



Sustainable Development
Working Group

SDWG's Analysis and Advice for SAOs: Arctic Council COVID-19 Work

DRAFT
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Table of Contents

OVERVIEW	1
SDWG ANALYSIS AND ADVICE	1
Existing Projects	2
Potential Projects	2
Governance of Arctic Council COVID-19 Work	4
WHAT WE HEARD FROM EXPERTS	5
PROPOSED NEXT STEPS	7
APPENDIX 1: LIST OF CONTRIBUTORS	8
APPENDIX 2: ANALYSIS OF EXISTING AND POTENTIAL SDWG PROJECTS	9
APPENDIX 3: DETAILED OVERVIEW OF SDWG MEMBER INPUT	19
APPENDIX 4: SUMMARY OF CANADA'S COVID-19 PROJECT PROPOSAL	24
APPENDIX 5: DETAILED OVERVIEW OF EXPERT AND KNOWLEDGE ADVICE	26

Overview

On 25 June, SAOs had an initial discussion regarding COVID-19 in the Arctic and the potential role of the Arctic Council in responding to the pandemic. This discussion was informed by *COVID-19 in the Arctic: Briefing Document for SAOs* that outlined the impacts of the pandemic in the Arctic and identified “knowledge gaps and areas for potential action.”

Subsequently, the SAO Chair invited Member States, Permanent Participants, Working Groups and the Black Carbon and Methane Expert Group to review the briefing document and provide more formulated advice regarding work that the Arctic Council could undertake to respond to the “knowledge gaps and areas for potential action” identified in the briefing document. The advice and input received will be used to inform further discussions by SAOs at their meeting in November 2020.

In support of advancing this discussion, the SDWG sought input from its members, representatives of its two expert groups – the Arctic Human Health Expert Group (AHHEG) and the Social, Economic and Cultural Expert Group (SECEG) – and Observers (A complete list of contributors is attached as Appendix 1).

This document outlines SDWG’s initial analysis of areas where it has the mandate and expertise to contribute to the Arctic Council’s work related to COVID-19.

SDWG Analysis and Advice

SDWG recognizes the importance of identifying existing and potential projects that can contribute to understanding and responding to the impacts of COVID-19 in the Arctic. In particular, SDWG members indicate that:

- The Arctic Council should pay **significant attention to the evolving impacts of the pandemic**, while being prepared for potential similar or worse global and regional scenarios in the future. The Arctic Council should establish **public health as one of its priority areas** through current and upcoming chairmanships (Finland).
- **Information is needed on the effects of COVID-19 in the Arctic.** Attention should be given to mapping the situation and scenario analyses. Data is needed to map the opportunities, challenges and potential response measures (Saami Council).

As a starting point, SDWG reviewed the *COVID-19 in the Arctic briefing document* to **identify SDWG's current or potential projects** that respond to the identified knowledge gaps and potential areas for action. A **detailed analysis of all existing SDWG projects is presented in Appendix 2.**

In addition, SDWG members provided additional advice and recommendations that are summarized below in three sections: 1) Existing projects 2) Potential projects, and 3) Governance of Arctic Council COVID-19 work. A detailed breakdown of advice and recommendations by SDWG members is provided in Appendix 3.

Existing Projects

The analysis of existing SDWG projects presented in Appendix 2 demonstrates that the SDWG has several projects that respond to specific knowledge gaps and areas for potential action identified in the COVID-19 in the Arctic briefing document. In addition, the SDWG has projects that can be **modified and expanded on** to respond to COVID-19. Appendix 2 provides a comprehensive analysis of all SDWG projects.

In addition, SDWG members focused in on three SDWG projects that are of immediate value for the Arctic Council's work related to COVID-19 in the Arctic:

1. Arctic Resilience

- The Arctic Resilience Action Framework (ARAF) and its Implementation Project could serve as a useful guide to structure much of the Arctic Council's work related to COVID-19 (Finland).

2. One Health

- There is a need for a reinforced focus on the One Health approach (Saami Council).
- This project should be modified to include deliverables related to COVID-19 (Canada, Iceland).

3. Local2Global

- L2G should be utilized and modified to be responsive to the COVID-19 context. Mental health issues as a result of the pandemic is a serious concern (Finland, Canada).

Potential Projects

Appendix 2 also identifies areas where the SDWG has the mandate and may have the capacity to develop projects that contribute to the advice and recommendations presented in the SAO COVID-19 briefing document. In fact, this initial analysis indicates that the SDWG has the

potential to develop projects that could respond to specific recommendations in the briefing document in every section of the document, including:

1. Available Epidemiological Data
2. Infectious Disease Monitoring and Assessment
3. Patient Care
4. Public Health Information Sharing, Awareness and Education
5. Risk Management and Mitigation
6. Impacts on Physical Well-Being and Mental Health
7. Impacts on Regional and Local Economies by Sector/Industry
8. Impacts on Social and Cultural Environments
9. Impacts on Vulnerable Persons
10. Impacts on Knowledge Production
11. Impacts on Mobility
12. Enabling Public Infrastructure

In addition to this general analysis of where the SDWG has the potential to contribute based on the guidance providing in the COVID-19 in the Arctic briefing document, SDWG members have proposed several specific areas where new initiatives could be developed, including projects that examine:

1. Opportunities for projects that **facilitate cooperation and sharing of resources across national borders. Best practices should be compiled and disseminated.** For example:
 - **Natural Resources Institute Finland** is conducting research on the effects of the coronavirus on agriculture, forestry and fisheries, and nature-based tourism and services (Finland).
 - **Farm to Fork Strategy** is a preparedness plan of the sustainable food system to ensure EU's food maintenance and safety (Finland).
 - **The anticipated and unanticipated consequences of COVID-19 and COVID-19 prevention strategies** among Indigenous peoples in Arctic communities. This project is being launched in Canada and there is the opportunity to identify co-leads to table this as an SDWG project. A project outlined is attached as Appendix 4 (Canada).
2. The **role of spread and intensity of epidemics** in the Arctic environment (Finland), such as:
 - The Russian Federation's Biosecurity in the Arctic project proposal;
 - A project to prepare local economies to manage and mitigate risks by assessing how the virus spreads in industries in the Arctic.
 - A project to analyze the use of telemedicine as a means to support Arctic communities during the pandemic.

3. The impacts of the pandemic on **pregnancy and birth** (AAC).
4. The **gendered impacts** of COVID-19, including gendered violence and bias in employment (AAC).
5. The health impacts of **climate change**, which facilitates the movement of plant and animal species that may carry diseases or viruses (Finland).
6. The circumpolar **Indigenous responses to the pandemic** that highlight stories not only of the **challenges but more importantly that demonstrate resilience** (ICC).
 - Review land-based activities as a response to COVID-19 (AAC).
7. Borderless cultural life and **challenges for mobility and economic interactions**. These challenges need to be communicated to decision makers (Saami Council).
8. **Innovative new market** and development opportunities for all industries. Specifically, these opportunities that are culturally appropriate and ensure that Sámi workers are made visible (Saami Council).

