

### <u>Security Council Topic Background Guide</u> Topic 2: Preventing and Responding to a Pandemic<sup>1</sup>

30 September 2013

Whether challenges such as disease and environmental crises should be considered by the Security Council is an open question, for two reasons. First, the UN Charter does not define security. Second, the Charter gives the Security Council the ability to decide which security issues it will address.<sup>2</sup>

Historically, the Security Council (SC) has interpreted its responsibility for promoting "the establishment and maintenance of international peace and security" to pertain primarily to military matters. However as international relations scholar, G. John Ikenberry, explains, security is a broad and evolving concept. Today,

[b]oth the established and the rising great powers are threatened less by mass armies marching across borders than by transnational dangers, such as terrorism, climate change, and pandemic disease. What goes on in one country -- radicalism, carbon emissions, or public health failures -- can increasingly harm another country."<sup>3</sup>

Nevertheless, the SC has generally left human security issues such as disease to be treated by the General Assembly (GA) and its various subcommittees and specialized agencies, such as the Economic and Social Council (ECOSOC) and World Health Organization (WHO). According to the UN Charter, the GA is responsible for "promoting international co-operation in the economic, social, cultural, educational, and health fields."<sup>4</sup>

On April 29, 2009, at a Security Council meeting on children and armed conflict, UN Secretary-General Ban Ki-moon explained what the WHO was doing to keep the swine flu (HINI influenza virus) from turning into a pandemic and called for Security Council attention to the matter. According to Secretary Ban, "This really requires the whole international community's cooperation, and I count on the leadership and commitment of not only the Council member States, but the whole international community."<sup>5</sup>

In June 2009, WHO Director-General Margaret Chan declared the swine flu a pandemic.<sup>6</sup> This was the first declared influenza pandemic in 40 years.<sup>7</sup> A pandemic is an epidemic or sudden outbreak of a disease that

<sup>&</sup>lt;sup>1</sup> This background guide was written by Karen Ruth Adams, Montana Model UN Faculty Advisor, and Kedra Hildebrand (2009), with contributions by Kelsi N. Steele (2013). Copyright 2013 by Karen Ruth Adams.

<sup>&</sup>lt;sup>2</sup> UN Charter, Chapter IV, Article 12, available at <u>http://www.un.org/en/documents/charter/</u>

<sup>&</sup>lt;sup>3</sup> G. John Ikenberry, "The Future of the Liberal World Order," *Foreign Affairs* 90:3 (May/June 2011), pp. 56-68.

<sup>&</sup>lt;sup>4</sup> UN Charter, Chapter IV, Article 13 and Chapter V, Article 24.

<sup>&</sup>lt;sup>5</sup> UN News Centre, "UN notches up swine flu pandemic alert to level 5," 29 April 2009, available at <u>http://www.un.org/apps/news/story.asp?NewsID=30638</u>

<sup>&</sup>lt;sup>6</sup> Margaret Chan, "World now at the start of 2009 influenza pandemic," 11 June 2009, available at <u>http://www.who.int/mediacentre/news/statements/2009/h1n1\_pandemic\_phase6\_20090611/en/index.html</u>

<sup>&</sup>lt;sup>7</sup> Ban Ki-Moon, "Global Vulnerability Calls for Global Response, Secretary-General Stresses, Pointing to H1N1 Flu Pandemic While Addressing Health Forum," 15 June 2009, available at <u>http://www.un.org/News/Press/docs/2009/sgsm12309.doc.htm</u>.

becomes very widespread, affecting an entire region, a continent, or even the world.<sup>8</sup> Pandemics put severe strains on healthcare systems and weaken economies and security systems through the loss of workers in critical facilities such as electrical plants.<sup>9</sup> Without international assistance, developing countries are especially unprepared to respond to a pandemic within their borders and keep it from spreading to the rest of the world.

The main concern is that once a virulent virus infects one quarter of a population, even the developed world could not stop it, and the resulting death tolls would be extreme. For example, if a virus infected 25 percent of the global population and killed two percent of the population, death tolls would be more than 35 million worldwide.<sup>10</sup> These estimates are relatively conservative. For example, although the H5N1 (avian flu) virus infected only 400 people from 2003 to 2008, it killed more than 60 percent of those infected.<sup>11</sup>

According to medical researchers, during its pandemic phase from 2009-2010, H1N1 (swine flu) killed "between 151,700 and 575,400 people ... worldwide."<sup>12</sup> This was far fewer deaths than expected. Nevertheless, the number of deaths was very large and differed from those in seasonal flu outbreaks in that many deaths were in the summer months and among young people.<sup>13</sup>

