

Recommendations for the U.S. Arctic Council Chairmanship

Enhancing Policy Focus on Arctic Health and Well-Being



AUTHORS

Heather A. Conley
Caroline Rohloff

A Report of the CSIS Global Health Policy Center

APRIL 2015

CSIS | CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

Recommendations for the U.S. Arctic Council Chairmanship

Enhancing Policy Focus on Arctic Health and Well-Being

AUTHORS

Heather A. Conley
Caroline Rohloff

April 2015

A Report of the CSIS Global Health Policy Center

About CSIS

For over 50 years, the Center for Strategic and International Studies (CSIS) has worked to develop solutions to the world's greatest policy challenges. Today, CSIS scholars are providing strategic insights and bipartisan policy solutions to help decisionmakers chart a course toward a better world.

CSIS is a nonprofit organization headquartered in Washington, D.C. The Center's 220 full-time staff and large network of affiliated scholars conduct research and analysis and develop policy initiatives that look into the future and anticipate change.

Founded at the height of the Cold War by David M. Abshire and Admiral Arleigh Burke, CSIS was dedicated to finding ways to sustain American prominence and prosperity as a force for good in the world. Since 1962, CSIS has become one of the world's preeminent international institutions focused on defense and security; regional stability; and transnational challenges ranging from energy and climate to global health and economic integration.

Former U.S. senator Sam Nunn has chaired the CSIS Board of Trustees since 1999. Former deputy secretary of defense John J. Hamre became the Center's president and chief executive officer in 2000.

CSIS does not take specific policy positions; accordingly, all views expressed herein should be understood to be solely those of the author(s).

Acknowledgments

This report is made possible by the generous support of the Bill & Melinda Gates Foundation.

© 2015 by the Center for Strategic and International Studies. All rights reserved.

Recommendations for the U.S. Arctic Council Chairmanship

Enhancing Policy Focus on Arctic Health and Well-Being

Heather A. Conley and Caroline Rohloff¹

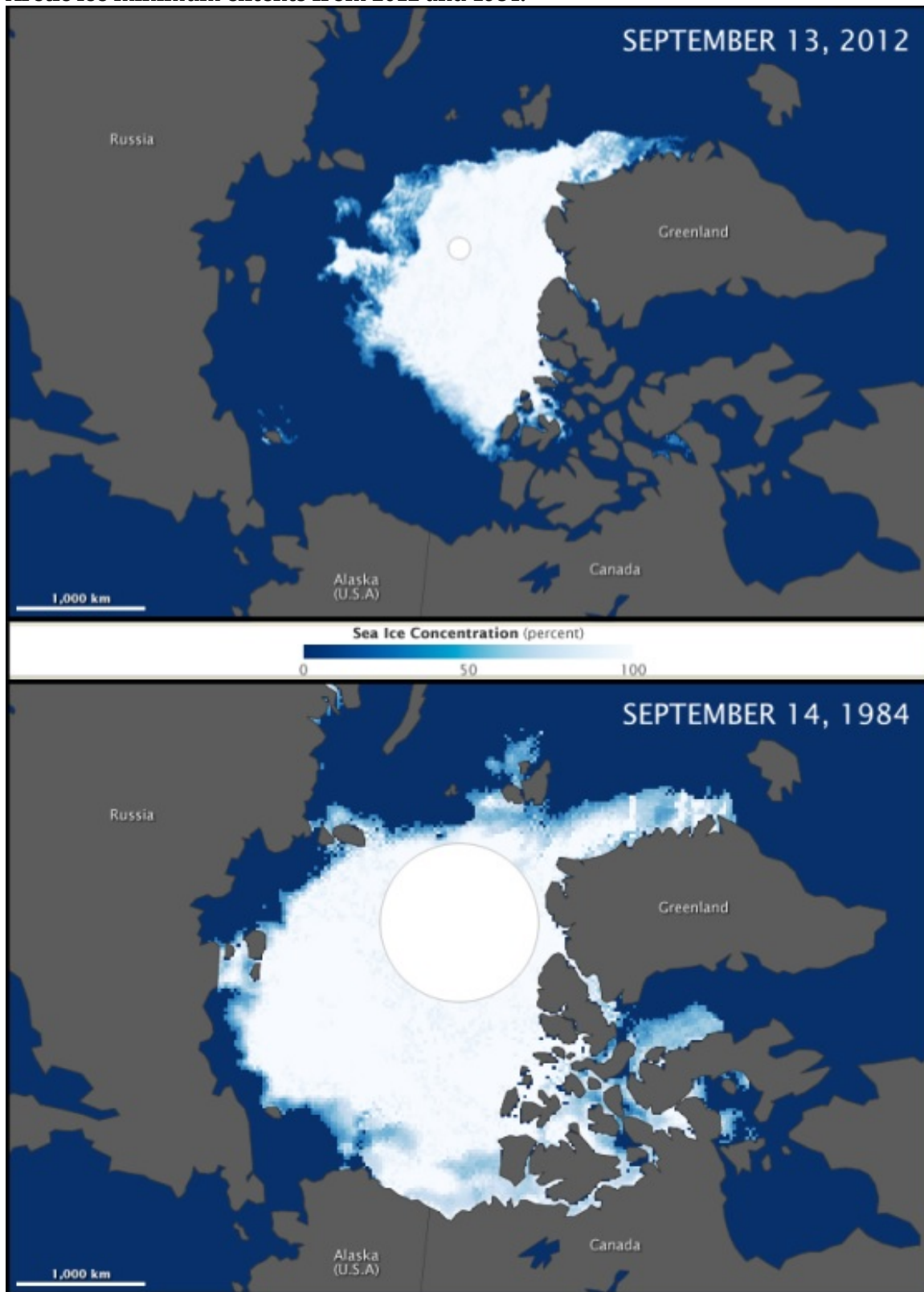
The Arctic region—a semi-frozen ocean surrounded by land—is home to 4 million people. The Arctic Council, an intergovernmental forum to discuss Arctic issues, is a unique forum that brings governments and representatives from the region’s indigenous communities together to discuss environmental protection and sustainable development in the Arctic. Arctic peoples—their health, food security, environmental sustainability, resilience, and economic well-being—remain at the center of Arctic policymaking. The United States is an Arctic nation by virtue of Alaska. And when the United States speaks about Arctic issues, it is speaking about the health and economic well-being of over 736,000 Alaskans.

Climate change is having a particularly deleterious effect on the health and well-being of the people who live in the Arctic, particularly indigenous populations. Food insecurity has become a challenge as climate change has altered traditional hunting and subsistence patterns. Environmental contaminants such as mercury and other heavy metals, PCBs, DDT, and dioxins have infiltrated Arctic food webs and water supplies. Indigenous communities have had to relocate their villages due to coastal erosion and permafrost thaw. Safe and reliable water supply and appropriate sanitation systems are frequently a challenge. Suicide rates, particularly among young indigenous populations, are high. Remote and sparsely populated villages lack adequate health care and face limited medical resources.

It is for these reasons that, when the United States assumes the chairmanship of the Arctic Council in April 2015, one of its priorities will be to enhance the living and health conditions of the people of the North by focusing on mental wellness, increasing access to clean water and improved sanitation facilities, and transitioning from expensive diesel heating fuel to renewable energy sources. These goals are consistent with the previous Canadian Arctic Council chairmanship’s (2013–2015)

¹ Heather A. Conley is senior vice president for Europe, Eurasia, and the Arctic at CSIS. Caroline Rohloff is a research associate with the Europe Program at CSIS.