Governance of Arctic Council COVID-19 Work

Finally, SDWG members were asked to consider how the Arctic Council's work related to COVID-19 should be organized and managed. With regards to how COVID-19 work should be led or coordinated, there were different perspectives. For example:

- Finland recommends that all Arctic Council Working Groups be involved, but **one working group** be tasked with coordinating work. Finland suggests that the SDWG is the most appropriate working group to assume this role.
- ICC strongly encourages the **creation of a Pandemic Response Task Force** to provide recommendations and next steps. This should be carried out in an integrated and coordinated fashion by a team of experts, permanent participants and observers.

With regards to the management of its COVID-19 work, it is recommended that the SDWG continue to work in collaboration with SECEG and AHHEG to **identify pressing and long-term priorities for research, monitoring or project work** (Iceland).

WHAT WE HEARD FROM EXPERTS

Many recommendations put forth by SDWG members were echoed in the advice provided by experts and knowledge holders from AHHEG, SECEG, Arctic Council Observers and other partners. As the Arctic Council considers next steps for its work related to the pandemic, this network of experts and knowledge holders is a valuable resource to inform the Arctic Council's efforts. A detailed summary of the advice received is presented in Appendix 5. This advice is encapsulated in the following 11 core themes:

1. Human health and the recognition of interconnectivity of health issues (in partnership with AMAP)

- Adapt and utilize the One Health approach moving forward.
- Place priority on health services and outcomes – there is a need to ensure access and capacity are understood, supported, and culturally-appropriate.
- Emphasize mental health with particular attention to suicide, loneliness, addiction, violence and related services.

2. The need for emergency preparedness planning (in partnership with EPPR)

- Ensure continuous surveillance of changes in the Arctic, with the use of traditional and Indigenous knowledge to optimize responses in the future.
- Establish circumpolar pandemic planning systems.

3. An emphasis on incorporating local realities and regional diversities

- Stress that no solution or policy will be successful without local engagement.
- Place importance on understanding local knowledge, institutions, and responses.

4. The need for capacity building

- Focus on strengthening local capacity moving forward.
- Establish recovery funding and programs that are effective and culturally appropriate.
- Invest in community leadership training and Indigenous institutions.

5. Data access and consistency

- Create links between localized and circumpolar data.
- Share and disseminate information about local efforts and responses.

- Collect data that holistically represents the experiences of Arctic communities through lived experiences, regional case studies and specific numeric indicators.
- Include periodic indicators and consistently update and share data.

6. Mapping unintended consequences and regional responses

- Highlight efforts to understand economic, social and cultural impacts.
- Observe existing trends, long term disruptions, and new challenges, while incorporating Indigenous and traditional knowledge.

7. Showcasing Arctic resilience and knowledge systems

- Utilize local systems and structures to advance the rebuilding of activities.
- Profile Arctic resilience and the innovations of Indigenous institutions.

8. Youth capabilities and impacts

- Focus on youth experiences and perspectives.
- Research the short- and long-term impacts of changes in education.

9. Using COVID-19 as a mobilizer to address long-term challenges

- Research potential job growth and job creation in sustainable industries.
- Recognize COVID-19 as a stress test on public infrastructure and highlight areas where vulnerabilities must be examined and addressed.

10. Building connections and strengthening partnerships with experts

- Recognize that COVID-19 challenges are linked to wider sustainability challenges in the Arctic.
- Evaluate COVID recovery plans and identify opportunities for new economic futures.

11. Governance of COVID-19 work

- Establish clear systems and structures to support Arctic Council COVID-19 work.
- Support partnerships and collaboration that leverage the many networks of experts and knowledge holders connected to the Arctic Council.

Proposed Next Steps

The SDWG welcomes feedback and guidance from SAOs regarding how the Arctic Council will advance work related to COVID-19 and what initiatives may be prioritized in the short- and medium-term.

The SDWG remains committed to advancing work related to the impacts of the pandemic in the Arctic. With funding provided by Canada, the **SDWG secretariat is able to provide additional support related to COVID-19** until 31 March 2021. The secretariat proposes to begin the process of mapping initiatives related to COVID-19 in the Arctic in order to identify what work is being done by others (e.g. AEC, ASM3, AMF), where there are gaps and where the Arctic Council may be able to establish partnerships.

The SDWG proposes the following next steps:

1. Work with partners from both within and outside the Arctic Council to mobilize, modify and expand the SDWG's current projects to respond to the needs of Arctic communities related to the pandemic;
2. Continue to work, with support from the AHHEG and SECEG, to engage the SDWG's networks of experts and knowledge holders to identify short-, medium and longer-term priorities for the SDWG's work related to COVID-19 in the Arctic; and
3. Continue to explore and develop new project ideas identified above (and other project ideas that may emerge) and integrate them into the SDWG's current and future work plans, as appropriate.

Appendix 1: List of Contributors

First Name	Last Name	Organization
Maksim	Chashchin	Institute of Ecology of HSE University, Russian Federation AHHEG representative
Joel	Clement	HKS Belfer Center Arctic Initiative
André	Corriveau	Canada AHHEG representative
Sarah	Cox	Canada
John	Crump	Inuit Circumpolar Council
Tatiana	Degai	ARCTICenter, University of Northern Iowa
Jan	Dusik	WWF
Gerlis	Fugmann	IASC
Erica	Hill	Program Officer, National Science Foundation, USA SECEG representative
Larry	Hinzman	International Arctic Science Committee
Solfrid	Johansen	Norwegian Institute of Public Health
Stefan	Kirchner	University of Lapland, Arctic Centre
Anders	Koch	Statens Serum Institut
Timo	Koivurova	Arctic Centre / University of Lapland, Finland SECEG representative
Yekaterina "Katia"	Kontar	NSF, USA SECEG representative
Bridget	Larocque	Arctic Athabaskan Council
James	Lovell	United States
Liza	Mack	Aleut International Association
Anthony	McDermott	Canada
Frode	Mellemvik	High North Center for Business and Governance, Nord Univeristy, Norway SECEG representative
David	Natcher	University of Saskatchewan, Canada SECEG representative
Steen Løgstrup	Nielsen	West Nordic Council
Embla	Oddsottir	SECEG Chair
Sigurdur	Olafsson	West Nordic Council
Andrey	Petrov	IASSA
Arja	Rautio	Finland AHHEG representative
Gunn-Britt	Retter	Saami Council
Ivar	Schram	Icelandic Red Cross
Peter	Skold	ARCUM, Umea University, Sweden SECEG representative
Jennifer	Spence	SDWG Secretariat
Eydis Kristin	Sveinbjarnardottir	AHHEG Chair
Julian	Wilson	European Commission
Anna	Yletyinen	Finland
Aðalheiður Inga	Þorsteinsdóttir	Iceland

