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Beyond the Traditional Intelligence Agenda: Examining the Merits of a Global Public Health Portfolio

by ***Loch K. Johnson and Diane C. Snyder***

The traditional idea of intelligence is the spy who provides the enemy's war plans. Actually, intelligence is concerned not only with war plans, but with all the external concerns of our government.[1]

INTRODUCTION

Since the creation of the Central Intelligence Agency (CIA) in 1947, the modern American intelligence community - comprised of thirteen major federal agencies - has focused on a set of traditional requirements for collection and analysis. The preeminent targets have included foreign military capabilities and intentions, the politics and economics of other countries, and worldwide mapping (mainly for military contingencies). Throughout the Cold War these topics as they related to the Soviet Union - the only unfriendly nation capable at the time of destroying the United States with nuclear weapons - understandably consumed a majority of America's intelligence resources. With the breakup of the USSR, the focus of America's intelligence agencies shifted dramatically away from the former Soviet republics (which now draw only an estimated 15 percent of this nation's intelligence resources)[2] and toward a host of other nations and factions that threaten the United States. These targets range from "rogue" countries like Iraq and North Korea to terrorist groups and weapons proliferators.

In this new era, some government officials and outside experts have questioned whether the attention of the CIA and its companion agencies should remained fixed on traditional intelligence requirements. As the danger from Russian tanks and ICBMs has receded, they point to fresh perils, as well as to lingering threats never given adequate attention by policy makers during the Cold War. Thus, the debate has begun over how the pie should be divided with respect to finite intelligence resources in the post-Cold War era.[3]

This article examines a slice of that debate, namely, whether the new intelligence agenda should include greater attention to global health issues. More specifically, it attempts to appraise the desirability of channeling increased resources of the US intelligence agencies toward global disease surveillance and analysis - "public health intelligence." This encompasses issues ranging from the threat posed to American security by pandemics (at the macro-level) to the health of foreign elites whose governments are important to US interests (at the micro-level).

IN SEARCH OF A POST-COLD WAR INTELLIGENCE AGENDA

In 1994, the Congress joined with President Bill Clinton to create a Commission on the Roles and Capabilities of US Intelligence (the Aspin-Brown Commission, led initially by Les Aspin and, after he passed away, by Harold Brown, both former secretaries of defense). The enacting legislation required the commissioners to investigate:

Whether the roles and missions of the intelligence community should extend beyond the traditional areas of providing support to the defense and foreign policy establishments, and, if so, what areas should be considered legitimate for intelligence collection and analysis, and whether such areas should include, for example, economic issues, environmental issues, and health issues.[4]

The Aspin-Brown Commission was only one of several panels of inquiry, public and private, to consider the question of intelligence options for the United States in the aftermath of the Cold War.[5] Although often referred to as the "New Intelligence Agenda," the topics examined by these study groups were in fact not new at all to the intelligence agencies. Economic intelligence had been a subject of interest to policy makers and, therefore, to intelligence officers throughout the Cold War. US intelligence had closely monitored Soviet dumping of radioactive wastes in the Arctic circle, the drying up of the Aral Sea between Kazakhstan and Kyrgyzstan, and a variety of other environmental concerns.

Still, non-traditional intelligence topics were largely relegated to the CIA's back burner during the Cold War. Intelligence managers dipped into this small budget to cope with their more immediate responsibilities for helping to contain the global communist threat. As the Cold War began to wind down, however, resources once targeted against the communist threat became increasingly available for the New Intelligence Agenda. Yet, the back burner is precisely where many critics (inside and outside the intelligence community) would like to banish these new priorities. From their point of view, military and proliferation threats, such as the whereabouts of Russia missiles and warheads, Indian and Pakistani nuclear testing, Iraqi and North Korean nuclear weapons production, and the sale of Chinese missiles to Pakistan, must remain the primary concern of officials responsible for the protection of the American people.[6]

Moreover, in reaction to the runaway defense spending of both superpowers during the Cold War, US government officials have turned to the challenge of bringing the budget back into balance and drawing down the national debt. This mitigates against an expansion of intelligence requirements that lack a strong consensus in their favor and whose direct relationship to national security and foreign policy may not be as readily apparent as warheads and missiles in the hands of rogue nations. "Just say no!" is the private declaration of many intelligence officers who feel overwhelmed by the list of fresh collection and analysis requirements that continues to grow without concomitant resources to fill them.

In sharp contrast, other observers maintain that Americans can no longer afford to define this nation's security in narrow, traditional terms. If the ozone layer erodes, if the rain forests vanish, if the Ebola virus spreads across continents, or, for that matter, if a large asteroid strikes the planet, the American people may be just as endangered - or dead - as they would have been under a massive Soviet nuclear attack during the Cold War. To define the nation's security strictly in terms of foreign military dangers is, so this argument runs, delusionary. An obsession with the USSR obscured our attention to these other dangers, but now they can be addressed; old fashioned views of threat assessment

must undergo new definition in the climate of uncertainty that characterizes the post-Cold War world.[7] As one specialist puts it with respect to public health intelligence, "Infectious diseases are potentially the largest threat to human security lurking in the post-Cold War world."[8]

As for balancing the budget (continues the argument in favor of monitoring New Intelligence Agenda threats), the fresh set of targets can be covered in part by reorienting technical systems - satellites, for instance - once directed toward the USSR. Many maintain as well that the United States has invested too much money in gold-plated collection systems ("platforms") equipped with every conceivable bell and whistle. An official at the National Security Agency (NSA), for instance, has accused the National Reconnaissance Office (NRO) of "building Cadillacs" instead of smaller satellites that could meet America's security needs just as well.[9]