Arctic ice minimum extents from 2012 and 1984.



Source: NASA Earth Observatory, http://en.wikipedia.org/wiki/Arctic_ice_pack#mediaviewer/File:Arctic_Sea_Ice_Minimum_Comparison.png.

theme of “Development of the North *for* the people of the North and *by* the people of the North.”

An Overview of Arctic Health and Well-Being

In spite of the harsh environment and the extreme remoteness of many Arctic communities, basic standards of health are in place with sanitation available for 60 percent of the Arctic population and water available for 82 percent.² Life expectancy has also improved significantly over the past few decades. In 1950, the life expectancy at birth for an Alaska Native was 47 years, whereas the U.S. national average was 66 years. By 2000, the life expectancy had increased to 69.5 years, a growth of over 22 years.³ Much of the improvement in life expectancy can be attributed to the implementation of health prevention activities that have significantly reduced morbidity and mortality rates from infectious diseases. For instance, in 1950, infections accounted for 47 percent of deaths among Alaska Natives but by 1990 that rate had dropped to 1.2 percent.⁴ The development and expansion of infrastructure, such as sewage disposal and safe water supplies, have also accounted for the significant health improvement in Arctic populations.

While Arctic health conditions have improved significantly over the past several decades, the cost of health care in most Arctic communities remains higher than the national average. For instance, in Canada’s Nunavut territory, health care expenditures per capita are 2.3 times higher than the national Canadian average, and expenditures in some of Russia’s northern autonomous okrugs (regions) are 4 to 8 times the national average.⁵ However, for nearly all Arctic regions, health expenditures per capita have decreased from 2000 to 2009. In Alaska, for instance, per capita total health expenditures decreased from \$9,513 in 2000 to \$6,622 in 2009.⁶

Arctic Human Development Report I

The first Arctic Human Development Report, released in 2004, provided a comprehensive assessment of human conditions in the Arctic region and outlined a framework of priorities for the Arctic Council’s Sustainable Development Working Group (SDWG), one of six working groups that performs assessments, produces studies, and conducts the main body of work within the Arctic Council. The 2004

² There are limits to Arctic health statistics since each nation has its own definitions of health and well-being, as well as means for collecting data, and Arctic nations generally do not delineate their “Arctic” regions as places where data is collected separately.

³ Alan J. Parkinson, “Arctic Human Health Initiative,” *Circumpolar Health Supplements*, no. 6 (2010), 9, http://www.circumpolarhealthjournal.net/public/journals/32/chs/CHS_2010_6.pdf.

⁴ *Ibid.*, 9.

⁵ “Data Brief 2: Health Expenditures,” Circumpolar Health Observatory, March 1, 2011, <http://circhob.circumpolarhealth.org/data-brief-2-health-expenditures/>.

⁶ “Visualizer Set III,” Circumpolar Health Observatory, 2010, <http://circhob.circumpolarhealth.org/visualizer-iii/>.

report highlights three major trends in Arctic health and well-being, reflected in increasing:

- (1) problems with mental health and violence in many circumpolar communities;
- (2) importance of community-based participatory health research; and
- (3) use of new technology and how this can be utilized to address health concerns in the Arctic.⁷

The report found that rates of completed suicide among the subpopulation in the North are much higher than national averages.⁸ A recent epidemiological study also found that with every five degrees of increased northern latitude, suicide rates increase by 18 percent. However, there are variations in suicide rates among Arctic nations. For instance, there is no discernible difference between Saami—Arctic indigenous people of Scandinavian descent—and Norwegian youth concerning suicidal thoughts and attempts. In Russia, on the other hand, males in the northwest commit suicide at a higher rate than males in Scandinavia.⁹ Suicide rates have consistently been twice as high in Alaska as the national average from 1990 to 2005,¹⁰ and in 2004, “suicide was the fifth leading cause of death in Alaska, and the second leading cause of death under age 50.”¹¹ Moreover, the highest rates of suicide occur between the ages of 20 and 29, in comparison to the national average with the highest rates occurring over age 80.¹² For Alaska Natives, the rates of suicide have increased 500 percent since 1960, with rates 4 times higher among 10- to 19-year-old Alaska Natives than their non-Native peers.¹³ In Alaska, the high rates of suicide among young men have largely been associated with feelings of isolation and economic frustration. These young men cannot see a future for themselves as traditional hunters or contributors to their community nor do they feel they fit into existing employment structures.

Changes in living conditions in the Arctic reflect the economic shift away from subsistence hunting and gathering to a cash-based economy. These changes have had a positive effect on the physical health of Arctic communities by providing a more stable food supply, improving housing conditions, and reducing morbidity and

⁷ Parkinson, “Arctic Human Health Initiative,” 16.

⁸ Carl M. Hild and Vigdis Stordahl, “Human Health and Well-being,” *Arctic Human Development Report*, 2004, 157, http://svs.is/images/pdf_files/ahdr/English_version/AHDR_first_12pages.pdf.

⁹ Ibid.

¹⁰ James Allen, Marya Levintova, and Gerald Mohatt, “Suicide and alcohol-related disorders in the U.S. Arctic: boosting research to address a primary determinant of health disparities,” *International Journal of Circumpolar Health*, 70, no. 5 (2011), 474.

¹¹ Marya Levintova, Warren Zapol, and N. Engmann, eds., “Behavioral and Mental Health Research in the Arctic: Strategy Setting Meeting,” *Circumpolar Health Supplements*, no. 5 (2012), 32.

¹² Allen, Levintova, and Mohatt, “Suicide and alcohol-related disorders in the U.S. Arctic,” 475.

¹³ Ibid., 476.

mortality from infectious diseases. However, the transition away from traditional subsistence hunting, as well as societal changes brought on by modernization and access to Western goods, have had a negative effect on the physical health of Arctic communities, and they are experiencing an increase in the prevalence of chronic diseases such as diabetes, obesity, and ischemic heart diseases.¹⁴ There has also been a strong negative impact on mental well-being as increased incidents of child abuse, substance abuse, suicide, and domestic violence have also been associated with rapid cultural change and an erosion of traditional knowledge and cultural identity lost to modernization. While more research is required, it seems likely that those who are most strongly rooted to a traditional lifestyle and subsistence living are the most vulnerable to the effects of climate change.