Appendix 2: Analysis of Existing and Potential SDWG Projects

Overview

The table below includes all of the "Knowledge Gaps and Potential Areas for Action" from the briefing document and identifies SDWG's recent, current or potential projects that respond to specific knowledge gaps and potential areas for action, including:

- 1.Recent or existing SDWG projects that directly contribute (colour-coded in dark green ■)
- 2.SDWG projects that, with modifications, could contribute (colour-coded in medium green ■)
- 3.Potential areas where the SDWG might consider new project to contribute (colour-coded in light green ■)
- 4.Potential issues/action that are out-of-scope for the SDWG and/or where other organizations may be better suited to undertake work (colour-coded in yellow ■)

In addition, a **final column identifies potential partners for existing or potential SDWG work and/or organizations that are undertaking or may undertake work in this area.** Some AC Working Groups and other organizations have been added to this column as examples; however, we expect that there are many additional organizations that could be identified.

Legend:

ADI - Arctic Demography Index	Energy Toolkit - Arctic Sustainable Energy Futures Toolkit
AFIC - Arctic Food Innovation Cluster	EPFR - Emergency Prevention, Preparedness and Response Working Group
AHEAD - Arctic Hydrogen Energy Applications and Demonstrations	GEA - Gender Equality in the Arctic
AHHEG - Arctic Human Health Expert Group	IUCH - International Union of Circumpolar Health
AMAP - Arctic Monitoring and Assessment Programme Working Group	L2G - Local2Global
ARENA - Arctic Remote Energy Networks Academy	One Health - One Arctic, One Health
ARF - Arctic Resilience Forum	SECEG - Social, Economic and Cultural Expert Group
Blue Bio - Blue Bioeconomy in the Arctic	SLICA - Survey of Living Conditions in the Arctic
CAFF - Conservation of Flora and Fauna Working Group	Waste Management - Waste Management in Remote Arctic Communities
EALLU - Arctic Indigenous Youth, Climate Change and Food Culture	ZA - Zero Arctic
ECONOR - Economy of the North	

Theme	Knowledge Gaps and Potential Areas for Action from COVID-19 in the Arctic Briefing Document to SAOs	Link to recent or existing SDWG project	Link to SDWG Project/Expert Group (with modifications)	Potential SDWG project	Potential Partners or Relevant initiative(s) better undertaken by other orgs
Available epidemiological data	<ul style="list-style-type: none"> Establish a better understanding of the unique conditions and characteristics of Arctic jurisdictions that may contribute to incidence and case-fatality rates. 	One Health	AHHEG	potential	AMAP, IUCH
Available epidemiological data	<ul style="list-style-type: none"> Ensure that policy planning, development and implementation considers the distinctive impacts of the coronavirus pandemic in Arctic jurisdictions relative to what is observed at the national level by Arctic States. 		AHHEG, One Health	potential	AMAP, IUCH
Available epidemiological data	<ul style="list-style-type: none"> Follow the pandemic specifically in Arctic areas and ensure that data on Covid-19 is organized and easily accessible at a circumpolar level. 				AMAP, IUCH, University of Northern Iowa ARCTICenter
Available epidemiological data	<ul style="list-style-type: none"> Further develop websites and dashboards with underlying population figures and other data, similar to the work done by the University of Northern Iowa ARCTICenter dashboard. 				IUCH, University of Northern Iowa ARCTICenter
Infectious disease monitoring and assessment	<ul style="list-style-type: none"> Harmonize data, including analysis methods and the number of cases, recoveries, hospitalizations and deaths. 		AHHEG	potential	AMAP, IUCH
Infectious disease monitoring and assessment	<ul style="list-style-type: none"> Ensure local surveillance of the virus to support control of the pandemic. Measures include access to testing and central registration of results. 				
Infectious disease monitoring and assessment	<ul style="list-style-type: none"> Allow syndromic surveillance (surveillance of patients with symptoms compatible with Covid-19) to improve overall observation and understanding of the disease. 				
Infectious disease monitoring and assessment	<ul style="list-style-type: none"> Make information available in a central location, such as a website that includes information on Arctic testing capacities and availability, case definitions, actions taken, experiences and best practices to help public health systems throughout the Arctic control the pandemic. 				IUCH, University of Northern Iowa ARCTICenter

Infectious disease monitoring and assessment	<ul style="list-style-type: none"> • Improve coordination and synergies in the governance of experts working in this area. 		AHHEG	potential	AMAP, IUCH
Patient care	<ul style="list-style-type: none"> • Conduct research on why some people get mild symptoms and others get seriously ill from Covid-19, with a specific focus on why the presentation of Covid-19 symptoms are different in Arctic populations. 				IUCH
Patient care	<ul style="list-style-type: none"> • Assess how well telehealth supported access to health care in the Arctic during the coronavirus pandemic. 			potential	
Patient care	<ul style="list-style-type: none"> • Learn from the experiences of health care providers in the Arctic during Covid-19 crisis and see how to enhance support provided to these workers in the post-pandemic period. 				
Patient care	<ul style="list-style-type: none"> • Examine how the shortage of ICU ventilators was handled in different areas of the Arctic. 				
Patient care	<ul style="list-style-type: none"> • Map, analyze and strengthen the health care and emergency capacity in the Arctic. 				
Public health information sharing, awareness and education	<ul style="list-style-type: none"> • Provide a variety of methods of communication to northern communities, such as radio channels and in-person resources. In particular, recognize that some individuals in the Arctic are missed through commonly used channels of communication as they do not have a phone line, TV or internet access. 				
Public health information sharing, awareness and education	<ul style="list-style-type: none"> • Seek to understand how communities that are not connected to mass media solutions receive public health information and how this affects their response to Covid-19 and public health crises. 			potential	
Public health information sharing, awareness and education	<ul style="list-style-type: none"> • Focus on the effects of Covid-19 on nomadic communities that may not have consistent access to mass communication or necessary public services while maintaining conditions of self-isolation. 			potential	

Public health information sharing, awareness and education	<ul style="list-style-type: none"> Draw attention to the perception of northern and Indigenous communities towards state and local government responses to the pandemic. Levels of trust between governments and the communities they serve should be examined to better understand its effects on public health recommendation uptake. 				
Public health information sharing, awareness and education	<ul style="list-style-type: none"> Examine discrepancies between what is understood to be essential services and resources by northern communities and governments. 				
Public health information sharing, awareness and education	<ul style="list-style-type: none"> Examine the use of public health apps to track infections and potential privacy issues surrounding this. 				
Public health information sharing, awareness and education	<ul style="list-style-type: none"> Use public communications case studies to assess and better plan how to convey the urgency and potential impacts of the pandemic to communities. 			potential	EPPR
Public health information sharing, awareness and education	<ul style="list-style-type: none"> Ensure continuity of cultural practices during Covid-19 and continue to maintain contact with Elders and hunt. This fosters mental well-being of northern communities and is a key factor in their continued resilience. 		L2G, EALLU	potential	
Risk management and mitigation	<ul style="list-style-type: none"> Produce specific information and gain knowledge of how northern and Indigenous communities have taken measures to protect against Covid-19. 			potential	EPPR
Risk management and mitigation	<ul style="list-style-type: none"> Compile and assess measures taken to manage the risk of spreading the virus in specific industries (fisheries, oil and gas, mining) and between these workers and nearby communities. 			potential	EPPR
Risk management and mitigation	<ul style="list-style-type: none"> Document historical experiences about how Indigenous and local Arctic residents have reacted to pandemics. 				