Better intelligence about the new topics can actually save money, according to some reports. The President's Office of Science and Technology Policy has calculated that the lack of early warning about a resurgence of drug-resistant tuberculosis (TB) "undoubtedly contributed to the more than $700 million in direct costs for TB treatment incurred [by the United States] in 1991 alone." The office adds that surveillance of this form of tuberculosis "was not reinstated until 1993, by which time multi-drug-resistant TB had become a public health crisis and millions of Federal dollars had been allocated."[10]

Support for attention to non-traditional intelligence topics comes from the highest levels of government. In a report on "The National Security Science and Technology Strategy," issued in 1996 under the guidance of the National Science and Technology Council (a Cabinet-level panel), President Bill Clinton stated that "no country is isolated from the consequences of newly emerging diseases, environmental degradation, or other global threats - even if the roots of these problems lie in distant parts of the world." As an example, he offered "the tragedy of AIDS [acquired immunodeficiency syndrome]."[11]

This was not the first expression of presidential concern about the AIDS pandemic. In the mid-1980s, President Ronald Reagan issued a directive ordering federal agencies to develop a model that could predict the global spread of AIDS and its demographic effects. Working under the auspices of the State Department, the CIA led this research in cooperation with a number of other government entities (including the Departments of Energy and Defense).[12] The initial focus was on Africa (where the AIDS epidemic originated), as researchers sorted out the infected groups according to such standard demographic variables as age, gender, and rural-urban residence. The model was subsequently expanded to include Latin America and Asia, taking into account as well infection by the AIDS virus (HIV) through intravenous drug use, homosexual transmission, and blood transfusion.[13]

Clearly, the global resurgence of disease has failed to ebb, despite one's hopes in this age of advanced medical knowledge.[14] Yellow fever haunts Benin; viral meningitis has surfaced in Romania, polio in Albania, cholera in the Philippines; bubonic and

pneumonic plague in India; and tuberculosis has undergone a worldwide resurgence. As reported by the World Health Organization (WHO, an arm of the United Nations), malaria, plague, diphtheria, cholera, yellow fever, and dengue have re-emerged around the globe.[15] Moreover, at least 33 new disease-causing organisms have been identified since 1976, including HIV, hepatitis C, the Ebola virus, sabia, and rotavirus, along with the development and spread of previously unseen strains of bacteria resistant to antibiotics.[16] These diseases obey no border guards. As the White House has warned:

Diseases affecting humans, plants, and animals are spreading rapidly as a result of trade and travel and, especially when combined with malnutrition, threaten public health and productivity on a broad scale. The rapidly growing human population, widespread pollution, and the deterioration of other environmental factors that contribute to the maintenance of good health, as well as the lack of dependable supplies of clean drinking water for fully a fifth of the world's people, contribute to the acceleration and spread of such diseases.[17]

It goes without saying that concern over world health risks must not diminish America's vigilance against potential military threats from abroad - priority number one on the traditional intelligence agenda. We continue to live in a time when weapons of mass destruction remain plentiful; the specter of swift and devastating carnage to entire civilizations still stalks the planet, as does the prospect of a terrorist attack using chemical or biological agents. Nor can the United States afford to ignore budget imbalances that have threatened bankruptcy of the American people.

Yet, concerns about new dangers to the United States cannot be ignored either. The topics mandated for investigation by the Aspin-Brown Commission are hardly inconsequential; they warrant close scrutiny by policy makers and the public they serve, if US officials are to make thoughtful judgments about competing intelligence resource priorities. Among these post-Cold War claimants for additional intelligence resources is one that is perhaps the least well understood of all: global public health intelligence.

THE SIGNIFICANCE OF GLOBAL PUBLIC HEALTH INTELLIGENCE

At first blush, it is easy to dismiss public health intelligence as a topic of limited relevance. After all, the United States already has more medical journals and more Nobel laureates for medicine than any other country; the open literature, scientific and popular, on health threats is vast. Moreover, the Centers for Disease Control (CDC) and the Carter Center (both based in Atlanta) monitor and report on health conditions and threats throughout the world. So does the United Nations, as well as a scattering of private organizations like the Federation of American Scientists (FAS).

With all the open sources of information on possible threats to the physical well-being of Americans, why devote limited intelligence resources to this subject? Even the Aspin-Brown Commission, which endorsed the proposition that a "legitimate role for intelligence" existed within the health domain, devoted only a quarter-page to the topic in a 151-page report and offered virtually no evidence to support its endorsement.[18]

Health Intelligence Scenarios

Nonetheless, as one begins to probe beneath the surface of the limited information available on this subject, one realizes that public health intelligence bears more serious attention than it has thus far received. Imagine the following scenarios:

A Third World nation with mineral resources important to the US industrial base has an alarming recent history of AIDS spreading throughout its population. Indeed, about one-third of the children born in the nation's capital city in the previous year began life with HIV in their bloodstreams. The National Security Council (NSC) is concerned about the stability of the regime (presently pro-US), since some of the ruling council appear to have symptoms of the AIDS disease. The President's national security adviser wants to know to what extent the higher echelons of the foreign government have been infected by AIDS and the likely effect this will have on the regime's stability.