Despite Secretary Ban's urging, the Security Council never discussed the H1N1 pandemic.<sup>14</sup> If it had done so, it would not have been the first time the Council considered a "new security" issue such as disease.<sup>15</sup> In 2000, the Security Council passed a resolution asking the UN Secretary-General to take steps to train and provide for the health needs of peacekeeping personnel in relation to HIV/AIDS.<sup>16</sup> Similarly, on April 17, 2007, the SC held its first-ever discussion of an environmental issue, climate change. Reaction to the discussion was mixed, with some states welcoming Security Council concern and calling for resolutions on the matter, and other states arguing that climate change was not a traditional security issue and should continue to be dealt with by the full-membership GA instead of by the limited-membership Council.<sup>17</sup>

<sup>9</sup> Bryan Walsh, "How to Prepare for a Pandemic," *Time Magazine*, v. 173 i. 19, (May 18, 2009), available online at <u>http://www.time.com/time/magazine/article/0,9171,1896728,00.html</u>

<sup>10</sup> In July 2013, the world population was about 7 billion. US Central Intelligence Agency, "World," *World Factbook*, available at <u>https://www.cia.gov/library/publications/the-world-factbook/geos/xx.html</u>

<sup>11</sup> US Department of State, "Avian and Pandemic Influenza: The Global Response," November 25, 2008, p. 4, available at <u>http://www.state.gov/documents/organization/111559.pdf</u>.

<sup>12</sup> US Center for Disease Control, "First Global Estimates of 2009 H1N1 Pandemic Mortality Released by CDC-Led Collaboration," 25 June 2012, <u>http://www.cdc.gov/flu/spotlights/pandemic-global-estimates.htm</u>

<sup>13</sup> World Health Organization, "What is Post-Pandemic?," 10 August 2010, <u>http://www.who.int/csr/disease/swineflu/frequently\_asked\_questions/post\_pandemic/en/index.html</u>

<sup>14</sup> United Nations Security Council, "Meeting Records," 2 July 2013 available at <u>http://www.un.org/en/sc/meetings/</u>.

<sup>15</sup> Jessica Tuchman Mathews, "Redefining Security," Foreign Affairs 68:2 (Spring 1989), pp. 162-177.

<sup>16</sup> "UN Security Council Resolution 1308, "The Responsibility of the Security Council in the Maintenance of International Peace and Security: HIV/AIDS and International Peace-keeping Operations," July 17, 2000, available at <u>http://data.unaids.org/pub/BaseDocument/2000/20000717\_un\_scresolution\_1308\_en.pdf</u>

<sup>17</sup> United Nations Department of Public Information, "Security Council Holds First-Ever Debate on Impact of Climate Change on Peace, Security, Hearing over 50 Speakers," Security Council 5663rd Meeting, April 17,2007, <u>http://www.un.org/News/Press/docs/2007/sc9000.doc.htm.</u> Associated Press, "UN Attacks Climate Change as Threat to Peace," April 17, 2007,

http://www.globalpolicy.org/socecon/envronmt/climate/2007/0417climatethreat.htm

<sup>&</sup>lt;sup>8</sup> Medicine Net, "Definition of Pandemic," 2009, available at <u>http://www.medterms.com/script/main/art.asp?articlekey=4751</u>

World War I killed 13 to 15 million people. Another 65 to 75 million people died in World War II. Still another 41 million people died in all of the international and civil wars and conflicts combined from 1945 to 2000.<sup>18</sup> In 1998, 54 million people died of infectious diseases.<sup>19</sup> The effects of a pandemic on populations and governments could be akin to the effects of a major war. Perhaps, then, it is time for the Security Council to broaden its approach to security and focus UN member state attention on the challenge of preventing and responding a pandemic.

#### History and Current Events

Any infectious disease could become a pandemic. However, most pandemics have been caused by viral diseases, such as influenza, which spread rapidly. Influenza is a virus that is in a constant state of mutation and evolution. An influenza virus contains only RNA, which is similar to DNA but is a single strand and is responsible for manufacturing proteins. The virus works by infecting healthy cells and using those cells to replicate. Once a virus has attacked a healthy cell, its chromosomes are copied and enter the bloodstream to attack more cells throughout the body. As the virus replicates, it can change by picking up genetic material in the cell. For example, a virus in a person could pick up human genetic material, while a virus in a chicken or pig could absorb avian or swine RNA.<sup>20</sup>