Studies have also found alcohol abuse to be closely linked with high rates of suicide in the circumpolar region. A study conducted by Patchwork Barents found that Finnish residents in the northernmost region of Lapland consumed almost 30 percent more alcohol than the national average and in northern Russia the average person consumes between 17.2 liters and 25.8 liters, while the national average of alcohol consumption is 15.6 liters.¹⁵ In Alaska, 75 percent of suicides that had toxicology examinations were positive for alcohol and/or drug use.¹⁶ From 2000 to 2007, the overall alcohol consumption in Alaska was 1.2 times higher than the national average and rates of binge drinking, particularly among high school youth, was also higher.¹⁷

The result of such high alcohol consumption is increased homicide and suicide rates in these northern regions and fetal alcohol syndrome (FAS) in children. While the rate of FAS births among Native populations in Alaska dropped from roughly 20 per 10,000 births in 1996 to 13.5 per 10,000 births in 2002, the prevalence of FAS remains higher among Alaska Natives in comparison to the general population.¹⁸ In 2010, the number of suicides per 100,000 inhabitants in northwest Russia was 32, and in northern Finland, 22. In Norway and Sweden, however, the number of suicides per 100,000 inhabitants in 2010 was 12 and 11, respectively. In addition to increased rates of suicide in many circumpolar communities, alcohol has also played a significant role in the number of deaths caused by accident, assault, or homicide. In 2010, 17 deaths out of 100,000 inhabitants in northwestern Russia were due to assault or homicide, and a 2012 report indicated that more than 82 percent of homicide perpetrators in Finland were intoxicated by alcohol and 39 percent were described as alcoholics.¹⁹ In Alaska, nearly 1 in 13 Alaska Native deaths in 2005 were alcohol induced.²⁰ Moreover, studies

¹⁴ Parkinson, "Arctic Human Health Initiative," 10.

¹⁵ Atle Staalesen, "In the bottom of the bottle, a story about Arctic excess," *Barents Observer*, March 21, 2014, <http://barentsobserver.com/en/society/2014/03/bottom-bottle-story-about-arctic-excess-21-03>.

¹⁶ Levintova, Zapol, and Engmann, eds., "Behavioral and Mental Health Research in the Arctic," 33.

¹⁷ Allen, Levintova, and Mohatt, "Suicide and alcohol-related disorders in the U.S. Arctic," 477.

¹⁸ "Fetal Alcohol Syndrome Rate in Alaska Declines," Community Anti-Drug Coalitions of America, May 13, 2010, <http://mail.cadca.org/resources/detail/fetal-alcohol-syndrome-rate-alaska-declines>.

¹⁹ Staalesen, "In the bottom of the bottle, a story about Arctic excess."

²⁰ Allen, Levintova, and Mohatt, "Suicide and alcohol-related disorders in the U.S. Arctic," 478.

have found physical and sexual abuse to be among the most common risk factors for alcohol use disorders. In Alaska, among a sample of 830 individuals at a detoxification facility, 28 percent of women and 13 percent of men interviewed reported childhood physical abuse, while 31 percent of women and 6.5 percent of men reported childhood sexual abuse.²¹ Furthermore, the sample group also reported use of alcohol at an earlier age, more arrests, and more psychopathological issues.

What factors can help to reduce the risk of suicide in Arctic communities? According to the 2004 AHDR, studies of 195 First Nations in Canada indicated a decrease in adolescent suicide rates with an increase in self-government.²² Moreover, when six factors of cultural continuity—self-government, land claims, education, health services, cultural facilities, and police/fire service—were measured, suicide rates dropped from 137.5 per 100,000 to no suicides for the five-year study period. A recent study published in the *American Journal of Public Health* also concluded that Alaska Natives are less likely to commit suicide if they reside in communities with prominent traditional elders, a high number of married couples, and access to jobs.²³ Although unemployment rates in the Circumpolar North have generally decreased since 2000, unemployment rates have been on the rise since the global economic recession in 2008–2009. For instance, the unemployment rate in Lapland, Finland, rose from 9.9 percent in 2008 to 15.4 percent in 2013.²⁴ While studies have found alcohol abuse to be connected with high rates of suicide, this particular study concluded that outlawing alcohol in Arctic communities had no “statistically significant” impact on the number of 15- to 34-year-old Native men who committed suicide. The study also found that more than 46,000 Alaskans live in communities that ban or limit alcohol sales and yet these communities are also more likely to suffer from high poverty rates.²⁵ In contrast, villages with the lowest suicide rates also had higher household incomes and more households where residents spoke a native Alaskan language, suggesting a possible positive correlation between the practice of indigenous culture and lower suicide rates.

In addition to infectious diseases and the effects of cultural change and modernization on mental health, the changing physical environment in the Arctic also has a considerable impact on health and well-being. Factors, such as the melting sea ice and ocean acidification that impact the migration and movement of marine life, as well as

²¹ Ibid.

²² Hild and Stordahl, “Human Health and Well-being,” 158.

²³ Matthew Berman, “Suicide among Young Alaska Native Men: Community Risk Factors and Alcohol Control,” *American Journal of Public Health*, 104, no. S3, 2014, 329, <http://ajph.aphapublications.org/doi/pdfplus/10.2105/AJPH.2013.301503>.

²⁴ “Unemployment (% of population) 1990–2014,” Patchwork Barents, <http://www.patchworkbarents.org/newchart/mapchart.php?embed=1&type=line&file=chart-261&layout=horizontal>.

²⁵ Kyle Hopkins, “Study: Banning alcohol in Alaska villages doesn’t reduce suicide. But more jobs might,” *Alaska Dispatch News*, May 6, 2014, <http://www.adn.com/article/20140506/study-banning-alcohol-alaska-villages-doesnt-reduce-suicide-more-jobs-might>.

the increased use of shipping lanes, permafrost thaw, and increased access to natural and mineral resources, can have both positive and negative effects on Arctic communities. As human activity increases in the Arctic due to greater economic opportunity, indigenous communities may be more susceptible to vector-borne diseases such as West Nile virus, and zoonotic infectious diseases such as brucellosis, tularemia, or echinococcosis.²⁶

Of particular concern is the high prevalence of tuberculosis within Arctic communities. Inuit populations have the highest incidence of tuberculosis in Canada, with the 2013 infection rate of 143 per 100,000 people in Nunavut standing significantly above the national average of fewer than 5 infections per 100,000 people.²⁷ Overcrowding and poor housing quality in some communities further increase the risk of spreading tuberculosis.²⁸ Despite the territory's large disease burden, Nunavut lacks testing equipment and suffers from a shortage of qualified medical personnel needed to effectively treat micro-epidemics of tuberculosis.²⁹ ³⁰ Though infections in Nunavut have declined slightly from their highest level in 2010, high rates persist and national efforts at mitigating the disease appear to have had only limited success.³¹ This worrisome trend has also been observed in Greenland, where the tuberculosis incidence rate for 2013 was high at 194 per 100,000 people.³² Difficulties in retaining health staff in Greenland and in targeting small, remote communities with effective health interventions remain serious impediments to tackling this problem.³³

Finally, thawing permafrost creates infrastructural challenges, including possible damage to water and sanitation systems. Environmental contaminants are also of particular concern in the Arctic and could impede cognitive development in children, and could harm the endocrine and immune systems.

Arctic Human Development Report II

Ten years after the release of the first Arctic Human Development Report, the Nordic Council of Ministers has produced the second volume of the AHDR, which offers an in-depth analysis of changes in Arctic health and well-being over the past decade. This

²⁶ Parkinson, "Arctic Human Health Initiative," 10.

²⁷ V. Gallant, M. McGuire, and S. Ogunnaike-Cooke, "A summary of tuberculosis in Canada, 2013," *Canada Communicable Disease Report (CCDR)*, March 19, 2015, 41S-2: 8–15.

²⁸ Patrick White, "TB once again stalking the Arctic," *Globe and Mail*, December 13, 2010, <http://www.theglobeandmail.com/news/national/tb-once-again-stalking-the-arctic/article4263644/>.