The CDC does not collect information about foreign leaders; and, even if it did, many countries hide the truth about the prevalence of AIDS within their own borders and certainly within their own ruling councils. Further, the CDC and its staff would lack the qualifications to write an accompanying analysis on the political, economic and military implications.

The Secretary of State is concerned about widespread unrest in another Third World country that seems to be a result of extensive poverty and disease. Particularly disquieting is the near endemic nature of debilitating intestinal afflictions in its northern territories. The Secretary wants an analysis of what might be causing the illnesses. This information may be available somewhere in UN files, but she wants it right away and with an analysis that will explain the implications for American foreign policy. The Secretary is especially concerned about the potential of infected populations moving across national borders into neighboring states, further spreading the disease.

American troops are ordered by the President to join a UN peacemaking mission in the heart of Central Africa. Among the responsibilities of the field commander is to ensure the safety of the troops against local contagious diseases. He requires up-to-date information on what to expect. Some of this data are available in the open domain, but part of the military action is apt to take place in a remote jungle where few Western medical experts have traveled. The commander needs to know what inoculations and other precautions are necessary to keep his troops healthy - and he needs to know immediately. His counterparts who will be dealing with humanitarian aid have the same concerns; their workers must also be protected from indigenous health risks.

The President has just read a techno-thriller about a member of a Middle East terrorist faction who leases a Twin Otter airplane from a small airport in the Virginia countryside, heads for Washington, DC, and drops a fine rain of anthrax spores out the window from a suitcase while flying at low altitude along the Smithsonian Mall in the nation's capital. In the novel, the attack proves fatal within forty-eight hours to almost everyone inside the Beltway. The President wants to know how farfetched this scenario is, along with a full

report on anthrax and other biological materials that could cause death to Americans targeted by a terrorist attack. He also wants to know what can be done to guard against such contingencies, as well as the history of international agreements on the control of biological substances. He further directs the Department of Defense and the Federal Emergency Management Agency (FEMA) to determine whether the US government is working to develop easily accessible antidotes available to the citizens in case of a terrorist strike using disease-inducing substances. These agencies in turn request from the intelligence community a full report on the threat of biological terrorism.[19]

The Secretary of State is expected to attend a worldwide conference on the health dangers to citizens and military combatants when environments are destroyed as a byproduct of warfare. Of particular interest to conferees is likely to be the effect of toxic gases released in the aftermath of environmental damage incurred during war, as took place during the Persian Gulf conflict in 1991. She requests an immediate intelligence report on the subject.[20]

The Secretary of Defense wants to know if his counterpart in a certain Asian nation is mentally unstable (as rumored), or in fact someone with whom he can deal. He wants, in short, a psychological profile of the foreign minister of defense, prepared before his meeting with him scheduled in a fortnight. For this mental health information, the secretary has no place to go except to the US intelligence agencies.[21]

One does not have to be a Chicken Little to worry about these and related scenarios, although some are obviously more likely and immediate than others. After all, 240 people died in Zaire in 1995 during an Ebola outbreak, whose potential for spread alarmed US officials. There was also the risk of an Ebola outbreak in the United States in 1989 from diseased monkeys housed in a medical facility in Reston, Virginia, near Washington, DC.[22] Moreover, we have experienced worldwide concern recently over an outbreak of "Bird Flu" in Hong Kong (1997).[23] Researchers have pointed as well to a relationship between a nation's health conditions and its degree of political stability. With respect to the AIDS pandemic, for instance, medical writer Laurie Garrett notes that as early as 1988 economists envisioned the creation of "a global underclass" and "an economic disaster" in Africa as a result of

the direct costs of AIDS care, HIV-testing costs, a year's supply of condoms, AZT (azidothymine) and other drugs for opportunistic infections (where such pharmaceuticals were at all available); and loss of net industrial and agricultural productivity due to deceased work force.[24]

Responding to the requirements - sometimes the urgent demands - of policy makers for accurate information on selected world health problems, the intelligence community has established a history of activity in this domain that predates the post-Cold War agenda concerns about global disease surveillance and analysis. Policy makers understand that relying on media reporting alone with respect to world health problems is insufficient. Foreign governments sometimes will try to conceal health dangers from foreign correspondents, as witnessed recently in the cover-up by Chinese military leaders and

Communist Party officials of an AIDS-contaminated blood product (serum albumin) manufactured by a military-run factory in China.[25] The purpose of clandestine intelligence collection is to help ferret out such hidden information.

Macro-Level Health Concerns

The intelligence agencies are expected to tackle the question of health conditions in entire countries and regions. Some observers believe, for example, that Russia's greatest challenge presently is not so much economic or military reform but the health of its citizens. Thanks in large part to a high rate of vodka consumption, Russia's male population is suffering high mortality rates, leading some analysts to predict that rampant alcoholism may prevent Russia from ever achieving the economic and political reforms to which it aspires.[26]

Long before discussion of a New Intelligence Agenda emerged in the wake of the Cold War, the intelligence community generated studies on country, regional, and indeed global health trends, supplementing UN, CDC, and other public reporting with information from so-called all-source collection (that is, open as well as clandestine). One of the strong contributions made by government intelligence analysts is the skillful blending of open information (roughly 80 percent of the total in most cases) with secret "nuggets" from espionage channels - something no one else is in a position to do.