A virus virulent enough to cause a pandemic occurs when two different types of flu viruses "happen to get into an animal cell at the same time, swapping entire chromosomes to create 're-assorted' viruses."<sup>21</sup> For example, the swine flu (H1N1) virus of 2009 originated in a human, was combined in a pig, then passed back to a human. This explains the ease with which it passes from human to human. By contrast, during the avian flu outbreak of 2003-2009, the H5N1 virus passed from infected birds to humans but did not combine to pass from human to human.<sup>22</sup>

Within the past several decades, thirty previously unknown serious diseases have emerged, including HIV/AIDS, Ebola, Marburg fever, hepatitis C, SARS, and Hanta virus. In addition to these new concerns, older diseases -- including hepatitis B and C, measles, malaria, and tuberculosis -- are problematic for the global community.<sup>23</sup>

The spread of infectious diseases is affected by many factors, including the nature of the disease, the extent of human exposure (which is expected to increase with the warming temperatures associated with climate change),<sup>24</sup> and the extent of human immunity (which has been compromised by the overuse of antibiotics).

One of the dilemmas of pandemics is that actions taken to defend against threats (taking antibiotics) can have the unintended consequence of becoming threats themselves (antibiotic resistant strains).<sup>25</sup> In the US, fighting

<sup>18</sup> Milton Leitenberg, "Deaths in Wars and Conflicts in the 20th Century," Cornell University Peace Studies Program Occasional Paper #29, 3rd ed, 2006, http://www.cissm.umd.edu/papers/files/deathswarsconflictsjune52006.pdf

<sup>19</sup> Dan Caldwell and Robert Williams, Jr., *Seeking Security in an Insecure World* (Oxford: Rowman and Littlefield, 2006), p. 77.

<sup>20</sup>"The Path of a Pandemic," *Newsweek*, v. 153, i. 19/20, (May 11, 2009).

<sup>21</sup> "The Path of a Pandemic."

<sup>22</sup>"The Path of a Pandemic."

<sup>23</sup> Caldwell and Williams, Seeking Security in an Insecure World, p. 77.

<sup>&</sup>lt;sup>24</sup> Jessica Q. Chen, "Climate Change Reveals Disease as National Security Threat," *McClatchy*, January 10, 2011, available at <u>http://www.mcclatchydc.com/2011/01/10/106405/climate-change-reveals-disease.html#.UdHIk1MsKco#storylink=cpy</u>

drug-resistant infections costs up to 8 million additional patient hospital days and up to \$34 billion every year. In March 2012, an antibiotic-resistant bacteria strain emerged in India, which renders even the last-resort drugs obsolete, and it could bring about an era of unstoppable infections. Sonia Shah explains, "[t]o contain the bacteria, South Asian governments must quickly reform their public health practices and medical manufacturers must fast-track the development of new drugs."<sup>26</sup>

#### Options for Containment and Mitigation

Once a virulent disease has been identified, containment and mitigation measures are vital. Containment measures focus on limiting the spread of the outbreak to a specific geographical region. Japan's Narita airport screens passengers for infectious diseases consistently, not just during concerns about pandemics.<sup>27</sup> Mitigation measures limit the spread of the outbreak within containment barriers, as well as outside of them once the barrier has been breached. If containment fails, mitigation is the only option.

Containment and mitigation measures are similar. The most effective measures are to vaccinate people in the affected region to minimize the number of sick people in the region (mitigation) and to vaccinate people in other regions so the virus will not spread beyond the region (containment). But since viruses are constantly mutating, there is only a slim chance that effective vaccines will be immediately available. After the onset of an outbreak, it usually takes 4-6 months to have an effective vaccine.<sup>28</sup> Moreover, because the companies that currently produce vaccine can produce only about one billion doses of vaccine per year, there would not be enough to protect the entire world's population of 7.1 billion.<sup>29</sup>

As a result, non-pharmaceutical strategies for containment and mitigation are essential. Non-controversial measures governments can take include urging people to wash their hands and use masks; encouraging people to work from home and keep children home from school when sick; advising businesses such as theatres, museums, and restaurants to close; canceling sporting and other public events; and closing school systems and public offices.<sup>30</sup> Whether these measures are effective depends on many factors, including the virulence of the virus, the extent to which governments can warn people, and whether people have access to the resources such as masks and clean water they need to comply. In developing countries, neither effective communications nor access to needed resources can be assumed. In all countries, there is the additional question of whether people and organizations will modify their behavior as requested.

To overcome these difficulties, governments could take measures such as issuing and enforcing public health orders and monitoring and quarantining people in infected areas. In addition, states could close their borders and quarantine travelers from the infected area. But these measures are controversial because they may violate

<sup>&</sup>lt;sup>25</sup> Caldwell and Williams, *Seeking Security in an Insecure World*, p. 78.