²⁹ *Ibid.*

³⁰ "New test speeds up tuberculosis diagnosis in Nunavut, study finds," CBC News, March 24, 2015, <http://www.cbc.ca/news/canada/north/new-test-speeds-up-tuberculosis-diagnosis-in-nunavut-study-finds-1.3006334>.

³¹ Gallant, McGuire, and Ogunnaike-Cooke, "A summary of tuberculosis in Canada."

³² "Incidence of tuberculosis (per 100,000 people)," World Bank, World Development Indicators, <http://data.worldbank.org/indicator/SH.TBS.INCD/countries>.

³³ "Tuberculosis control in Greenland: Report on a country visit," World Health Organization, 2011, http://www.euro.who.int/__data/assets/pdf_file/0010/133489/e94755.pdf.

decadal update identifies emerging trends and threats that are impacting human health and well-being in the Arctic: the direct and indirect impacts of climate change, including worsening food and water security, changes in the pattern of infectious diseases, and effects on health care infrastructure; and the implications of an aging Arctic population.³⁴ The issue of mental health has been a consistent focus since the release of the first AHDR in 2004 and the 2014 report identifies mental health problems, high levels of suicide, and domestic violence as continuing threats to the health and well-being of Arctic communities. The 2014 AHDR also addresses other continuing health disparities, including infant mortality rate, the high prevalence of cardiovascular disease and tuberculosis, as well as sexually transmitted diseases (STDs).

As with the 2004 AHDR, the 2014 report applies the United Nations' Human Development Index (HDI) to the Circumpolar North. Based on the UN HDI, circumpolar regions generally fall into four categories according to their health status:

- (1) The Nordic countries—these rank highest in every health indicator, and there is generally little difference between north and south, or between indigenous and nonindigenous people.
- (2) Alaska, Yukon, and Northwest Territories—health status in these jurisdictions is comparable to, or even better than, the national average of the United States and Canada; however, within these regions, there are significant disparities between indigenous and nonindigenous people.
- (3) Greenland and Nunavut—with over 85 percent of the population indigenous, there is a wide gap in health status between these regions and Denmark and Canada.
- (4) The Russian Arctic—while the regions in the European North tend to fare better than those in Siberia, for almost any health indicator, the Arctic regions of Russia tend toward the lower end of the spectrum.³⁵

For instance, from 2005 to 2009, the average infant mortality rate (IMR) was less than 5 per 1,000 live births in the Nordic countries and less than 10 in Alaska, whereas it was over 20 in some Russian regions, including as high as 28 in the Koryak okrug.³⁶ However, the report notes that in comparison to the 2000 to 2004 average, from 2005 to 2009, there was a decrease in infant mortality and an increase in life expectancy in

³⁴ Joan Nyman Larsen and Gail Fondahl, "Major Findings and Emerging Trends in Arctic Human Development," *Arctic Human Development Report: Regional Processes and Global Linkages*, 2014, 484, <http://norden.diva-portal.org/smash/get/diva2:788965/FULLTEXT01.pdf>.

³⁵ Arja Rautio, Birger Poppel, and Kue Young, "Human Health and Well-Being," *Arctic Human Development Report: Regional Processes and Global Linkages*, 2014, 300.

³⁶ *Ibid.*, 301.

most of the Russian Arctic, with the few exceptions of the Koryak okrug, the (former) Evenki okrug, and the Magadan oblast.³⁷

In comparison to the 2004 AHDR, the 2014 report places greater emphasis on the effects of climate change as an emerging threat to Arctic health and well-being. There is a growing decline in food and fresh water security in the Arctic due largely to environmental changes. The 2014 AHDR concludes that degradation of permafrost, reduced ice cover, and extreme weather conditions are major factors contributing to the deterioration of food and water security in the Arctic. For instance, in Russia's Arctic region, reindeer-herding patterns of the Nenets people are being impacted by snow melts and longer snow-free periods. Moreover, in Northwest Alaska, the frequency of hunting and fishing accidents "has increased due to thin ice or changes in snow cover."³⁸ In northern Canada, surveys have found that over 60 percent of Inuit households are affected by food insecurity, and decreased access to safe food and water has led to an increase in infections and zoonotic infectious diseases in the Russian Arctic.³⁹

In addition to food and water insecurity, the 2014 AHDR also identifies environmental contaminants as an emerging threat in the Arctic. Studies have found that there are now "hot spots" of persistent environmental contaminants and heavy metals, particularly mercury, in industrial areas in Russia's Arctic region that are being released from thawing permafrost into water sources.⁴⁰ While new contaminant patterns are being observed in the Russian Arctic, the Arctic Monitoring and Assessment Programme (AMAP) has found that levels of mercury in human tissue are declining in several other Arctic regions; however, mercury levels remain highest among the Inuit.

Finally, the 2014 AHDR examines how the transition from "traditional" foods to a "Western" style diet is impacting the dietary health of Arctic communities, particularly indigenous populations. These dietary changes are contributing to increased rates of obesity, diabetes, and cardiovascular diseases. While many communities are attempting to address this emerging threat through nutritional programs, limited accessibility to food markets and high transportation and food prices make it difficult for many rural Arctic communities to maintain a balanced and nutritious diet. There continue to be unmet needs for greater health-promotion programs, disease-prevention strategies, the inclusion of food and water security indicators into monitoring and surveillance programs, as well as a greater understanding of how these communities perceive and evaluate their own health and well-being.

³⁷ Ibid., 316.

³⁸ Ibid., 309.

³⁹ Ibid.

⁴⁰ Ibid., 310.

The 2014 AHDR also identifies and addresses remaining gaps in knowledge in relation to Arctic health and well-being, including violence in families, discrimination and racism, and well-being indicators. Although available data is limited, studies have found that rates of violence against women are high in Iceland, Greenland, Finland, and Russia. Rates of violence against indigenous women are particularly high; for instance, “the rate of violence in families against Alaska Native and American Indian women are nearly three times higher than those of white women.”⁴¹

While new threats are emerging and gaps in knowledge do remain, the 2014 AHDR also notes Arctic success stories and improvements in the health and well-being of Arctic communities. Some of the primary successes over the past decade include the increasing use of traditional knowledge in education, governance, and other aspects of Arctic life; the increase in local participation, control, and ownership of northern resources; the continued growth of innovative governance arrangements, as well as growing regional autonomy; and the emergence of Arctic and indigenous identities and culture as a resource and asset within communities.⁴²

Accomplishments and Weaknesses of Arctic Health Programs

Arctic Health Care in the United States

In spite of the number of recent U.S. Arctic strategies and assessment studies, Arctic health issues generally remain a limited focus of U.S. policy. The upcoming U.S. chairmanship of the Arctic Council will provide an excellent opportunity to highlight and address critical health issues facing Arctic communities.

With 30,300 employees working in Alaska’s health system, health care has become one of the largest private employers in the state and the fastest-growing employment segment, with a growth rate of 46 percent from 2000 to 2009, twice the growth rate of the health care workforce in the rest of the United States.⁴³ Health care education and telemedicine programs have also expanded. For example, the College of Nursing at the University of Alaska more than doubled its capacity between 2000 and 2009, increasing the number of graduates from 71 to 187.⁴⁴ The Alaska Family Practice Residency is also improving the accessibility of health care, particularly in rural areas, with over 70 percent of the graduates choosing to remain and practice in Alaska. The College of Nursing has also expanded its distance-learning component to make these programs more accessible to students in remote areas although broadband access

⁴¹ Ibid., 333.