Risk management and mitigation	<ul style="list-style-type: none"> Keep track of how easing national and local restrictions influences the spread of Covid-19 in Arctic regions, and what measures are taken to manage and mitigate that risk. 			potential	EPPR
Impacts on physical well-being and mental health	<ul style="list-style-type: none"> Establish emergency programs to ensure food and nutrition security for northern and Indigenous communities, including programs tailored to youth. 				
Impacts on physical well-being and mental health	<ul style="list-style-type: none"> Heighten awareness about stigmatization for people infected by Covid-19 in Arctic communities and develop tools and support programs to reduce its impact on individuals. 			potential	
Impacts on physical well-being and mental health	<ul style="list-style-type: none"> Identify measures to reduce the vulnerability of Arctic communities that are in contact with essential and outside workers traveling to the North. 				
Impacts on physical well-being and mental health	<ul style="list-style-type: none"> Empower communities to manage local issues related to stress and well-being during pandemics, in particular acts of kindness, healthy practices and support for mental health. 		L2G, EALLU	potential	
Impacts on physical well-being and mental health	<ul style="list-style-type: none"> Develop tools to maintain health-related research and address health-related infrastructure needs during a pandemic. 			potential	
Impacts on physical well-being and mental health	<ul style="list-style-type: none"> Share best practices and coordinate policies to help control Covid-19 along with ways to promote well-being in Arctic States. 			potential	
Impacts on physical well-being and mental health	<ul style="list-style-type: none"> Monitor and address the potential increase in substance misuse due to sheltering in place and the inability of individuals to seek support through in-person substance abuse support groups because of physical distancing. 				

Impacts on physical well-being and mental health	<ul style="list-style-type: none"> Assess how the coronavirus has impacted the environment and Arctic communities. 			potential	CAFF, AMAP
Impacts on regional and local economies by sector/industry	<ul style="list-style-type: none"> Focus on data collection and community engaged economic analysis, especially at the regional and local levels. More data are needed to develop a better understanding of the Covid-19 economic impacts in the Arctic. More data are necessary across the wide range of economic indicators and geographical hierarchies, but most urgently at the local/community level. 		ECONOR, ADI, SLiCA	potential	
Impacts on regional and local economies by sector/industry	<ul style="list-style-type: none"> Assess economic impacts in key industries, including the resource sector (extractive industries, fishing), tourism, transportation (accessibility, costs), services (especially basic services, such as healthcare, retail, and public services) and traditional economies. Data and assessment of indirect and induced impacts is necessary. These include indirect changes in supply chains, adjustment in production and transportation costs, reduction in consumer spending and cuts in government contracting, etc. 		ECONOR, ADI, SLiCA	potential	
Impacts on regional and local economies by sector/industry	<ul style="list-style-type: none"> Address food supply and food security in the short- and long-term. More understanding and action are needed in respect to the implications of the Covid-19 pandemics food supply and security, including availability, affordability, and quality of food. 		AFIC, EALLU	potential	
Impacts on regional and local economies by sector/industry	<ul style="list-style-type: none"> Approach traditional and local economies as a source of resilience. Arctic communities may demonstrate strengths and resilience by relying on both traditional economic activities of the Indigenous peoples and localized innovative business solutions. 	EALLU, ECONOR, Blue Bio, AFIC, ARF	SLiCA	potential	
Impacts on regional and local economies by sector/industry	<ul style="list-style-type: none"> Prioritize economic diversification and sustainability for economic recovery efforts. Channelizing economic recovery efforts to support the diversification of Arctic economies and ensuring their sustainability to future crises may constitute the most effective and lasting response to the Covid-19 economic recession. 		EALLU, ECONOR, Blue Bio, AFIC, SLiCA	potential	WWF

Impacts on regional and local economies by sector/industry	<ul style="list-style-type: none"> • Improve physical, digital and financial infrastructure to attain higher resilience of economic and social systems in the Arctic, and support future development of local businesses and communities. 	ZA, Energy Toolkit		potential	
Impacts on regional and local economies by sector/industry	<ul style="list-style-type: none"> • Focus on targeted, equitable, long-term and locally-driven economic recovery investments with an emphasis on most affected population groups, communities, sectors and regions. 		ECONOR, EALLU, Blue Bio, SLiCA	potential	
Impacts on regional and local economies by sector/industry	<ul style="list-style-type: none"> • Invest in local human capital, while providing safe and healthy conditions for the non-resident labor force. Development and retention of the local human capital is a priority for the post-Covid-19 Arctic. However, relying on non-resident labor force is unavoidable in certain regions and sectors. There is a need to understand and implement measures and mechanisms for a safe deployment of these workers in the Arctic under current and future pandemics. 				
Impacts on social and cultural environments	<ul style="list-style-type: none"> • Recognize the opportunity to redesign northern economies and address inequalities by making investments in communities, prioritizing basic infrastructure such as housing, water and sewer, internet and ensuring access to health care. 			potential	
Impacts on social and cultural environments	<ul style="list-style-type: none"> • Acknowledge and address the challenges Arctic Indigenous peoples face from compounded threats to basic health, well-being and cultural integrity. 	L2G, GEA, EALLU	SECEG	potential	
Impacts on social and cultural environments	<ul style="list-style-type: none"> • Support Arctic communities to implement innovative approaches to strengthen cultural practices during and after the pandemic. 		L2G, EALLU, SECEG	potential	
Impacts on social and cultural environments	<ul style="list-style-type: none"> • Ensure that frontline workers have knowledge of Indigenous peoples' cultures and languages to facilitate equal access to services by all inhabitants. To support this objective, future cooperation could include healthcare education and strengthening of educational institutions. 				