Separating the wheat from the chaff in the open information, that is validating what is truly reliable in the public record, can be an enormously valuable but often difficult task in itself. Is a particular city in Bosnia actually under siege, as reported (let us say) by a European correspondent? What is an accurate population estimate for the city, counting fresh waves of refugees, so that the amount of humanitarian aid flown in will fit the city's needs without creating surpluses that will foster a black market? What is the quality of the drinking water in the city? Is the report of the European correspondent accurate about an outbreak of cholera in the city's main hospital? How much and what kinds of medicines are available in the hospital?

On the list of health topics analyzed by the US intelligence agencies in the past have been studies on the access of foreign peoples in developing countries to safe drinking water and adequate sanitation. The underlying assumption was that a populace whose physical and mental well-being is under stress is vulnerable to radical political movements and other manifestations of social and political unrest. That, in turn, could undermine the stability of a foreign regime and, therefore, possibly affect America's interests.[27] Another topic of increasing concern is the spread of HIV in foreign countries, which is so extensive that it may well begin to erode the stability of some regimes. In Janeiro, Zaire, for instance, 23 percent of the babies born in 1990 reportedly had the AIDS virus.[28] American intelligence units have also gathered information from around the world on medical concerns related to peacekeeping and humanitarian operations, data that are shared with UN and NATO officials. Of recent special concern have been the preparation of assessments on the incidence and the effects of HIV and AIDS on foreign military forces with whom the United States must work shoulder-to-shoulder in the field, as well

as possible hazards to American soldiers from having to handle HIV-infected prisoners of war or American civilians involved in the humanitarian aspects of peacekeeping missions.[29]

The intelligence agencies also keep tabs on environmental health dangers. The accident that occurred in 1986 at the Chernobyl nuclear plant, located in the Soviet Ukraine, provides an example. In the region near the stricken plant, cancer cases have doubled and calves are born routinely without heads and limbs. Radioactive particles from the Chernobyl melt-down have been tracked as far away as Scandinavia. One ranking UN official estimates that "up to 40 potential Chernobyls are waiting to happen in the former Soviet Union and Central Europe."[30] What if another Chernobyl were to occur? What would be the health implications for US personnel and citizens traveling or living in Europe, and for America's allies?

A related concern is biological warfare. While beyond the scope of this analysis, the federal government is well aware of the serious risks faced by US troops abroad. "Reversing earlier opposition, the nation's military chiefs have endorsed a plan to vaccinate all US forces against anthrax in what would be the Pentagon's first regular inoculation program against a germ warfare agent," the *Washington Post* reported in 1996. "The about-face . . . reflects heightened Pentagon concern about the prospect of biological attack. Iraq, Russia and as many as ten other countries are said by US officials to have at least the capability to load spores of anthrax into weapons, although no country is known to have released the bacteria on a battlefield."[31]

While much information on global health threats is in the public domain, someone has to ferret it out of obscure UN documents and data bases or other archives (sometimes in difficult foreign languages) and collate it into a readable - ideally, an eye-catching - format that will attract and hold the attention of busy policy makers. Equally important, someone must ensure that the information addresses the current in-box demands on the most prominent desks scattered around Washington. The UN does not do this for Washington officialdom; the CDC and the Carter Center do not; the government's various hospitals do not; the Library of Congress does not; the Brookings Institution, RAND, the Heritage Foundation, the Aspen Institute, and the American Enterprise Institute do not. So when the information is needed, the intelligence community is expected to have it, and it must be accurate, timely and focused on the latest problem or crisis.

RESOURCES FOR PUBLIC HEALTH INTELLIGENCE

Despite all the hoopla over the New Intelligence Agenda, global health concerns have received only limited support. America's budget woes have resulted in significant draw downs of US intelligence personnel overseas, along with the closing of many installations, especially in Africa, where many of the worst infectious diseases germinate. The United States in the post-Cold War era has shifted from a condition of "global presence" (eyes and ears in every country) to "global reach," that is, a policy of mobilizing resources when necessary to "surge" collection capabilities against targets of imminent concern.

In this time of budget reductions (at least for human intelligence collection, if not for the ongoing infatuation with expensive surveillance satellites, none of which can discern the spread of an infection disease), health is a "tasking" priority far down the list of intelligence collection concerns for Washington decision makers. Nonetheless, by 1996 the CIA had established a Conflict Issues Division within the Intelligence Directorate's newly established office of Transnational Security and Technological Issues. Here a dozen analysts track health and humanitarian issues, from the spread of global diseases to the (sometimes related) flow of refugees.[32]

At times the open media will report accurately on global health issues, as when Reuters documented that hundreds of Rwandan Hutu refugees had died daily of cholera in eastern Zaire during the summer of 1994.[33] Often, though, foreign correspondents are not in the right place at the right time, or they may fail to focus on the health side of a story and its implications for US security interests. Then collection and analysis by intelligence agencies become all the more important.

The US Army Medical Research Institute for Infectious Diseases (USAMRIID) and the Armed Forces Medical Intelligence Center (USAFMIC) play significant roles in monitoring global health conditions that may impinge upon peacekeeping operations, humanitarian and rescue missions, and other US military operations abroad (either alone or in coalition with UN or NATO forces).[34] Their primary missions are to identify health threats to the warfighter. Their funding is modest, too, and frequently their integration into the intelligence process is inadequate - particularly in terms of tasking (collection targeting) and subsequent sharing of information for the production of community-wide ("all source") reports.