⁴² Joan Nyman and Larsen and Gail Fondahl, “Summary of Major Findings,” *Arctic Human Development Report: Regional Processes and Global Linkages*, 2014, 22–23.

⁴³ Kue Young and Gregory Marchildon, eds., “Alaska,” *A Comparative Review of Circumpolar Health Systems*, 2012, 38.

⁴⁴ Ibid., 39.

remains a challenge. According to a 2013 report from the Alaska Statewide Broadband Task Force, some 21,000 households in Alaska are not served by broadband and more than half the nation's anchor institutions (hospitals, schools, municipal governments, etc.) with insufficient broadband capabilities are in Alaska.⁴⁵ Moreover, Alaska ranks at the bottom in the percentage of households with access to broadband at 100 megabits per second.⁴⁶

The 2014 Implementation Plan for the National Strategy for the Arctic Region identifies the need to “coordinate better comprehension of the health and survival rates of Arctic indigenous peoples to facilitate improvements in well-being” as an objective of the U.S. Arctic strategy.⁴⁷ The report also outlines next steps to understanding human health issues in the Arctic including:

- (1) expand circumpolar surveillance and research for infectious diseases, noncommunicable diseases, trauma, injury, sanitation services, and indoor air quality to help prevent morbidity and mortality by the end of 2015;
- (2) continue interagency collaboration to monitor the impacts of climate change and environmental contaminants on human health and wildlife by the end of 2016;
- (3) support investigator-initiated research in major health priority areas such as mental health including substance abuse and suicide, obesity, diabetes, and cancer by the end of 2017; and
- (4) continue engagement with indigenous communities and tribal groups in health-related research activities and projects in the Arctic.⁴⁸

The 2014 Implementation Plan also indicates that the Department of Health and Human Services will be the lead agency addressing these issues and that the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF), and the Smithsonian Institute will provide supporting roles.

In 2009, the overall U.S. government investment in all biomedical and behavioral health-related research, training, and services in the U.S. Arctic through the Department of Health and Human Services (DHHS) “was over \$770 million USD in

⁴⁵ “A Blueprint for Alaska's Broadband Future,” Statewide Broadband Task Force, August 2013, 5, <http://www.alaska.edu/files/oit/bbtaskforce/2013-08-AK-Broadband-Task-Force-Report%7CA-Blueprint-for-Alaska's-Broadband-Future.pdf>.

⁴⁶ Ibid., 5.

⁴⁷ “Implementation Plan for the National Strategy for the Arctic Region,” White House, January 2014, 22, http://www.whitehouse.gov/sites/default/files/docs/implementation_plan_for_the_national_strategy_for_the_arctic_region_-_fi....pdf.

⁴⁸ Ibid., 22.

multi-year awards.”⁴⁹ However, only a small portion of this funding is devoted to research on Arctic health issues. The same year, the total NSF Arctic Social Science Research budget was roughly \$15 million, including funding for research to explore social and cultural determinants of health.⁵⁰ Although the National Institutes of Health (NIH) spent \$19 million in fiscal year 2013 on Arctic health-related projects, surprisingly the majority of these funds were not spent in Alaska.⁵¹ One of the main reasons for this investment shortfall is that these grants are incredibly competitive and scientists and researchers in Alaska face the challenge of being recognized in order to receive NIH grants. Therefore it becomes increasingly important for these researchers to partner with institutions that do regularly receive NIH grants; however, many Alaskan scientists prefer to partner with their Arctic neighbor by turning to Canadian institutions for funding support.

There has been some research activity within the National Institute of Mental Health (NIMH), the National Institute for Drug Abuse (NIDA), and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) to examine and address behavioral and mental-health issues in the Arctic. For instance, the NIAAA funded two recent projects at the Center for Alaska Native Health Research (CANHR), including one that “developed a culturally based alcohol-use prevention program for rural Yup’ik 12-18 year-olds.”⁵² Because numerous epidemiological studies indicate that mental illness is one of the largest health burdens in the Circumpolar North and requires greater focus from all Arctic nations, the Fogarty International Center (FIC) of the NIH, with support of the U.S. Arctic Research Commission (USARC) and the Centers for Disease Control and Prevention (CDC), hosted a workshop on behavioral and mental-health research in the Arctic in 2009. The primary goal of the conference was to develop a research strategy to address circumpolar behavioral and mental health that will be utilized to advise the Interagency Arctic Research Policy Committee (IARPC) on its development of an Arctic Human Health Research Plan. However, lack of sufficient cooperation between U.S. organizations and agencies remains one of the barriers to substantial progress in addressing mental-health issues in the Arctic.

The Centers for Disease Control’s Arctic Investigations Program (AIP) strives to monitor and prevent the spread of infectious diseases in Arctic and sub-Arctic communities. AIP conducts disease surveillance, evaluates prevention services, and also conducts applied research in collaboration with other research partners. In 2011, the CDC invested \$2.3 million to expand the AIP center in Anchorage, Alaska.⁵³ The AIP lab in Alaska has played a leading role in reducing the number of cases of

⁴⁹ Allen, Levintova, and Mohatt, “Suicide and alcohol-related disorders in the U.S. Arctic,” 479.

⁵⁰ *Ibid.*, 481.

⁵¹ “Estimates of Funding for Various Research, Condition, and Disease Categories (RCDC),” NIH Research Portfolio Online Reporting Tools, February 5, 2015, http://report.nih.gov/categorical_spending.aspx.

⁵² Allen, Levintova, and Mohatt, “Suicide and alcohol-related disorders in the U.S. Arctic,” 481.

⁵³ Alex DeMarban, “CDC expands Arctic lab to fight disease, bioterrorism in Alaska,” *The Arctic Sounder*, February 8, 2011, http://www.thearcticsounder.com/article/1106cdc_expands_arctic_lab_to_fight_disease.

Hepatitis B and A among Alaskan communities, as well as battling the respiratory syncytial virus, which can lead to pneumonia and bronchiolitis.

The U.S. Arctic Research Commission was established in 1985 to offer advice to the president, Congress, and federal agencies relating to Arctic research. The commission has been a longstanding advocate of the necessity of increased research on health and well-being issues in the Arctic. In 2012, USARC identified five priority areas of research, including Arctic human health. Specifically, USARC has focused attention on the presence of contaminants in the Arctic environment and how these pollutants could affect the health of communities, particularly indigenous communities that rely heavily on marine animals for their subsistence. USARC has partnered with the Alaska Native Tribal Health Consortium to address this issue and conduct follow-on research. USARC also leads and coordinates the Alaska Rural Water and Sanitation Working Group, which strives to provide safe drinking water and promote hygiene in Alaska's rural villages. One of the primary goals of the working group has been to increase collaboration between health, engineering, and Alaska Native groups in order to incorporate socio-behavioral and cultural practices with improved health and sanitation standards.