Impacts on social and cultural environments	<ul style="list-style-type: none"> • Prioritize investment in education that takes a multi-generational approach and includes increased support for on-the-land activities and skill development as a route to resilience building. 			potential	
Impacts on vulnerable persons	<ul style="list-style-type: none"> • Encourage effective policy action in response to the interplay between a lack of essential infrastructure and community resilience. 	Energy Toolkit, ARF		potential	
Impacts on vulnerable persons	<ul style="list-style-type: none"> • Develop and use common data collection tools and methods specifically targeted at better understanding of how the most vulnerable are impacted by the pandemic. 		ADI	potential	
Impacts on vulnerable persons	<ul style="list-style-type: none"> • Share experiences and best practices between Arctic States, national and subnational levels, to facilitate appropriate policy responses and initiatives intended to protect the most vulnerable from “unintended consequences” of risk management measures put in place to reduce the impacts of the pandemic. 		GEA, L2G	potential	
Impacts on vulnerable persons	<ul style="list-style-type: none"> • Promote initiatives between Arctic States that seek to strengthen communities and support their most vulnerable persons through innovative tools and approaches. 			potential	
Impacts on knowledge production	<ul style="list-style-type: none"> • Seek greater inclusion and funding of Indigenous persons, experiences, vulnerabilities and local and traditional knowledge as well as capacity building projects in Arctic communities. 	AFIC, ARENA, Blue Bio, EALLU, L2G, AFIC		potential	
Impacts on knowledge production	<ul style="list-style-type: none"> • Provide and facilitate citizen science opportunities for researchers and local communities. 	ARENA, Blue Bio, AFIC, EALLU, L2G	SLiCA	potential	
Impacts on knowledge production	<ul style="list-style-type: none"> • Explore how interrupted research activities in the Arctic can facilitate accelerated work to enhance the research capacity of local communities and researchers, and the facilitation of related connections and solutions. 		ARENA, Blue Bio, AFIC, EALLU, L2G, AHEAD	potential	
Impacts on knowledge production	<ul style="list-style-type: none"> • Promote collaboration and cooperation across projects to increase coordinated and integrated activities and solutions. 	One Health, ARF, AFIC, EALLU, SECEG, AHHEG		potential	

Impacts on knowledge production	<ul style="list-style-type: none"> Explore new methods to enhance virtual access, data sharing and harmonization across research projects and activities. 				
Impacts on knowledge production	<ul style="list-style-type: none"> Facilitate involvement through virtual tool and creative solutions for meetings and engagement, including facilitating the participation of persons in connectivity-challenged Arctic communities and community-based participatory research. 	ARENA, L2G, ARF	One Health, EALLU, SECEG, AHHEG	potential	
Impacts on knowledge production	<ul style="list-style-type: none"> Address the lack of studies that explore the circumpolar impact of Covid-19. 			potential	
Impacts on mobility	<ul style="list-style-type: none"> Refine policies and rules to restrict longitudinal (North-South) mobility and enable latitudinal (North-North) mobility. 				
Impacts on mobility	<ul style="list-style-type: none"> Assess the long-term implications of transportation infrastructure (air, water, land), including patterns, dependencies and the risk of spreading the virus in the Arctic. 		ADI	potential	
Impacts on mobility	<ul style="list-style-type: none"> Develop and fund innovative measures to enhance people's capacity for self-sufficiency while North-South mobility measures are in force (e.g., enhancing traditional harvesting and herding practices). 			potential	
Impacts on mobility	<ul style="list-style-type: none"> Recognize Indigenous traditional modes of transportation such as dog teams, reindeer, horses, and respectively designed carriages (sledges, pulkas, etc.) and ways of travelling on the land to increase the prestige of such knowledge. 				
Impacts on mobility	<ul style="list-style-type: none"> Maintain and strengthen connections between very rural/isolated areas and life-support/life-saving essential services in the Arctic, especially with regard to air and marine transportation in times of crises in the Arctic (i.e., remaining operational despite the loss of profit). 				
Impacts on mobility	<ul style="list-style-type: none"> Develop innovative policies and measures to encourage and support northerners to move out on the land for their traditional livelihoods in times of crises, as a means to reduce the vulnerability of Arctic communities. 				

Enabling public infrastructure	<ul style="list-style-type: none"> Initiate a critical and thorough regional examination of the infrastructure gaps and weaknesses that have amplified, and been amplified by, the pandemic. 			potential	Wilson Centre Infrastructure Database
Enabling public infrastructure	<ul style="list-style-type: none"> Increase community capacity to identify and test new water, waste management, energy and housing solutions that meet their needs. 	Waste Management, ARENA, Energy Toolkit, ZA, AHEAD		potential	
Enabling public infrastructure	<ul style="list-style-type: none"> Subsidize the option for communities to safely and securely disperse away from disease vectors such as airports, roads, or crowded facilities during the pandemic. 				
Enabling public infrastructure	<ul style="list-style-type: none"> Increase community capacity to respond to an infrastructure crisis without outside assistance by providing training and youth leadership opportunities. 	ARENA, Energy Toolkit, Blue Bio	AHEAD	potential	
Enabling public infrastructure	<ul style="list-style-type: none"> Develop a regional action plan for overcoming the inequity issues caused by lack of broadband access during disaster response or pandemic emergencies. 			potential	
Enabling public infrastructure	<ul style="list-style-type: none"> Require Arctic investors to contribute to community infrastructure resilience as a “cost of doing business” in the region and incentivize green, resilient investments. 				
Enabling public infrastructure	<ul style="list-style-type: none"> Establish regional milestones for dramatically increasing housing stock for under-served Arctic communities. 				

Appendix 3: Detailed Overview of SDWG Input

Suggestion/Statement/Potential Actions	Additional Details:	SDWG Member
Canada Potential Action #1: Work with ICC-Canada to ensure L2G projects are responsive to COVID-19 context		Canada
Canada Potential Action #2: Work with AHHEG members to shape deliverable for One Health Project that respond to pandemic.	Potential topic: environmental monitoring of waste water to detect presence of virus before human cases become apparent	Canada
Canada Potential Action #3: Potential new project to address knowledge gaps - particularly in public health information and risk mitigation/management.	Led Dr. Sangita Sharma, UofA, Professor in Indigenous and Global Health Research. The project received \$2M in funding from the Canadian Institute on Health Research as a result of its rapid research funding competition for COVID-19 research. It looks at the anticipated and unanticipated consequences of COVID-19 and COVID-19 prevention strategies in NWT and Nunavut among Indigenous peoples in Arctic communities , as well as recommendations from Indigenous Peoples to inform culturally safe approaches to Covid-19 prevention, management, and treatment. An international steering committee has been established with the hope of replicating the study in other circumpolar regions (Alaska- USA, Russia, Finland, and Greenland) and our team has had initial discussions with Dr. Sharma on potentially bringing the project through the SDWG.	Canada
Council needs to pay increased attention to the impacts of the current pandemic while being prepared for a possibility of similar or even worse global and regional scenarios in the future.		Finland
Health impacts of climate change require serious attention of the world.	Climate change facilitates spread of new plant and animal species that may carry diseases, viruses and pathogens previously unknown in the Arctic. These carry risk to the entire Arctic ecosystem and health and wellbeing of people, animals and plants.	Finland

Arctic Council should **establish public health as one of its priority areas** through current and upcoming chairmanships.