While efforts have been made to upgrade the intelligence community's attention to health intelligence, sometimes the left hand has been unaware of what the right hand is doing. This is a persistent problem facing the vast and loosely connected intelligence bureaucracy (the largest interagency cooperative venture in the government) spread out around Washington. In recognition of the more complicated nature of world affairs in the post-Cold War era, the community has expanded its concentration on global and multilateral issues, including health concerns. The government's premier entity for intelligence analysis is the National Intelligence Council (NIC), which is located at CIA Headquarters but staffed by "superanalysts" - called National Intelligence Officers (NIOs) - recruited from throughout the community, as well as from some selected universities and think tanks.

In 1993, the NIC created a new NIO position for global issues, with health-related topics folded into the portfolio of the woman selected to handle this oversized basket of responsibilities.[35] The NIC also has produced from time to time National Intelligence Estimates (NIEs - the community's major research reports and forecasts on selected world issues) which have a health focus.[36]

THE FUTURE OF PUBLIC HEALTH INTELLIGENCE

From a strategic perspective, health issues are - in our view - a less important focus for the intelligence community than traditional military, political and economic collection requirements. Foreign diseases, it is true, can infect American soldiers; but Russian missiles continue to have the capacity to annihilate our entire society (even if, for the moment, they may not be targeted in our direction). Moreover, a resumption of fighting in the Balkans could spread throughout Central Europe and once again engulf the Western powers in a global war. Terrorists continue their cowardly attacks on civilian and military targets. Political unrest in Mexico can produce additional waves of immigrants across the Rio Grande. International economic conditions can directly affect the living standards of Americans. These things are of more immediate concern to the US government. Still, health risks to American soldiers serving overseas can hardly be casually dismissed. Nor can one blithely push aside the other health concerns discussed in this study, even if limitations on available resources prohibit a full coverage of every possible risk to the health and well-being of Americans.

The need to keep public health intelligence in proper perspective, without ignoring its obvious importance, leads us to this central policy conclusion: in a time of government downsizing and budget reductions, it is vital to preserve the current levels of funding for health intelligence (as the Aspin-Brown Commission concluded as well, however elliptically).

We also believe (and on this point the Aspin-Brown Commission was silent) that without appreciable cost, some improvements can be made to provide better information to policy makers on global health risks to America's security interests. This will require cooperation among groups unaccustomed to working together or even being in the same room.

First, the CIA and the other intelligence agencies must take the health portfolio more seriously. The Directorate of Operations (DO - home of the CIA's case officers who recruit and handle agents overseas) should report more regularly and systematically from the field on country and regional health trends, which presently are neglected in the cable traffic sent back to CIA headquarters.[37] Case officers should pay closer attention to the spread of infectious diseases among foreign political and military elites.

The DO cannot cover the international health beat alone, however. Since the Federal Bureau of Investigation (FBI) is to have an increased presence overseas to fight international crime,[38] it should also be called upon to tap Bureau assets for information regarding global public health concerns, as well as the physical and mental status of foreign elites. This would represent an expansion of the FBI's traditional investigative mandate, yet only in the narrow sense of passing along to the CIA information on foreign health matters that have been picked up by Bureau assets abroad.

Second, the proper threshold for triggering collection on health matters - whether global, regional, national, group, or individual in focus - requires further refinement. The system is presently too ad hoc; the intelligence community has yet to work out explicit and systematic triggering criteria that would indicate when a health issue has reached the

level of national security significance, for example, by virtue of disease lethality, proximity to US interests, or communicability. As with every intelligence topic, analysts and managers throughout the intelligence community must redouble their efforts to learn what types of global health issues most concern policy makers. What is in the decision maker's in-box - right now - related to world health topics?

Further, the integration of clandestine reporting and open-source material on world health conditions is presently inadequate. Since a considerable amount of health data surfaces in the public domain, the policy maker's request for information may be satisfied quickly by way of the community's capacity for open-source data searches, without engaging in clandestine collection methods. In the case of certain public health threats, WHO and the CDC already serve as important centers for what the intelligence community would refer to as "indications and warning" (I&W), providing quick alerts on global health dangers. The intelligence community should monitor more closely the open publications of these and other health entities that have a global focus, turning to its own secret collection capabilities just for those topics that remain unreported (such as the health of specific foreign leaders, the presence of disease in potential battlefields, or the risk of biological weapons use).[39]

A basic I&W question is: how much warning is enough? Just as for a missile attack, the rapid dissemination of accurate information about global health threats - a kind of "viral telemetry" - is essential. Officials in the intelligence community responsible for tracking open-source information need to mine more effectively the data banks and eyewitness accounts of individuals who work on health-related missions abroad for non-governmental organizations and private volunteer organizations.

The community's relationship to private groups must be handled gingerly, though. As one FAS scientist has observed: "We are in communication with DoD [Department of Defense] officials and are, of course, aware of the value of disease surveillance data to the intelligence community; [however], we - and they - recognize that any overt involvement by DoD or intelligence [in the data-collection activities of these civilian groups] would kill the effort to monitor effectively."[40]

The intelligence community's health data bank is presently inadequate. The CIA's sophisticated in-house computer system charged with scanning the public-source literature (known as ROSE, for Rich Open Source Environment) fails to have among its machine-readable subscription lists many of the key specialized publications from private and international governmental organizations dealing with health and medical subjects. For very little investment, the ROSE system could be further enriched with open source disease data useful for both an early warning and full understanding of global health dangers.