<sup>&</sup>lt;sup>26</sup> Sonia Shah, "When Superbugs Attack: Antibiotic-resistant NDM-1 Is Undermining India's Medical Sector," *Foreign Affairs*, March 28, 2012, available at <u>http://www.foreignaffairs.com/articles/137358/sonia-shah/when-superbugs-attack</u>

<sup>&</sup>lt;sup>27</sup> Caldwell and Williams, Seeking Security in an Insecure World, p. 87.

<sup>&</sup>lt;sup>28</sup> Mary Ellen Schneider, "Disease Containment is Paramount in Pandemic Outbreak," *Family Practice News*, 37:4 (February 15, 2007), p. 18.

<sup>&</sup>lt;sup>29</sup> "Global Health: Preparing for the Worst," *Economist*, May 9, 2009, available at http://www.economist.com/science/displaystory.cfm?story\_id=13609361

<sup>&</sup>lt;sup>30</sup> Schneider, "Disease Containment is Paramount in Pandemic Outbreak." Donald McNeil, "WHO on the Global Swine Flu Outbreak: Containment is No Longer Feasible," *New York Times*, April 27, 2009, available online at <u>http://www.cleveland.com/nation/index.ssf/2009/04/who on flu outbreak containmen.html</u>

human rights such as the right to privacy and freedom of movement.<sup>31</sup> Furthermore, because of globalization these efforts may not even work to try to "geographically sequester" the infection.<sup>32</sup> In addition, closing borders would prevent the transfer of goods needed to stem a pandemic.<sup>33</sup> In 2004, the US National Intelligence Council "…concluded that while terrorism could slow globalization, a widespread pandemic could stop it altogether."<sup>34</sup>

In 2003, China, Hong Kong, and other parts of East Asia were strongly affected by the avian flu (H5N1). At a result, they implemented containment plans that consisted of killing chickens infected with the virus, quarantining infected individuals, and stockpiling vaccines. By 2009, Hong Kong had "20 million courses of Tamiflu [H5N1 vaccine] -- three times its population." In addition, it established procedures for transforming holiday camps on the borders to isolation wards to help the health care system cope with a sudden increase in patients.<sup>35</sup> Due to such measures in East Asia, the countries that have been most affected by H5N1 are those, like Cambodia, that have few resources and those, like Egypt, experiencing severe social and political dislocation.<sup>36</sup>

#### A Short History of Pandemics

Even the most vigilant containment and mitigation systems will not stop all viruses from reaching pandemic levels. Since 1900, there have been four pandemics. The first occurred in 1918 and is known as the Spanish influenza pandemic. It was catastrophic. Approximately 20 to 40 percent of the world population became sick, and 20 to 50 million people died. "Between September 1918 and April 1919, approximately 675,000 deaths from the flu occurred in the U.S. alone."<sup>37</sup> The most unusual thing about the Spanish flu was its ability to kill young adults between the ages of 20-50, the group in which the mortality rate from illness has historically been the lowest.

The second pandemic occurred in 1957 and is known as the Asian flu. The Asian flu was first identified in Asia. As in 1918, immunity to the particular strain was rare in people less than 65 years of age. But the Asian flu was quickly identified as a possible pandemic, and health officials were able to stock up on vaccines. The biggest struggle with this pandemic was its resurgence in 1958, in what is known as the "second wave" of infection, where thousands more people were infected. Overall, 69,800 Americans and two million people worldwide died in this pandemic.<sup>38</sup>

In 1968, a thirdpandemic was detected in Hong Kong and quickly spread around the world. Approximately one million people died worldwide (33,800 in the US), making it the mildest pandemic of the 20<sup>th</sup> century. Between

<sup>&</sup>lt;sup>31</sup> Schneider, "Disease Containment is Paramount in Pandemic Outbreak." The most widely-accepted statement of human rights is the Universal Declaration of Human Rights (1948), available at <a href="http://www.un.org/en/documents/udhr/">http://www.un.org/en/documents/udhr/</a>

<sup>&</sup>lt;sup>32</sup> Laurie Garrett, "The Return of Infectious Diseases," Foreign Affairs 75:1 (Jan./Feb. 1996), p. 66.

<sup>&</sup>lt;sup>33</sup> McNeil, "WHO on the Global Swine Flu Outbreak: Containment is No Longer Feasible."

<sup>&</sup>lt;sup>34</sup> Caldwell and Williams, Seeking Security in an Insecure World, p. 87.

<sup>&</sup>lt;sup>35</sup> Walsh, "How to Prepare for a Pandemic."