The Arctic Council's Focus on Health Care

Health issues of Arctic indigenous people have been a traditional area of policy focus for the Arctic Council—the premier intergovernmental forum that brings together eight Arctic nations and representatives of the circumpolar indigenous communities (Permanent Participants), to discuss Arctic environmental and sustainable development issues. Several Arctic Council working groups such as the Sustainable Development Working Group (SDWG), the Arctic Monitoring and Assessment Programme (AMAP), and the Conservation of Arctic Flora and Fauna (CAFF), specifically seek to promote Arctic health research and identify ways to improve the health and well-being of Arctic communities.

Established in 1998, SDWG has been the most engaged Arctic Council working group on Arctic health issues. Through the SDWG, the United States has led a project on developing greater telemedicine access in the Arctic. Telehealth, or e-health, has proven particularly useful in the Circumpolar North where the harsh climate and remoteness can present obstacles to providing accessible health care. Arctic regions have been world leaders in the development of e-health initiatives since the mid-twentieth century.⁵⁴ The four key elements of e-health in the Circumpolar North include: telemedicine, infrastructure, electronic health records, and education. Real-time telemedicine is used to diagnose patients remotely, primarily in the areas of psychiatry, cardiology, and dermatology. Telemedicine is particularly powerful in regions where physical check-in appointments are expensive and often inaccessible.

⁵⁴ Young and Marchildon, eds., "Alaska," 95.

Teleradiology is also practiced widely in Arctic regions and is an example of store-and-forward telemedicine, a form of diagnosis in which local practitioners or patients send images and other information to a central location where an expert can review the data. However, the ability to maintain e-health capabilities requires adequate information and communications technology (ICT) infrastructure, including high bandwidth and patient access to computer systems, which can be limited in certain Arctic communities.

In 2008, the SDWG established a subsidiary, the Arctic Human Health Expert Group (AHHEG), to provide expert advice on a variety of Arctic health issues.⁵⁵ Responsible for developing the SDWG's human health agenda and for proposing priorities and projects, the AHHEG is composed of health experts with experience and expertise in health systems, services and policy, indigenous and traditional knowledge, environmental health, as well as the social, cultural, and economic aspects of health.⁵⁶ The AHHEG was established to assist the Arctic Council in its development and coordination of human health activities by: "identifying priority projects that will result in improved health; engaging the appropriate subject matter experts to evaluate potential actions and collaborate on priority projects; monitoring a project's progress; and improving the Arctic Council's ability to translate knowledge gained into meaningful actions that will benefit communities and improve their members' health."⁵⁷ Since its creation in 2008, the AHHEG has identified the following issues as priorities for the Arctic Council: behavioral and mental health; diet and nutrition; health care for indigenous communities; inequalities in health; and the impact of climate change on human health and well-being.⁵⁸ In 2010, the AHHEG also proposed the creation of the Circumpolar Health Observatory (CircHOB), an international collaborative health information and data collection system that monitors trends and patterns in health status, health determinants, and health care.

The Arctic Council's International Circumpolar Surveillance (ICS) was launched in 1999 to focus on invasive bacterial and infectious diseases. Led by the United States and initiated by the Arctic Investigations Program, this project has established a network of hospital and public health laboratories throughout the Arctic region to collect, track, and share information concerning infectious diseases and their potential impact on health in Arctic communities. The increased accessibility of the Arctic region has made indigenous communities more susceptible to infectious diseases, including pneumonia, meningitis, and influenza. While vaccine programs have significantly reduced the number of cases affected by these diseases, the ICS

⁵⁵ Rautio, Poppel, and Young, "Human Health and Well-Being," 298, <http://norden.diva-portal.org/smash/get/diva2:788965/FULLTEXT01.pdf>.

⁵⁶ "Arctic Human Health Expert Group," Arctic Council, 2013, <http://www.arctic-council.org/sdwg/expert-groups/arctic-human-health-expert-group/>.

⁵⁷ Alan J. Parkinson, "Improving human health in the Arctic: The expanding role of the Arctic Council's Sustainable Development Working Group," *International Journal of Circumpolar Health* 69, no. 3 (2010), 311, <http://www.circumpolarhealthjournal.net/index.php/ijch/article/view/17622/20093>.

⁵⁸ Parkinson, "Improving human health in the Arctic," 312.

maintains careful surveillance programs to monitor disease trends, detect clusters of disease, and provide information critical for vaccine recommendations.

In 2006, the foreign ministers of the eight Arctic Council member states requested the Arctic Monitoring and Assessment Program (AMAP) working group create a coordinated Arctic Observing Network to identify societal needs in the circumpolar region. As a result of this initiative, the Sustained Arctic Observing Networks (SAON) was formed to develop long-term, Arctic-wide observing activities and to provide scientific and societal communities with open and timely access to quality data. SAON was also billed as a way to identify existing observing networks and opportunities for improving access and data sharing among Arctic nations.⁵⁹

In addition to creating SAON, AMAP also has monitored and assessed the effects of contaminants on atmospheric pathways, biota impacts, food chain dynamics, and human health issues since 1991.⁶⁰ The AMAP Human Health Assessment Group (HHAG) has completed three assessments on the human health impacts of environmental contaminants, which include human monitoring data, dietary studies, and risk management strategies to mitigate the effects of pollutants.

Canada has focused its 2013–2015 Arctic Council chairmanship program on “development for the people of the North” with specific emphasis on ensuring sustainable circumpolar communities and the “self-reliant individuals [who] live in healthy, vital communities, manage their own affairs and shape their own destinies.”⁶¹ An additional Canadian focus has been on the promotion of “mental wellness . . . [to] increase the ability of Arctic residents to thrive and adapt to the many changes affecting the Arctic.”⁶² The Arctic Council has continuously sought to incorporate traditional and local knowledge into its work, including its efforts to improve health care systems in the Arctic. By addressing the effects of short-lived climate pollutants in the Arctic, including black carbon and methane, the work of the Arctic Council seeks to improve the overall quality of the health of Arctic communities and the circumpolar environment itself.

International Cooperation on Arctic Health Issues

Through the Arctic Council and other international forums, international cooperation on Arctic health issues has been of particular value. Arctic health organizations include the following:

⁵⁹ Parkinson, “Arctic Human Health Initiative,” 24.

⁶⁰ *Ibid.*, 26.

⁶¹ “Canadian Chairmanship Program 2013–2015,” Arctic Council, May 15, 2013, <http://www.arctic-council.org/index.php/en/resources/news-and-press/news-archive/735-canadian-chairmanship-program-2013-2015>.

⁶² *Ibid.*

- International Union for Circumpolar Health (IUCH), a nongovernmental organization that promotes circumpolar collaboration in different fields of health and medicine.
- International Arctic Social Sciences Association (IASSA), which promotes participation of scientists in national and international Arctic research.
- International Network for Circumpolar Health Research (INCHR), a voluntary network of researchers that conducts and sponsors research programs to investigate the patterns, determinants, and impact of health conditions among circumpolar communities.
- European Union’s Northern Dimension Partnership in Public Health and Social Well-being (NDPHS), which promotes sustainable development.
- Northern Forum, a nonprofit organization that creates avenues for increased cooperation and joint training and also promotes the expansion of telemedicine.
- The Belmont Forum—an organization that brings together the world’s major and emerging funders of global environmental change research and international science councils—has recently released grant funding for international collaborative research related to sustainability and health research investment in the Arctic. The forum aims to address how food and water security, availability of natural resources, and environmental changes can impact Arctic health and well-being.