Third, the intelligence community should shift some resources from collection against conventional military targets toward the more probable danger to the United States of a terrorist attack employing biological weapons. An inadequate number of human intelligence agents is targeted currently against foreign chemical-biological warfare

capabilities and intentions. Further, more research on antidotes and the preparation of nationwide defenses is necessary, with private industry, the Department of Defense, and the intelligence agencies working in tandem (as they have so well in satellite and reconnaissance aircraft development over the years). "Our ultimate goal," states a recent White House report, "is to foster the creation of a worldwide disease surveillance and response network."[41] This laudable objective warrants more resources to match the rhetoric.

Fourth, the tasking and analytic integration of clandestine health intelligence cries out for better coordination. Several federal agencies have given some attention to public health intelligence, but the cross-walks between them are few and far between. The FBI, the Federal Emergency Management Agency (FEMA), and the US Public Health Service, for example, have put together a crisis-management plan to cope with a chemical/ biological terrorist attack, but "there has been relatively little emphasis on devising practical measures for protecting public health in the event of such an attack."[42]

The current fragmentation of efforts could be alleviated by the creation of a Task Force on Global Disease Surveillance and Analysis, under the auspices of the Director of Central Intelligence (DCI). The Task Force might be expected to convene at least twice a year to review current world health issues and to determine how well the intelligence community has been sharing its responsibilities for collection, data analysis, and final product dissemination related to these issues. Members of the task force might well include:

the NIO for Global Issues (who would chair the panel and report directly to the DCI);

a representative from the CIA's Directorate of Operations with knowledge of clandestine collection methods related to public health intelligence;

a global-health analyst from the CIA's Directorate of Intelligence;

representatives from the National Security Agency and the Defense Intelligence Agency;

a representative from the Department of State;

a representative from the FBI;

a representative from the US Customs Service;

a representative from the Immigration and Naturalization Service;

a representative from both the AFMIC and the USAMRIID;

a representative from FEMA;

a representative from the US Public Health Service;

a physician/researcher from the CDC;

an academic medical expert with extensive international experience; and,

the NSC staff aide with responsibilities for global health issues.

One of the key issues for the Task Force to consider would be who needs to know what and when about potential disease threats, especially when the territory of the United States itself is threatened. That is, exactly who are the key potential consumers of this form of intelligence? The intelligence agencies must do a better job of informing policy makers about health dangers that have been uncovered by agents in the field, as well as what analytic reports are presently available on this subject.

As matters presently stand, often the wrong information is gathered because of inadequate communications between the consumers of intelligence (the policy makers) and its producers (the intelligence agencies). All too frequently in our research, we have come across evidence that one part of the government was not aware of what another related part is doing, even at high echelons. Recently, for instance, a senior NSC staffer had never met the key NIO dealing with global health and environmental issues, even though both had been in their respective positions for almost a year.

At the heart of successful intelligence support to decision makers on matters of global health - as for every other policy subject - lies the problem of dialogue. When dialogue exists, ideally with intelligence liaisons or analysts in attendance at the policy makers's morning staff meetings and afternoon coffee breaks, intelligence has a much better chance of meeting two of its most important obligations: relevance and timeliness.[43]

Further, while the United States already has procedures in place to deal with health threats when the warning comes from public sources, less adequately worked out is the manner in which clandestinely derived disease warnings should be disseminated to the civilian population in times of an emergency involving a health danger (such as a terrorist attack employing biological substances).

CONCLUSION

Foreign policy traditionalists will continue to focus on issues of balance-of-power with respect to the world's major military forces. This is a sensible concern, as it always has been since the advent of nation states. International affairs, though, have become more complicated in recent years. The Clinton administration's first Secretary of State, Warren Christopher, had it right when he warned in 1996 that the greatest future threat to America's national security is likely to come from a host of "transnational issues," among them environmental stress, population growth, narcotics flows, and infectious diseases.[44]

While continuing to monitor weapons systems that can cause us great harm, America's intelligence agencies must also expand their responsibilities to include the New Intelligence Agenda topics. President George Bush once referred to intelligence as

America's "first line of defense."[45] Clearly the first line of defense against the outbreak of infectious disease is global surveillance of health conditions. To be successful in this endeavor, the intelligence community must receive the necessary support - not from new monies in this time of economic belt-tightening, but through improved efficiencies along with the shifting of funds away from outdated Cold War activities and profligate spending on gold-plated collection platforms.

Endnotes

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1. A senior intelligence analyst with the Central Intelligence Agency (CIA), quoted in a declassified mimeograph statement presented to the US Senate Select Committee on Intelligence Activities (the Church Committee), dated 21 February 1974, and provided to the Committee in September 1975, cited in Loch K. Johnson, *America's Secret Power: The CIA in a Democratic Society* (New York: Oxford University Press, 1989), p. 80.

2. Interview by Loch K. Johnson with Robert M. Gates, Washington, DC, 28 March 1994.

3. See Loch K. Johnson and Kevin J. Scheid, "Spending for Spies: Intelligence Budgeting in the Aftermath of the Cold War," *Public Budgeting & Finance,* 17, no. 4 (Winter 1997), pp. 7-27; and Loch K. Johnson, "Reinventing the CIA: Strategic Intelligence and the End of the Cold War," in Randall B. Ripley and James M. Lindsay, eds., *U.S. Foreign Policy After the Cold War* (Pittsburgh, PA: University of Pittsburgh Press, 1997), pp. 132-59.