<sup>&</sup>lt;sup>36</sup> World Health Organization, "Cumulative number of confirmed human cases for avian influenza A(H5N1) reported to WHO, 2003-2013," 29 August 2013, http://www.who.int/influenza/human animal interface/EN GIP 20130829CumulativeNumberH5N1cases.pdf

<sup>&</sup>lt;sup>37</sup> U.S. Department of Health & Human Services, National Vaccine Program Office, "Pandemics and Pandemic Scares in the 20th Century," available at http://archive.hhs.gov/nvpo/pandemics/flu3.htm

<sup>&</sup>lt;sup>38</sup> U.S. Department of Health & Human Services, National Vaccine Program Office, "Pandemics and Pandemic Scares in the 20th Century."

1968 and 2008, there were four pandemic scares: the swine flu in 1976; the Russian flu in 1977; and the avian flu in 1997 and 2003. None of these escalated into pandemics.<sup>39</sup>

In 2009, the swine flu emerged once again. In June 2009, the World Health Organization (WHO) declared it pandemic. HINI travelled from human to human and affected all countries worldwide -- even those with strong public health systems. On August 10, 2010, the WHO declared the pandemic to be over, noting that the infection rate had been as high as 20-40% of the population in certain areas. According to WHO Director-General Margaret Chan, the world should not expect the next pandemic to be so mild. "Pandemics are unpredictable and prone to deliver surprises. No two pandemics are ever alike. This pandemic has turned out to be much more fortunate than what we feared a little over a year ago."<sup>40</sup>

Due to the ease of worldwide travel, the H1N1 pandemic spread quickly, making both containment and mitigation difficult, and threatening far-reaching economic and political effects. If the economy in one country had come to a halt as workers became ill, the economies of other countries would have be affected, making it difficult to amass the resources needed to stop the pandemic from spreading.<sup>41</sup> This could have caused international political tensions as well as domestic political unrest.

In 2012, a new illness with the potential to become a pandemic was discovered in Saudi Arabia. Called Middle Eastern respiratory syndrome (MERS), it is related to severe acute respiratory syndrome (SARS), which in 2003, infected at least 8,000 people and killed 800. Between September 2012 and August 2013, MERS infected 108 people from at least eight countries and killed 50 of them.<sup>42</sup> MERS is problematic because "[s]cientists do not know where it came from, where the virus exists in nature, why it has appeared now, how people are being exposed to it, or whether it is becoming more contagious and could erupt into a much larger outbreak, as SARS did."<sup>43</sup>

#### The Potential for Pandemics Caused by Biological Weapons

Biological weapons deliver living organisms, such as bacteria and viruses, to inflict disease and incapacitate or kill target populations.<sup>44</sup> Most biological agents work through direct exposure to the agent itself. For example, spores from the anthrax bacteria found in cows and other herd animals sicken only those who ingest, inhale, or touch the spores. Biological toxins such as botulism and ricin also work in this way. Other biological agents such as smallpox and the influenza virus are contagious and can spread from one person to another, creating the potential for pandemics.

Biological weapons are known as "unconventional weapons" because, instead of targeting other weapons, they target entire populations or geographic areas. Biological weapons may also be "weapons of mass destruction" (WMD). In other words, their destructive effects may occur so quickly and so extensively that it may not be

<sup>40</sup> World Health Organization, "H1N1 in Post-pandemic Period," 10 August 2010, available at <u>http://www.who.int/mediacentre/news/statements/2010/h1n1\_vpc\_20100810/en/index.html</u>.

<sup>41</sup> Michael Osterholm, "Unprepared for a Pandemic: H1N1 Avian Influenza Virus," *Foreign Affairs*, 86:2 (March-April 2007).

<sup>42</sup> World Health Organization, "Middle East respiratory syndrome coronavirus (MERS-CoV) – update," 30 August 2013, <u>http://www.who.int/csr/don/2013\_08\_30/en/index.html</u>.

<sup>43</sup> Denise Grady, "Solving a Viral Mystery: Experts Scramble to Trace the Emergence of MERS," *New York Times*, July 1, 2013, accessed at <u>http://www.nytimes.com/2013/07/02/health/experts-scramble-to-trace-the-emergence-of-mers.html?hp& r=1&</u>.

<sup>&</sup>lt;sup>39</sup> U.S. Department of Health & Human Services, National Vaccine Program Office, "Pandemics and Pandemic Scares in the 20th Century."