Policy Recommendations

- *Create a new Arctic Council Working Group dedicated to Arctic health and well-being.* A key pillar of the United States’ agenda for its chairmanship of the Arctic Council is “improving economic and living conditions” of Arctic communities. A critical way to elevate Arctic health and well-being as an area for expanded policy focus both domestically and internationally is for the Arctic Council to form a new working group solely dedicated to health and human-development issues, building upon and expanding work that has already been completed under the auspices of the Sustainable Development Working Group (SDWG). This proposed working group could develop specific projects based on the findings of the 2014 Arctic Human Development Report and serve as a major deliverable of the U.S. Arctic Council chairmanship.

One specific area of focus for this working group to prioritize could be suicide prevention and resilience, for instance by developing and implementing a large-scale research initiative. The working group could launch a major program based

upon the U.S. Substance Abuse and Mental Health Services Administration, NIMH, and the CDC's new initiative, "RISING SUN"—which stands for Reducing the Incidence of Suicide in Indigenous Groups / Strengths United through Networks—to reduce and prevent suicide in indigenous communities.⁶³ Moreover, the United States has already proposed to "create a common, science-based system of metrics to track suicidal behaviors and key correlates, interventions, and outcomes across Arctic States." Following through with this task could also be one of the first actionable items for this working group, expanding on prior efforts undertaken during the Danish and Canadian chairmanships.⁶⁴

Relatedly, the working group could play a leading role in addressing substance abuse. A 2012 "Healthy Alaskans 2020" survey indicated that alcohol use and abuse is considered one of the most important health issues to Alaskans. Of those polled, 9.6 percent indicated that they are most concerned about heavy drinking.⁶⁵ As numerous health studies have found a correlation between alcohol abuse and higher suicide rates, in addition to elevated rates of homicide and fetal alcohol syndrome, addressing alcohol abuse and its underlying causes could prove an effective way to also combat high suicide rates and improve mental wellness in indigenous communities. Already, the state's "Recover Alaska" initiative seeks to reduce the prevalence of alcohol abuse, but sustained policy attention at the federal and international levels would help to complement and bolster such efforts to understand and discourage substance abuse.

- *Focus on mental well-being and suicide prevention through job creation in Arctic communities.* The Arctic Council's mandate is to focus both on Arctic environmental protection *and* on sustainable development, yet historically the activities and assessments of the six Arctic Council working groups have been largely dedicated to understanding and mitigating environmental changes. However, with the advent of the Arctic Economic Council (AEC) in the fall of 2014, sustainable development has moved higher on the Arctic policy agenda. Although the AEC is not part of the Arctic Council per se, one way the work of the AEC could formally interact with the Arctic Council could be through a newly created Arctic Health Working Group to conduct additional research in order to better understand the nexus between economic growth and suicide prevention. Even if a formal health working group is not created, additional policy attention from the AEC would lend urgency to human wellness, helping to ensure that adequate funding is allocated for circumpolar health and well-being projects.

⁶³ Julie Gourley, "Arctic Council United States Chairmanship 2015–2017" (presentation given to senior Arctic officials, Yellowknife, Canada, October 22–23, 2014), 19.

⁶⁴ Ibid.

⁶⁵ "Healthy Alaskans 2020 Survey Results Released," Alaska Department of Health and Social Services, press release, December 5, 2012, http://dhss.alaska.gov/News/Documents/press/2012/HA2020_PR_12052012.pdf.

The state of Alaska believes there is a strong correlation between economic growth and mental health. On July 17, 2014, former Alaska governor Sean Parnell signed House Joint Resolution 24, which urged the U.S. State Department to consider the following priorities for its chairmanship: creating jobs and economic opportunities for Arctic residents; preventing suicide; developing safe and sustainable sanitation facilities for small, isolated Arctic communities; and securing safe and reliable shipping.⁶⁶ Moreover, two members of the Alaska Arctic Policy Commission in a recent letter to the State Department stated, “our primary concern is for the well-being of those that live in the Arctic. Life for many of these people is already difficult—we believe economic development policies designed to benefit Arctic residents is the best way to increase their well-being. In addition, any policies addressing climate change or management of Arctic waters must not negatively impact the people. In short, we believe your priorities should be in this order: jobs and economic development for Arctic people, changing Arctic climate, and safe Arctic waters.”⁶⁷

Consequently, Alaskan officials have prioritized the creation of jobs and economic opportunities in order to build economic capacity in Arctic communities and reduce unemployment (especially youth unemployment), which has been tied to high suicide rates in the Circumpolar North. In the 2014 Alaska Arctic Policy Commission’s Implementation Plan, Alaska’s Department of Labor and Workforce Development (DLWD) is working with other state and federal agencies, as well as corporations and businesses, to improve employment opportunities in Alaska and provide training and education resources.⁶⁸ The workforce development program will also include private-sector mentorship and apprenticeship programs to assist local residents in gaining necessary labor skills.

The development of sustainable regional infrastructure such as roads, sewage and sanitation facilities, health facilities, as well as technological infrastructure would not only create employment opportunities but also increase communities’ access to health resources and services. In Alaska, the Department of Environmental Conservation (DEC) has created the Alaska Water and Sewer Challenge in order to develop innovative and cost effective water and sewer systems for rural Alaskan communities. The project established a public-private partnership to bring together DEC officials, engineers, innovators, sociologists, and people with rural

⁶⁶ “Governor Addresses Bethel Chamber of Commerce,” Office of Governor Sean Parnell, press release, July 17, 2014, <http://www.noodles.com/view/6FA529991B127F61B988F90B11BD2226BA6496E8?8954xxx1405676536>.

⁶⁷ “AAPC Co-chair letter to Admiral Bob Papp and Ambassador David Balton,” Alaska Arctic Policy Commission, October 6, 2014, <http://www.akarctic.com/wp-content/uploads/2014/10/10.6.14-LTR-to-Papp-and-Balton-from-AAPC-co-chairs-FINAL.pdf>.

⁶⁸ “Implementation Plan—Strategic Recommendations,” Alaska Arctic Policy Commission, September 17, 2014, 30, <http://www.akarctic.com/wp-content/uploads/2014/09/ImplementationPlanFORstratRecsV11-1.pdf>.

experience to provide safe water and sewage to over 4,500 rural Alaska homes.⁶⁹ Alaska's Red Dog Mine has also worked to foster public-private partnerships to promote the health and economic well-being of Alaskan communities. Teck Alaska Incorporated, operator of the Red Dog Mine, financially contributes to education, youth, health, and cultural organizations in nearby communities. For instance, in 2009, Red Dog supplied over 10,000 gallons of heating oil at a reduced cost, saving local communities over \$50,000, and in the same year the mining company contributed \$100,000 to a local school district in support of their technology program.⁷⁰ Furthermore, in cooperation with the NANA Development Corporation—which is owned by the Iñupiat—in the early 1980s, Red Dog established an independent Subsistence Committee consisting of local Native hunters and elders to provide guidance on environmental and subsistence matters.⁷¹ The AEC again could play a role in highlighting and identifying similar opportunities for private- and public-sector cooperation.