Specific Actions:

1. Establish public health as a standing item on the agendas of the SAO and all Working Group meetings.
2. The COVID-19 work should also be high on agenda at the upcoming Ministerial Meeting. We **wish to see concrete decisions** in this regard, and to pave the way for a more **streamlined, coordinated and effective role for the Council**.

Finland

Necessary to have one working group on a clear coordinating position regarding Arctic Council pandemic work. Important to make COVID work more focused.

1. Input from all working groups is needed.
2. **Important to make COVID work more focused.**
3. Most relevant group to coordinate COVID-19 is the SDWG.

Finland

Finland Recommendation #1: SDWG has currently two ongoing projects that should be utilized also in the Covid-19 work: One Health & Local2Global

Finland

Finland Recommendation #2: Assessing role of spread and intensity of epidemics in the Arctic climate is crucial.

New related project initiatives, such as the Russian initiative Biosecurity in the Arctic should also be given more attention.

Finland

Finland Recommendation #2: Assessing role of spread and intensity of epidemics in the Arctic climate is crucial.

To prepare local economies, it would also be useful to understand what the main mechanisms how the virus spreads in industries in the Arctic; this would enhance possibilities to manage the risks beforehand.

Finland

Finland Recommendation #2: Assessing role of spread and intensity of epidemics in the Arctic climate is crucial.

Another important topic is telemedicine.

Finland

Finland Recommendation #3: Cooperation and shared resources across national borders. Best practices should be compiled and disseminated.

Existing researched should be utilized:
Arctic Resilience Action Framework (ARAF) 2017 –2019 Implementation Project Final Project Report could serve as a relevant background.
Natural Resources Institute Finland is currently doing a research on the effects of the coronavirus. The report focuses on the effects of the Covid-19, especially in agriculture, forestry and fisheries, as well as in nature-based tourism and services.
Farm to Fork Strategy, a preparedness plan, as a part of the sustainable food system, will be composed in 2021 in order to ensure EU's food maintenance and safety.

Finland

<p><u>Finland Recommendation #4:</u> At the logistical level, working methods of the Arctic Council should be developed to better address situations where global travel may be limited for a long time; but the work needs to be done without delays.</p>		Finland
<p><u>ICC Recommendation #1:</u> The Arctic Council should create a Pandemic Response Task Force. ICC strongly encourages the SDWG to recommend the creation of this Task Force to the SAOs.</p>	<p>This should be composed of experts nominated by countries, Permanent Participants and Observers to ensure the its response to the pandemic, and its preparations for future pandemics, is carried out in an integrated and coordinated fashion.</p> <p>This task is too large for a single working group to undertake and needs to be seen as a holistic challenge.</p>	ICC
<p><u>ICC Recommendation #2:</u> Task Force should pull together the analysis currently being carried out by all of the working groups and provide recommendations on gaps and next steps/actions.</p>	<p>This should be ready to be reviewed at the SAO meeting in March 2021. Action items should be identified for inclusion in the Reykjavik Ministerial Statement to be approved in May 2021 at the end of the Icelandic Chairmanship.</p>	ICC
<p><u>ICC Recommendation #3:</u> ICC encourages the SDWG to discuss a project to examine circumpolar Indigenous responses to the pandemic and highlight stories not only of the challenges but <i>more importantly that demonstrate resilience</i> .</p>	<p>Such a project should focus on lessons learned and <i>provide examples of where Indigenous Knowledge and institutions supported resilience</i> .</p>	ICC
<p><u>Iceland Recommendation #1:</u> We encourage the leads of relevant SDWG projects (One Health) to identify how they could modify their work to include consideration of the dynamics and impacts of COVID-19 and pandemics in the region.</p>		Iceland
<p><u>Iceland Recommendation #2:</u> Identify pressing and long term priorities for research, monitoring or project work.</p>	<p>SECEG and AHHEG should work in close collaboration with SDWG be tasked with identifying pressing and long term priorities for research, monitoring or project work. This would require a re-commitment by Member States to providing the necessary means for these high level experts to allocate means as required.</p>	Iceland

Saami Council Recommendation #1: We see a need for reinforce/continue focus on the One Health approach		Saami Council
Saami Council Recommendation #2: There is a need to increase the understanding of borderless cultural life. These challenges need to be communicated to decision makers. Closed borders are a main challenge for mobility.	<p>The measures so far put in place do not embrace the challenges faced by people usually operating across these borders. Closed borders, and the fact that people who are across borders can't meet are listed as main challenges.</p> <p>It is also a fundamental challenge that <i>national cultural policy strategies are not adapted to a field that extends across national borders</i> . Today's cultural policy is at the national level, preventing the development of the Sámi arts and culture field, and creates differences between cultural workers, their working conditions and support opportunities.</p>	Saami Council
Saami Council Recommendation #3: Look at innovative new market and development opportunities for all industries. Specifically, these opportunities must ensure that Sámi workers are made visible and are culturally appropriate.	<p>There is a lot of uncertainty in the field especially due to the closed national borders, which affects the field economically and practically, and gives a clear picture that the Sámi cultural field's ecosystem is cross-border and interdependent.</p> <p>National authorities spend a lot of resources on mapping the cultural fields and have initiated crisis measures to strengthen the field. <i>We find that Sámi cultural workers and cultural institutions are not made visible</i> through these various surveys, and the feedback from the sámi cultural field is that the established corona crisis packages and cultural fundings do not fit their purpose.</p>	Saami Council
Saami Council Recommendation #4: The sámi cultural field is now especially in need for knowledge on the effects of the Covid-19.	The Sami cultural field needs follow-ups on mapping of the situation and creating scenario analysis and statistics in being able to map out the opportunities and measures required to support the field.	Saami Council
U.S. review of the spreadsheet resulted in some suggested column shifts for the applicability of the One Arctic, One Health project relative to some of the gaps identified.		USA

Review land-based activities as response to COVID-19	COVID-19 measure = government funding to encourage people to go out on the land – actually improves quality of life and strengthens family relationships and encourages cultural activities, hunting and fishing	AAC
Women and COVID-19	Need to hear more women and discuss gender impacts/gender bias related to parenting and work	AAC
Pregnancy and birth during COVID-19		AAC
Parenting during COVID-19 – pros and cons		AAC
With funding provided by Canada, the SDWG secretariat is able to provide additional support related to COVID-19 until 31 March 2021. The secretariat proposes to begin the process of mapping initiatives related to COVID-19 in the Arctic in order to identify what work is being done by others, where there are gaps and where the Arctic Council may be able to establish partnerships.		SDWG Secretariat

Appendix 4: Summary of Canada's COVID-19 Project Proposal

Capturing the Anticipated and Unanticipated Consequences of Covid-19 and Prevention, Management, and Treatment Strategies Among Indigenous Peoples in Arctic Communities

SDWG Project Recommendation: Submitted by Canada

Canada has identified a potential new project that would squarely address many of the knowledge gaps identified in the *Covid-19 in the Arctic briefing document for Senior Arctic Officials*, particularly in the areas of public health information and risk mitigation and management. The project examines the unique challenges and perspectives of Arctic Indigenous community members related to COVID-19 and will produce culturally safe recommendations to inform COVID-19 health policies and prevention programs to mitigate the risks of future infections in remote and isolated Indigenous communities.