<sup>&</sup>lt;sup>44</sup> Federation of American Scientists, "Introduction to Biological Weapons," <u>http://www.fas.org/programs/ssp/bio/resource/introtobw.html</u>

possible to protect people by warning them not to drink infected water, providing antibiotic or antiviral drugs, or evacuating people to uncontaminated areas.<sup>45</sup>

It is often said that nuclear, biological, chemical, and radiological weapons are WMD. In fact, however, only nuclear and biological weapons are likely to have truly mass effects. We know that nuclear weapons are WMD. According to physicists, a one kiloton (kt) nuclear device exploded at ground-level in Manhattan would kill approximately 210,000 people. About 30,000 would die immediately from the blast or burns, and the remainder would die from radiation in a week or so. Contemporary US and Russian strategic nuclear weapons are approximately 150 kt. The uranium bomb exploded by the US over the Japanese city of Hiroshima in 1945 was 13 kt. According to the US Strategic Bombing Survey, that bomb killed 30 percent of the city's population of 245,000 and seriously injured another 30 percent.<sup>46</sup>

Biological weapons are less reliable than nuclear weapons. Because they use living organisms such as bacteria and viruses, which must be kept alive to kill or incapacitate people, it is hard to control their potency and distribution. Moreover, because many biological agents work only upon direct contact and because many biological agents can be countered by vaccines and drugs, it is possible to protect people from exposure. But if contagious biological agents for which were are no vaccines, such as glanders (*Burkholderia mallei*), could be kept alive in great numbers, dispersed widely, and allowed to incubate in unsuspecting populations, they could have mass effects. Unlike nuclear weapons, they would not have immediate effects. Yet if a contagious disease gained momentum, it could concentrate destruction in ways that would be difficult to contain and mitigate.<sup>47</sup>

In 1977, the WHO declared smallpox to be eradicated due to global vaccine programs. However, the US and Soviet Union have maintained smallpox samples to defend against a biological attack. Some fear that terrorists will obtain a smallpox strain and use it in a terrorist attack to deliberately create a pandemic. A smallpox attack could be especially problematic because it has a 10-14 day incubation period. Thus, an infected person could travel around the globe spreading the infection without even showing any symptoms. Only 10 percent of the global population has been vaccinated for smallpox, and there is not currently enough vaccine to vaccinate everyone. Manufacturing and stockpiling the vaccine would be one way to plan to respond to a potential bioterrorist threat.<sup>48</sup>

#### Previous Committee Work on This Topic

The World Health Organization (WHO) is a specialized agency in the United Nations system. Created on April 7, 1948, it is the organization responsible for providing "leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends."<sup>49</sup> WHO is administered by the World Health Assembly, which is made up of representatives from WHO's 194 member states. WHO reports to the UN General Assembly through ECOSOC.<sup>50</sup>

<sup>&</sup>lt;sup>45</sup> Karen Ruth Adams, "Weapons of Mass Destruction," *International Encyclopedia of Political Science* (New York: CQ Press, 2010).

<sup>&</sup>lt;sup>46</sup> Adams, "Weapons of Mass Destruction."

<sup>&</sup>lt;sup>47</sup> Adams, "Weapons of Mass Destruction."

<sup>&</sup>lt;sup>48</sup> Caldwell and Williams, *Seeking Security in an Insecure World*, pp. 77, 80, and 87.

<sup>&</sup>lt;sup>49</sup> World Health Organization, "About WHO," World Health Organization website, available at <u>http://www.who.int/about/en/</u>

<sup>&</sup>lt;sup>50</sup> World Health Organization, "Governance of WHO," World Health Organization website, available at <u>http://www.who.int/about/governance/en/index.html</u> See also the WHO Constitution at <u>http://www.who.int/governance/eb/who\_constitution\_en.pdf</u>

In 2007, WHO strengthened and improved its Global Influenza Surveillance Network and urged countries to share risk assessments and develop vaccines.<sup>51</sup> During the swine flu outbreak of 2009, WHO posted regular situation updates on its website and worked with governments and pharmaceutical companies to develop and distribute HINI influenza vaccines and alert the public.<sup>52</sup> According to WHO, 28 of the 10,000 virus specimens tested to date have been resistant to the antiviral drug oseltamivir. None have been resistant to the antiviral zanamivir.<sup>53</sup> As of September 24, 2009, "Regulatory authorities have licensed pandemic vaccines in Australia, China and the United States of America, soon to be followed by Japan and several countries in Europe."<sup>54</sup>

In 2005 and 2006, ECOSOC held meetings to discuss ways of supporting international efforts to stem the spread of the avian flu. In 2006, the committee agreed to assess the effectiveness of international efforts to improve pandemic response.<sup>55</sup>