4. Intelligence Authorization Act for Fiscal year 1995, PL 103-359, Sec. 903(b)(2), signed by the President on 14 October 1994. The Commission began its work on 1 March 1995, and reported exactly one year later in a volume entitled *Preparing for the 21st Century: An Appraisal of US Intelligence*, Commission on the Roles and Capabilities of the United States Intelligence Community (Washington, DC: US Government Printing Office, 1 March 1996).

5. Among the most prominent were: John Hollister Hedley, *Checklist for the Future of Intelligence* (Washington, DC: Georgetown University, Institute for the Study of Diplomacy, 1995); Report of an Independent Task Force, *Making Intelligence Smarter: The Future of US Intelligence* (New York: Council on Foreign Relations, 1996); Staff Study, *IC21: Intelligence Community in the 21st Century*, Permanent Select Committee on Intelligence, US House of Representatives, 104th Cong. (Washington, DC: US Government Printing Office, 1996); *In From the Cold; The Report of the Twentieth Century Fund Task Force on the Future of US Intelligence* (Washington, DC: Brookings Institution, 1996); and *Modernizing Intelligence* (Fairfax, VA: National Institute for Public Policy, 1997).

6. See, for example, the skepticism expressed by some intelligence officials about using America's secret agencies to monitor pollutants and other ecological dangers from outside the United States, cited in Loch K. Johnson, "Smart Intelligence," *Foreign Policy,* 89 (Winter 1992-93), p. 59.

7. See, for example, Laurie Garrett, *The Coming Plague: Newly Emerging Diseases in a World Out of Balance* (New York: Farrar, Straus, and Giroux, 1994); Thomas Homer-Dixon, "On the Threshold: Environmental Changes as Acute Causes of Conflict," *International Security,* 16 (Fall 1991), pp. 76-116; Thomas Homer-Dixon, "Environmental Scarcity, Mass Violence, and the Limits to Ingenuity," *Current History,* 95 (November 1996), pp. 359-65; Thomas Homer-Dixon and Valerie Percival, *Environmental Security and Violent Conflict* (Toronto: University of Toronto, 1996); Dennis Pirages, "Microsecurity: Disease Organisms and Human Well-Being," *Washington Quarterly,* 18 (Fall 1995), pp. 5-12; C.F. Ronnfeldt, "Three Generations of Environment and Security Research," *Journal of Peace Research,* 34 (November 1997), pp. 473-82; Jessica T. Mathews, "Power Shift," *Foreign Affairs,* 76 (January-February 1997), pp. 50-66; Myron Weiner, ed., *International Migration and Security* (Boulder, CO: Westview, 1993).

8. Pirages, "Microsecurity: Disease Organisms and Human Well-Being," p. 11. Similarly, Col. Gerard Schumeyer, Director of the Armed Forces Medical Intelligence Center, writes that "the medical threat may be the most serious threat to future [US military] operational deployments." ["Medical Intelligence: Making a Difference," *American Intelligence Journal* 17 (1996), p. 11].

9. Quoted by Walter Pincus, "Military Espionage Cuts Eyed," *Washington Post,* 17 March 1995, p. A6.

10. "The National Security Science and Technology Strategy," National Science and Technology Council, Office of Science and Technology Policy, Executive Office of the President (Washington, DC: US Government Printing Office, 1996), p. 55.

11. Foreword, President Bill Clinton, ibid., unpaginated.

12. Diane C. Snyder, interview with senior officer in the CIA's Directorate of Science and Technology, Washington, DC, November 1994.

13. Ibid.

14. On the threat of global disease, see two works by Laurie Garrett, *The Coming Plague,* and *Microbes Versus Mankind: The Coming Plague* (New York: Foreign Policy Association, 1996); Robin Marantz Henig, *A Dancing Matrix: Voyages along the Viral Frontier* (New York: Knopf, 1993); and Schumeyer, "Medical Intelligence," pp. 11-15. A useful web site on this subject is: Program for Monitoring Emerging Diseases (ProMED), Federation of American Scientists, at http://www.fas.org/pub/genfas/promed.

15. See, for example, Susan E. Robertson, Barbara P. Hull, Oyewale Tornori, Okwo Bele, James W. LeDuc, and Karin Esteves, "Yellow Fever: A Decade of Reemergence," *Journal of the American Medical Association,* 276 (9 October 1996), pp. 1157-62.

16. World Health Organization, "Emerging and Other Communicable Diseases (EMC)," http://www.who.ch/programmes/emc/news.htm, 2 October 1996; see, also, Sharon Begley, "Commandos of Viral Combat," *Newsweek,* 125 (22 May 1995), pp. 48-54.

17. "The National Security Science and Technology Strategy," p. 43.

18. *Preparing for the 21st Century,* p. 26.