The research will commence shortly in Canada and is led by Dr. Sangita Sharma, University of Alberta, Professor in Indigenous and Global Health Research. This summer the project received a significant award from the Canadian Institute on Health Research (CIHR) as a result of its funding competition for COVID-19 research, scoring in the top 2% of all proposals funded. An international steering committee (Alaska-USA, Russia, Finland, and Greenland) has already been established with the hope of replicating the questionnaire study in other circumpolar regions.

This is a ready-made project that could be practically and quickly replicated in other Member States with minimal resource requirements. It would contribute to a greater understanding of how Covid-19 and government responses have impacted Indigenous peoples across the circumpolar world and produce concrete recommendations that can inform international efforts to collaborate and mitigate the spread of Covid-19 in the Arctic.

Research Topics:

1. The experiences, challenges, and consequences of Covid-19 and Covid-19 prevention, management, and treatment strategies on the health of Indigenous peoples.
2. Recommendations from Indigenous peoples to inform culturally safe approaches to Covid-19 prevention, management, and treatment.
3. The experiences and challenges of implementing Covid-19 prevention strategies, including knowledge gaps, of public health and policymakers.
4. The experiences, challenges, and concerns experienced by healthcare providers in the prevention, treatment, and management of Covid-19, including recommendations to reduce barriers and increase accessibility for Indigenous peoples.

Methodology:

Led by Arctic communities and informed by Indigenous methodologies, the current domestic project will be implemented in 17 communities in the Northwest Territories and Nunavut. The research team will work with a Community Advisory Board (CAB), the Indigenous-led Hoti ts'eeda Strategy for Patient-Oriented Research Unit (Northwest Territories), the Network Environments for Indigenous Health Research (Nunavut), and the Aqqiumavvik Society

(Nunavut), to capture the anticipated and unanticipated consequences of Covid-19 management, treatment, and prevention strategies among Indigenous peoples.

To capture this information, the research team will: 1) Engage communities with the CAB to gather feedback on all research activities, including the questionnaire; 2) Utilize local Community Coordinators and Community Research Assistants, to collect data through telephone interviews with community members, healthcare professionals and policymakers within the communities; 3) Analyze all qualitative and quantitative data with and by the communities; and 4) Synthesize and disseminate the findings using an Integrated Knowledge Translation approach using strategies recommended by CAB, Elders, community partners and Indigenous organizations. A 1 year time-line is anticipated.

All approaches, methods, findings, recommendations, and lessons learned will be shared openly with Indigenous communities and organizations; Indigenous, territorial, provincial and federal governments in Canada; as well as international Indigenous, State and National governments (Alaska-USA, Russia, Finland, and Greenland), and the Arctic Council's Sustainable Development Working Group (SDWG) for the benefit of all Arctic nations.

Current Project Partners:

- Hotiì ts'eeda Strategy for Patient-Oriented Research Unit (Northwest Territories)
- Network Environments for Indigenous Health Research (Nunavut)
- Aqqumavvik Society, Inuit research organization based in Arviat, Nunavut
- Gwich'in Tribal Council
- Government of the Northwest Territories, Government of Nunavut
- Canadian universities, including: McGill, University of Toronto, University of British Columbia, University of Alberta, University of Saskatchewan

International Advisory Council Members:

- USA: Dr. Gary Ferguson, Healthy Communities Consultant, Alaska, KAANGUX[^] Consulting
- Finland: Dr. Rautio, PhD, VP Research, University of Oulu; Dr. Pirkola, MD, PhD, Tampere University
- Greenland: Dr. Moeller, PhD, Mental Health, Associate Director of Centre for Rural/Northern Health Research
- Russia: Dr. Sumarokov, MD, PhD, International Collaboration, Northern State Medical University

Project Lead - Dr. Sangita Sharma:

Dr Sangita Sharma is a Centennial Professor and Endowed Chair of Indigenous Health in the Faculty of Medicine and Dentistry at the University of Alberta and has over 27 years of experience developing, implementing, and evaluating culturally appropriate, community-based health intervention programs and services for children, youth and adults. Dr. Sharma leads the multi-disciplinary Indigenous and Global Health Research Group examining the risk factors for cancer, heart disease, diabetes, and obesity among Indigenous populations in Canada and around the world. As a Principal Investigator, Dr. Sharma has been awarded research funding for over 50 projects and was awarded the Silver Medal by the British Nutrition Society in 2010 for her health intervention program "Healthy Foods North" which was implemented in six communities in the Northwest Territories and Nunavut, in partnership with Inuit and Inuvialuit communities.

Appendix 5: Detailed Overview of Expert and Knowledge Holder Advice

Suggestion/Statement/Information	Additional Information:	Relevant Emergent Themes:	Who?
Important that the Arctic is not left behind in [federal] rebuilding activities		Arctic Resilience	Jan Dusik
Analysis of underlying variables and vulnerabilities		Arctic Resilience; Local Realities and Regional Diversities	André Corriveau
Utilize existing systems and structures for decision-making		Arctic Resilience; Local Realities and Regional Diversities	Jan Dusik; Peter Skold
Local resilience, self-dependence		Arctic Resilience; Mapping	Jan Dusik; Arja Rautio
Communities have been innovative and traditional institutions have emerged		Arctic Resilience; Local Realities and Regional Diversities	Dave Natcher; John Crump
WWF Comment #1: The compendium shows a good representation of COVID-related concerns in the work under current SDWG projects, which confirms that specific COVID challenges are actually linked to wider sustainability challenges in the Arctic, on which the Arctic Council and stakeholders worked before the pandemic. At the same time, the analysis also exposes a degree of fragmentation of SD (and SDWG) engagement, again perhaps just highlighted through the COVID context.		Building partnerships; governance	Jan Dusik Lead Specialist, Sustainable Development WWF Arctic Programme
Invest in communities, leadership, training and Indigenous institutions		Capacity building	Jan Dusik
Focus on growing local capacity and capabilities moving forward		Capacity Building; Mapping Unintended Consequences;	Larry Hinzman