In 2007, the United Nations Office for the Coordination of Human Affairs created the Pandemic Influenza Contingency website to give directions to UN employees and others about what to do and where to go when a pandemic occurs. It includes information for countries that have no pandemic response plans. The data for the UN website is taken from existing UN and national plans for preparing for an influenza pandemic.<sup>56</sup>

In July 2009, WHO Director-General Chan told UN member states at the ECOSOC High-Level Segment that the swine flu pandemic would have a "devastating" effect in the developing world. Chan asked, "When will the world finally see what most of us in public health regard as self-evident? It is this. A focus on health as a worthy pursuit for its own sake is the surest route to that moral dimension that is so sadly lacking in international systems of governance. It is the surest route to a value system that puts the welfare of humanity at its heart."<sup>57</sup>

There has not been a "Phase 6 Global Pandemic" warning from the WHO since the outbreak of the swine flu in 2009.<sup>58</sup> The WHO was able to eliminate Smallpox's natural infectious-disease threat through a coordinated campaign between states, IGOs, and NGOs, a natural starting point to confronting other potential pandemics. Unfortunately, the infrastructure to eradicate smallpox ended with the disease. Thus, "[w]hat is needed is a comprehensive, integrated approach that focuses on multiple infectious-disease threats rather than isolating only one or a few."<sup>59</sup>

<sup>55</sup> UN Economic and Social Council, "ECOSOC 2006: Coordination Segment Second Special Event on Avian Flu," July 10, 2006, available at

http://www.un.org/en/ecosoc/meetings/2006/cs2006/06%20CS%20background%202nd%20special%20event%20on %20Avian%20Flu.pdf

<sup>56</sup> UN Office for the Coordination of Humanitarian Affairs (OCHA), "United Nations Pandemic Influenza Contingency," 2007-2009, available at <u>http://www.un.org/influenza/unsic08.pdf</u>

<sup>57</sup> Margaret Chan, "Focus on health is the key to welfare of humanity," 6 July 2009, available at <u>http://www.who.int/dg/speeches/2009/health\_focus\_20090706/en/</u>

<sup>58</sup> World Health Organization Global Alert Resonse, "Disease Outbreak News (DONs)," 1 July 2013, available at <u>http://www.who.int/dg/speeches/2009/health\_focus\_20090706/en/</u>.

<sup>&</sup>lt;sup>51</sup> US Department of State, "Avian and Pandemic Influenza: The Global Response."

<sup>&</sup>lt;sup>52</sup> World Health Organization, "Pandemic (H1N1) 2009," available at <u>http://www.who.int/csr/disease/swineflu/en/</u>

<sup>&</sup>lt;sup>53</sup> World Health Organization, "Pandemic (H1N1) 2009 - update 68," WHO Situation Update page, <u>http://www.who.int/csr/disease/swineflu/updates/en/index.html</u>

<sup>&</sup>lt;sup>54</sup> World Health Organization, "Pandemic influenza vaccines: current status," <u>http://www.who.int/csr/disease/swineflu/notes/pandemic\_influenza\_vaccines\_20090924/en/index.html</u>

<sup>&</sup>lt;sup>59</sup> Caldwell and Williams, Seeking Security in an Insecure World, p. 84.

Several researchers are concerned by the lack of financial support to respond to future pandemics. "In 2011, after a yearlong consultation with member states, WHO Director-General Chan described the agency as overextended and unable to respond with speed and agility to today's global health challenges."<sup>60</sup>

The 2008 global financial crises reduced spending on global health programs, and increased the vulnerability for a pandemic. "Donor support to global health from all sources combined increased by roughly ten percent annually from 2002 to 2008. That growth began to slow in 2009 and fell to four percent in 2010."<sup>61</sup> Funding decreased even more in 2011 and 2012. Furthermore, the WHO is primarily funded through voluntary contributions, and its budget has been reduced. It now faces problems prioritizing whether to prioritize non-communicable diseases (NCDs), such as cardiovascular disease and cancer, or communicable diseases that could cause pandemics.<sup>62</sup>

#### Conclusion

The Nobel Prize-winning geneticist Joshua Lederberg declared, "The world is just one village. Our tolerance of disease in any place is at our own peril."<sup>63</sup> Governments and international organizations worldwide are trying to minimize effects of future pandemics. Is it time for the Security Council to take action as well?

In researching your country's position on this issue, consider the following questions:

- How has your country been affected by past pandemics and current disease outbreaks?
- How has your country responded thus far? Does it have a pandemic plan? Does it have the resources to respond effectively?
- What more can your country do to contain and mitigate the spread of potential pandemics, both within its borders and around the world?
- Are pandemics a threat to international peace and security? Why or why not? If so, what can and should be done to reduce the threat?
- What can and should the Security Council do to prevent, contain, and mitigate the human and international security effects of future pandemics?