19. For a non-fictional account of this possibility, see "Proliferation of Weapons of Mass Destruction: Assessing the Risks," Office of Technological Assessment, OTA-ISC-559, US Congress (Washington, DC: US Government Printing Office, August 1993), p. 53. Two authorities have recently concluded that the likelihood of terrorists using biological agents as weapons is "probably increasing, as biological weapons proliferate and the stability of the Cold War balance of power passes" [Robert H. Kupperman and David M. Smith, "Coping with Biological Terrorism," in Brad Roberts, ed., *Biological Weapons: Weapons of the Future? XV* (Washington, DC: Center for Strategic and International Studies, 1993), p. 45]. An analyst in the Canadian Security Intelligence Service concludes similarly that "the likelihood of future terrorist use of CB [chemical-biological] agents is both real and growing" [Ron Purver, "Understanding Past Non-Use of C.B.W. by Terrorists," presentation to the Conference on "ChemBio Terrorism: Wave of the Future?", sponsored by the Chemical and Biological Arms Control Institute, Washington, DC, 29 April 1996]. See, also, Richard Betts, "Weapons of Mass Destruction," *Foreign Affairs,* 77 (January/February 1998), pp. 26-41, who calls for "standby programs for mass vaccinations and emergency treatment with antibiotics" to increase protection or recovery from biological terrorist attacks (p. 37); also, Jonathan B. Tucker, "Chemical/ Biological Terrorism: Coping with a New Threat," *Politics and the Life Sciences,* 15 (September 1996), pp. 167-85, and accompanying commentaries by a host of experts. On 22 May 1998, President Clinton announced a series of measures to improve US defenses against bioterrorism, including the stockpiling of antibiotics and vaccines [William J. Broad, "How Japan Germ Terror Alerted World," *New York Times,* 26 May 1998, p. A1].

20. For an example of an intelligence report that examines the tie between warfare and public health issues, see "CIA Report on Intelligence Related to Gulf War Illnesses," Central Intelligence Agency, Langley, Virginia, 24 September 1996, 9 pp.

21. On the US intelligence community's psychological profiling of foreign leaders (a micro- health intelligence problem, in contrast to the macro-health issues that are the primary focus of this article), see Tom Omestad, "Psychology and the CIA: Leaders on the Couch," *Foreign Policy,* 95 (Summer 1994), pp. 105-22. The health of an individual foreign leader is a far more narrow topic than the broader public health issues at the focus of this study; nevertheless, these individual health profiles are important to US officials

as a form of political-risk analysis and the same intelligence agencies are expected to produce both micro- and macro-health reports.

22. See the account by Richard Preston, *The Hot Zone* (New York: Random House, 1994).

23. "Another Sort of Asian Contagion," *The Economist,* 345 (20 December 1997/2 January 1998), p. 125.

24. Garrett, *Microbes Versus Mankind,* p. 40.

25. Patrick E. Tyler, "China Concedes that AIDS Virus Infected Common Blood Product," *New York Times,* 25 October 1996, p. A1. Garrett notes that many nations have deliberately tried to cover up their epidemics "for political and economic reasons" [*Microbes Versus Mankind,* p. 19].

26. See, for example, Michael Specter, "Deep in the Russian Soul, Lethal Darkness," *New York Times,* 6 June 1997, p. E1.

27. Andrew Price-Smith has written generally on the topic in "Infectious Disease and State Failure: Developing a New Security Paradigm," paper presented at the International Security Studies Section of the International Studies Association, Annual Meeting, 2 November 1996, Atlanta, Georgia.

28. This statistic is from an interview with hospital officials in Janeiro conducted by former President Jimmy Carter, "State of Human Rights Address," the Carter Center, Atlanta, Georgia, 1991, p. 5.

29. Loch K. Johnson interview with CIA analysts, Washington, DC, 26-27 September 1996.

30. Statement, Maurice Strong, secretary general of the United Nations Conference on Environment and Development, Brazil, 1992, reprinted in "40 Chernobyls Waiting to Happen," *New York Times,* 22 March 1992, p. E15.

31. Bradley Graham, "Military Chiefs Back Anthrax Inoculations," *Washington Post,* 2 October 1996, p. A1.

32. Loch K. Johnson interview with CIA analysts, Washington, DC, 26-27 September 1996.

33. See Reuters, "Zaire Fighting Endangers Refugees, UN Says," *New York Times,* 25 October 1996, p. A7; see, also, George A. Gellert, "International Migration and Control of Communicable Diseases," *Social Science and Medicine,* 37 (15 December 1993), pp. 1489-99.

34. Schumeyer, "Medical Intelligence."

35. Loch K. Johnson interview with the NIC director, Langley, Virginia, 31 January 1995.

36. Ibid.

37. Loch K. Johnson interviews with CIA analysts, Washington, DC, 26-27 September 1996.

38. See R. Jeffrey Smith and Thomas W. Lippman, "FBI Plans to Expand Overseas," *Washington Post*, 20 August 1996, p. A1.

39. As Schumeyer notes, medical indicators can provide early warning with respect to an adversary's military intentions, for example, by way of "unusual acquisition or movement of medical resources, scheduled blood drives, and implementation of vaccination programs" ["Medical Intelligence," p. 14].

40. Barbara Hatch Rosenberg, e-mail to Diane C. Snyder, 16 October 1996.

41. "The National Security Science and Technology Strategy," p. 54.

42. Tucker, "Chemical/Biological Terrorism," p. 177. For a plea to improve coordination of the broader US public health infrastructure in the fight against global infectious diseases, see Stephen S. Morse, "Controlling Infectious Diseases," *Technology Review*, 98 (October 1995), pp. 54-61.

43. See Loch K. Johnson, "Analysis for a New Age," *Intelligence and National Security*, 11 (October 1996), pp. 657-71. The third obligation of intelligence, and the most important, is truthfulness.

44. See Thomas W. Lippman, "Success Stories, Symbolism Draw Christopher to Africa," *Washington Post*, 8 October 1996, p. A12.

45. Remarks by President George Bush at CIA Headquarters, Langley, Virginia, 12 November 1991.