Local capacities are affected by national dependencies		Capacity building; Mapping unintended consequences; COVID-19 as a mobilizer	André Corriveau
Recovery programs & funding must be effective and culturally appropriate		COVID-19 as mobilizer; Arctic Resilience	Jan Dusik
Stress test on public infrastructure		COVID-19 as mobilizer; Arctic Resilience	Joel Clement
Job growth potential - local and sustainable long-term job creation		COVID-19 as mobilizer; Arctic Resilience; Mapping	Jan Dusik
Subnational data for EU countries only; it also has data structured for integration on other portals.	COVID website link	data	Julian Wilson Deputy head of unit European Commission Joint Research Centre
Global COVID resource	This tool is intended for global and high level risk only. It will need to be complemented by additional analysis and data.	data	Julian Wilson Deputy head of unit European Commission Joint Research Centre
Regional data is needed for initial conditions and divergent paths of COVID		Data	Anders Koch; Andrey Petrov
Collaborative data sharing and collection		Data	Arja Rautio; Andrey Petrov
Periodical descriptors and ongoing/updated database		Data	Frode Mellemvik; Arja Rautio

priority is to support the availability of updated information on COVID-19 in the Arctic	The AC could do an invaluable effort in making available real-time figures for COVID-19 cases in the different Arctic regions by infected, hospitalized, persons in ICU and death, both in numbers and in rates. Perhaps the AC cannot in itself provide such data, but they can support data platforms etc. like the Arctic COVID tracker.	Data	Anders Koch
Capacity building of data (qualitative & quantitative)		Data; Capacity building	Andrey Petrov; Eydis Sveinbjarnardottir
Need for emphasis on pandemic planning systems .		Emergency preparedness planning	Peter Sköld
WWF Recommendation #3: Emphasis on ensuring continuity and connectedness of science. A <i>continuous surveillance of changes in the Arctic, including the traditional and Indigenous knowledge</i> , is important for optimising the responses and preventing negative evolutions in the future.	In this context, an initial debate within EPPR on how they should adjust their work planning to emerging risks is very inspiring, and may merit consideration in SDWG too.	Emergency preparedness planning	Jan Dusik Lead Specialist, Sustainable Development WWF Arctic Programme
WWF Recommendation #1: Useful to indicate links of the recommendations and gaps to proposed/considered projects, and how they could be tailored to respond to the COVID assessment	This could serve as a compass for the project developers, as well as for the incoming Russian chairmanship of the Arctic Council and definition of future workplan of SDWG	governance	Jan Dusik Lead Specialist, Sustainable Development WWF Arctic Programme
WWF Recommendation #4: When mapping is completed by all working groups, <i>defining coverage and overall gaps in mapping</i> .	That's where observers like WWF can indicate how we can engage in design and implementation of further steps, including strengthening the cross-cutting among AC working groups, which we can see from our bird eye external perspective.	governance; partnerships	Jan Dusik Lead Specialist, Sustainable Development WWF Arctic Programme

Resource that could warrant circumpolar collaboration to document and investigate further.	<u>COVID-19: The Hidden Impact on Mental Health and Drug Addiction</u>	Human Health	André Corriveau
Increase in suicides		Human Health	Eydis Sveinbjarnardottir; Embla Eir Oddsdottir
Lack of access to medical services (such as cancer treatment, addiction centres, mental health services)		Human Health	André Corriveau
Limited capacity + syndromic surveillance		Human Health; Capacity Building; Mapping Unintended Consequences;	Anders Koch
Need for analysis on health outcomes (COVID and non-COVID inclusive)		Human Health; Data	Arja Rautio
Emphasis on new COVID strains – implications for tracking and vaccinations		Human Health; Data	André Corriveau
Mapping changing challenges through phases		Human Health; Data; Mapping	Eydis Sveinbjarnardottir
<u>West Nordic Council Recommendation #1</u> : Keep focus on usual agenda - food security and health in the Arctic, it is still of great importance to continue democratic dialogue and remember the cultural aspects in the Arctic.		Human Health; mapping	West Nordic Council
Impacts of social changes – increased loneliness; what does this look like in smaller, remote communities?		Human Health; Mapping	Lisa Mack
Ability to harvest and use local food practices		Local realities	Dave Natcher; John Crump
No solution or policy will be successful without local engagement and an understanding of local knowledge systems		Local realities	Dave Natcher; Andrey Petrov
Challenges with mobility of people from Southern areas coming to remote areas to isolate (economic impacts, health concerns with spread)		Local realities; mapping	Andrey Petrov; Peter Skold

Some of the research gaps can also be addressed by ongoing or future projects. This includes ECONOR, WAGE, and AHDR III. Andrey is happy to discuss these opportunities and provide more input on what can possibly be done to advance COVID-19 work in the Arctic.

mapping

Andrey N. Petrov
President, International Arctic Social Sciences Association (IASSA)
Chair, Social and Human Working Group, International Arctic Science Committee (IASC)

Another item is the impact of COVID-19 on Arctic science. IASSA, IASC, UArctic and APECS were planning to have a special panel on this at the Arctic Circle.

mapping

Andrey N. Petrov
President, International Arctic Social Sciences Association (IASSA)
Chair, Social and Human Working Group, International Arctic Science Committee (IASC)

WWF Recommendation #2: Actions must consider the broader perspective - multi-faceted climate change impact, changes in biodiversity, which will have cumulative effects, with the COVID impacts and the COVID response, into the future and the threats to the Arctic and its population.

mapping

Jan Dusik
Lead Specialist, Sustainable Development
WWF Arctic Programme

Tourism is a large challenge (mobility)

Mapping

Peter Skold

Changes in socialization/loneliness

Mapping

André Corriveau

Examine mobility, economic impacts, social impacts

Mapping

Joel

Mapping unintended consequences

Mapping unintended consequences;

John Crump

<p>WWF Comment #2: WWF has commissioned a study to evaluate the COVID recovery plans of the eight Arctic Council members in terms of their greenness in the Arctic context, which should propose recommendations for greening, as well as identifying potential for green jobs in the Arctic. This work is going to be completed between now and end of November, and we will inform SDWG on the outcomes, while also including the SDWG constituency in providing insights into our analysis through a dedicated set of interviews in each country.</p>		mapping; building partnerships	<p>Jan Dusik Lead Specialist, Sustainable Development WWF Arctic Programme</p>
<p>Mapping to observe long term trends and disruptions (incorporate indigenous and traditional knowledge)</p>		mapping; local realities	Jan Dusik
<p>West Nordic Council Recommendation #2: Focus on the consequences of COVID for young people, especially those living in the rural areas of the Arctic.</p>	<p>Conditions for young people in the Arctic should be high on the agenda. These youngsters are even more vulnerable than youngsters in the towns and urban areas. The effect of the COVID means that this group is particularly hard hit in terms of work, study, and travel opportunities.</p>	Youth	West Nordic Council
<p>Education system impacts (youth lens)</p>		Youth; Mapping	André Corriveau