#### **Recommended Reading**

Adams, Karen Ruth and Kedra Hildebrand. "Strengthening and Enforcing the Convention on Biological Weapons." General Assembly First Committee Topic Background Guide. Montana Model UN High School Conference. 14 September 2012. At <u>http://www.cas.umt.edu/mun/documents/2012%20guides/GA-1%2012%20topic%20Biological%20Weapons%20final.pdf</u>

This Model UN background guide explains the history and challenges of biological weapons, as well as international treaties and other efforts to limit their use.

<sup>&</sup>lt;sup>60</sup> Devi Sridhar, Lawrence O. Gostin, and Derek Yach, "Healthy Governance: How the WHO Can Regain Its Relevance," May 24, 2012, available at <u>http://www.foreignaffairs.com/articles/137662/by-devi-sridhar-lawrence-o-gostin-and-derek-yach/healthy-governance</u>.

<sup>&</sup>lt;sup>61</sup> Laurie Garrett, "Money or Die: A Watershed Moment for Global Public Health," *Foreign Affairs online*, 6 March 2012, available at <u>http://www.foreignaffairs.com/articles/137312/laurie-garrett/money-or-die</u>.

<sup>&</sup>lt;sup>62</sup> Sridhar, Gostin, and Yach, "Healthy Governance: How the WHO Can Regain Its Relevance;" and WHO, "Noncommunicable Diseases," March 2013, accessed at <u>http://www.who.int/mediacentre/factsheets/fs355/en/</u>.

<sup>&</sup>lt;sup>63</sup> Joshua Lederberg as quoted by Michael Gottlieb, "The Future of an Epidemic," *New York Times*, June 5, 2001, A23.

Chan, Margaret. "World now at the start of 2009 influenza pandemic." 11 June 2009. Available at <u>http://www.who.int/mediacentre/news/statements/2009/h1n1\_pandemic\_phase6\_20090611/en/index.html</u>

In this speech, the Director-General of WHO explained why the 2009 swine flu outbreak was a pandemic, how it could have spread, and what effects it could have had on populations worldwide.

Garrett, Laurie. "Money or Die: A Watershed Moment for Global Public Health." *Foreign Affairs online*. 6 March 2012. Available at <u>http://www.foreignaffairs.com/articles/137312/laurie-garrett/money-or-die</u>.

Garrett is an expert on global health. In this article, she discusses the potential consequences of failing to finance global health.

Grady, Denise. "Solving a Viral Mystery: Experts Scramble to Trace the Emergence of MERS." *New York Times*. Available at <u>http://www.nytimes.com/2013/07/02/health/experts-scramble-to-trace-the-emergence-of-mers.html?hp& r=1&</u>.

This article explains the pandemic potential of MERS.

Mathews, Jessica Tuchman. "Redefining Security." *Foreign Affairs* 68:2, Spring 1989, pp. 162-177. Available through Infotrac High School Reference.

In this article, the president of the Carnegie Endowment for International Peace explains why the environment and disease are national and international security issues.

Osterholm, Michael. "Unprepared for a Pandemic: H1N1 Avian Influenza Virus." *Foreign Affairs.* v. 86, i. 2. (March-April 2007). Available through Infotrac High School Reference.

This article provides an explanation of what is at stake for the world when a pandemic occurs and what options are available to governments to help minimize the destruction.

Shah, Sonia. "When Superbugs Attack: Antibiotic-resistant NDM-1 Is Undermining India's Medical Sector." Foreign Affairs Online, March 28, 2012. Available at http://www.foreignaffairs.com/articles/137358/sonia-shah/when-superbugs-attack

This article discusses "superbugs" and their ability to spread beyond borders.

Sridhar, Devi Lawrence O. Gostin, and Derek Yach. "Healthy Governance: How the WHO Can Regain Its Relevance." *Foreign Affairs online*. 24 March 2012. Available at <u>http://www.foreignaffairs.com/articles/137662/by-devi-sridhar-lawrence-o-gostin-and-derek-yach/healthy-governance?page=show</u>.

This article discusses the challenges the WHO is currently facing, and what it needed to maintain its effectiveness.

US Department of Health and Human Services, "Flu: For Professionals: Community Planning," http://www.flu.gov/planning-preparedness/hospital/index.html#

This is a good example of a national pandemic plan.

World Health Organization, "Infectious Diseases." Available at http://www.who.int/topics/infectious\_diseases/en/

This WHO site is the best place to learn about the extent and effects of infectious disease outbreaks.