- *Improve Arctic health care systems with an emphasis on traditional knowledge.* Indigenous communities and their traditions and cultures vary throughout the circumpolar Arctic and therefore certain health initiatives may yield more positive results in some cultures than in others. For example, while increased self-governance helped to reduce youth suicide rates in Canada, this factor had little effect in Greenland, which has practiced self- and home-rule-government for a number of years. According to the 2004 AHDR, “It is the parts of culture that promote health that have the most significant impact.”⁷² In a region where subsistence is tied closely to cultural heritage and traditional knowledge, it will be important for Arctic nations to balance and incorporate cultural values and traditional knowledge with advanced medical technologies.

In 2006, the Ajunniginiq Center at the National Aboriginal Health Organization (NAHO) produced a report on suicide prevention that drew heavily on the importance of traditional knowledge. The report identified certain coping skills as particularly important to Inuit culture including: patience; love and caring; communication; awareness of self and others; confidentiality and respect for others; and personal responsibility to youth.⁷³ Furthermore, a 2006 Mamisarniq conference on Inuit mental health, addictions, and healing found that sharing life

⁶⁹ “The Alaska Water and Sewer Challenge,” Alaska Department of Environmental Conservation, September 29, 2014, <http://watersewerchallenge.alaska.gov/>.

⁷⁰ “Community Investment,” Red Dog Operations, 2009, <http://www.reddogalaska.com/Generic.aspx?PAGE=Red+Dog+Site%2fCommunity&portalName=tc>.

⁷¹ “Environmental Stewardship and Sustainability,” Red Dog Operations, 2009, <http://www.reddogalaska.com/Generic.aspx?PAGE=Red+Dog+Site%2fEnvironmental+Stewardship&portalName=tc>.

⁷² Carl M. Hild and Vigdis Stordahl, “Human Health and Well-being,” *Arctic Human Development Report*, 2004, 156, http://svs.is/images/pdf_files/ahdr/English_version/AHDR_first_12pages.pdf.

⁷³ “Inuit Approaches to Suicide Prevention,” Inuit Tapiriit Kanatami, September 10, 2008, <https://www.itk.ca/inuit-approaches-suicide-prevention>.

stories in a healing circle, the use of traditional Inuit images, and teaching Inuit history and culture were efficacious interventions and helped promote mental wellness.⁷⁴ Research frameworks that utilize local knowledge and traditions, as well as community-based participatory research (CBPR), are receiving wide attention in Arctic health. For example, in 2013 a NIH-funded project through the University of Alaska Fairbanks examined how various methods for CBPR intervention, dissemination, and implementation could be used to prevent suicide and reduce alcoholism among Alaska Natives.⁷⁵

The United States and other Arctic nations should develop an initiative to strengthen and update medical training and practices within indigenous communities to mitigate the limited access to medical personnel and to improve medical outreach and promote preventive health interventions. Telemedicine has proven extremely useful and successful in circumpolar communities and the United States could continue to promote and fund the development of technological infrastructure to support telemedicine and e-health in the Arctic. This initiative would also provide the additional benefit of enhancing emergency response in remote regions.

- *Strengthen the science research agenda and enhance scientific international cooperation.* The United States is an Arctic science power. The United States spends an estimated \$500 million to \$1 billion on polar science research, yet the bulk of that research is focused on understanding environmental change. While identifying the causes of these profound shifts is critical, it is equally important to assess and mitigate their impacts on the health and well-being of Arctic communities.⁷⁶ The United States should and could do more to address Arctic health and well-being, for example by modestly increasing CDC's and NIH's budgets to facilitate study grants and targeted research activities to enhance our understanding of climate-change-related health issues in Alaska's Arctic regions. In particular, one of the greatest single challenges confronting Arctic health organizations and programs is a lack of information and longitudinal health and well-being studies. There is also a paucity of data related to the effects of toxins and contaminants on human health in northern climates, particularly in children. In order to develop effective health strategies, consistent, accurate, and directly comparable health data is required.

⁷⁴ Michael J. Kral et al., "Canadian Inuit Community Engagement in Suicide Prevention," *International Journal of Circumpolar Health* 68, no. 3 (2009): 303, <http://www.circumpolarhealthjournal.net/index.php/ijch/article/viewFile/18330/21018>.

⁷⁵ "Qasgiq: Dissemination using Yup'ik Indigenous Implementation Strategies," U.S. Department of Health and Human Services, NIH Research Portfolio Online Reporting Tools, http://projectreporter.nih.gov/project_info_description.cfm?aid=8565700&icde=0.

⁷⁶ Heather A. Conley "What to Know about the New White House Executive Order on Enhancing Coordination of National Efforts in the Arctic," *CSIS Critical Questions*, January 22, 2015, <http://csis.org/publication/what-know-about-new-white-house-executive-order-enhancing-coordination-national-efforts->.

A more focused Arctic health research agenda is ripe for enhanced international collaboration. During the U.S. chairmanship of the Arctic Council, U.S. institutes such as NIMH, NIDA, and NIAAA should collaborate and jointly develop new, multiyear grant activity focused on enhancing Arctic health research in collaboration with other Arctic Council states, particularly Canada. As a number of American scientists already collaborate with Canadian institutions, the United States and NIH should increase their efforts to collaborate with their Canadian counterparts and develop new research projects. Another critical international Arctic health research venue is the recently formed Arctic Council's Scientific Cooperation Task Force (SCTF), which is working toward a legally binding international agreement to enhance Arctic scientific cooperation. Not only should the United States encourage the expansion and support of the bilateral financing of Arctic Council and international health research programs, such as the International Network for Circumpolar Health Research (INCHR), but should also "identify climate sensitive indicators . . . [that] will enable the prediction of health impacts and the development of mitigation strategies."⁷⁷

In an important development, the U.S. Department of State recently announced its new Fulbright Arctic Initiative (FAI), which will seek to create an international network of scholars, professionals, and applied researchers to "stimulate international scientific collaboration on Arctic issues," including in the areas of energy, water, health, and infrastructure.⁷⁸ In regards to Arctic health and well-being, FAI scholars will be encouraged to consider the specific issues that coastal communities face, such as erosion and storm surge, subsistence activities, food supply, and availability of medical care, as well as the protection and continuity of indigenous cultures and identities.

Finally, maintaining public awareness and policy momentum regarding Arctic health and well-being during the two-year U.S. chairmanship will be absolutely vital for both the broader international and health policy communities. Building upon the planned activities of the U.S. chairmanship, it is strongly encouraged that nongovernmental organization and research foundations such as the Robert Wood's Foundation, the Kaiser Family Foundation, the Center for Strategic and International Studies, and others host high-profile international seminars and conferences to discuss the unique challenges of Arctic health and well-being as well as to focus on future international research and collaborative opportunities. To be successful, the agenda of the U.S. Arctic Council chairmanship must remain centered on efforts that will improve the lives of the people who live in the North so that their health, food security, environmental sustainability, resilience, and economic wellbeing are ensured for the future.

⁷⁷ Parkinson, "Arctic Human Health Initiative," 10.

⁷⁸ "Fulbright Arctic Initiative," Fulbright Scholar Program, <http://www.cies.org/program/fulbright-arctic-initiative>.



1616 Rhode Island Avenue NW
Washington, DC 20036
202-887-0200 | www.csis.org

Cover photo: Photo by Ansgar Walk.