptics,' on the other hand, tended to have background and training in the history, politics and culture of terrorism, and for them, questions of identity, interests and details of past attackers were the primary questions to ask. Although little credible evidence existed at the time that such states or terrorists would, or even could, resort to biological weapons, alarmism ultimately overcame scepticism, and federal funds poured into new US preparedness and civilian biodefense programmes of considerable institutional proportions.[5]

The 'Amerithrax' attacks – as the FBI code-named the series of anonymous letters containing anthrax sent to media outlets and the US Senate within weeks of the '9/11' terrorist attacks on New York and Washington on September 11th, 2001 – revealed serious shortcomings in US biosecurity. They also raised fears about the growing potential for bioterrorism on American soil. The threat of bioterrorism became one of the Bush administration's key security concerns during its two terms in office, and initiated a series of new regulations, policies and programmes to further strengthen US preparedness and defence against a bioweapon attack.

Concern about the threat of international terrorism coupled with WMD proliferation was also exported from the United States to international security forums. The international community's premier security forum, the United Nations Security Council, decided, for example, in resolution 1540 that all states should refrain from providing any form of support to non-state actors that attempt to obtain biological and other weapons of mass destruction for terrorist purposes. New laws and other non-proliferation measures were implemented in capitals around the world, and counteroffensives materialized in international risk and security strategies.

Global health security

The World Health Organization (WHO), which has traditionally been reluctant to address security-related issues for fear that its public health mission would be compromised, has increasingly been gaining a profile as a key actor in the security world, and it has exerted significant influence on how perceptions of biological threats have evolved. From the outset, its overriding message has been that, whatever the cause of epidemics or emerging infectious diseases, the response to them will initially be the same: 'In most situations, the public health system will be the first to detect cases and raise the alarm.'[6] In other words, the threat of deliberate use of biological weapons should be

thought of as part of a wider spectrum of threats that also includes the threat of disease from natural outbreaks and accidental releases, and the most effective response to these threats is to bolster public health measures.

Following this lead, the Obama administration ushered in an evolution in US thinking about its response to bioterrorism. The administration's first major policy initiative on biosecurity was the *National Strategy for Countering Biological Threats*. While the Bush Administration's efforts had been focused on biodefence, this strategy was focused on prevention. It emphasised linking deliberate disease outbreaks from bioterrorism attacks with naturally occurring disease outbreaks, to create a more 'seamless' and 'integrated' link across all types of biological threats – echoing what the WHO had been pushing multilaterally for years. In his 2011 speech to the United Nations General Assembly, President Obama called upon all countries to 'come together to prevent, and detect, and fight every kind of biological danger – whether it's a pandemic like H1N1, or a terrorist threat, or a treatable disease.'[7] In February 2014, the US spearheaded the Global Health Security Agenda to establish global capacity to prevent, detect and rapidly respond to biological threats.

A test case was brewing even as the initiative was getting off the ground. By August 2014, the WHO declared the Ebola epidemic in Western Africa a 'Public Health Emergency of International Concern.' But as Margaret Chan, the Director-General of the WHO, explained to the United Nations Security Council, this Ebola epidemic was very different to the many big infectious disease outbreaks managed by the WHO in recent years: 'This is likely the greatest peacetime challenge that the United Nations and its agencies have ever faced. None of us experienced in containing outbreaks has ever seen, in our lifetimes, an emergency on this scale, with this degree of suffering, and with this magnitude of cascading consequences.'[8] The Ebola outbreak was characterised not merely as a public health crisis, but as 'a threat to national security well beyond the outbreak zones.'[9]

Two of the Special Issue contributions focus on the Ebola outbreak and the intelligence gaps that existed in the months before the Ebola outbreak became characterised as a national security concern. Political scientist **Robert Ostergard** draws on newly declassified material to piece together how US embassy personnel in Conakry, Guinea perceived the early stages of the outbreak and the local government's response to it, and how they relayed that perception to Washington DC. His contribution demonstrates the significant potential of health intelligence – the concepts, methods, practices and apparatuses assembled to monitor and detect health events – in assessing risks from an emerging infectious disease outbreak. **Rose Bernard and Richard Sullivan**, who work at the intersection of conflict, health and intelligence, elaborate the role of human intelligence in gathering information on a developing Public Health Emergency of International Concern in their contribution to the Special Issue. They demonstrate how modelling and disease tracking for the Ebola outbreak could have been significantly assisted by a standardised ethnographic and anthropological assessment based on human intelligence. In their own words, 'An assessment of the social and cultural context could have identified healthcare and burial practices, as well as population movements over common borders and identifying potential cases. Local healthcare workers could have been asked about the healthcare capabilities and the most necessary equipment suited to the immediate context. Similarly, interviews with individuals could have identified attitudes towards the ETUs, and potentially identified any false drop in cases.' They conclude that the human ecosystem is increasingly the crucial determinate of disease risk and intervention success in complex outbreaks of emerging infectious disease, and that this requires a wide human intelligence perspective that encompasses anthropology, other social sciences, psychology, economics, history and political sciences.

An emerging infectious disease is one that either has appeared and affected a population for the first time or has existed previously but is rapidly spreading in terms of the number of people getting infected or in terms of the new geographical areas affected. Ebola and COVID-19, along with fellow coronavirus diseases Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), are examples of diseases that have recently emerged. These new infectious diseases are increasing in frequency, due to a variety of factors including: climate change, the increase in world travel, greater movement and displacement of people resulting