

December 2020 Symposium Proceedings

Planning Resilient Communities and Adapting Rural Health Services in British Columbia

Responding to climate change
and ecosystem disruption



Rural Coordination
Centre of BC





Message from the Director

Dr. Stefan Grzybowski, MD, CCFP, FCFP,
MCISc. *Director, RHSRNbc; Co-Director,
Centre for Rural Health Research*

Thanks to all of you for taking the time to join us on the 2020 RHSRNbc Symposium on climate change and ecosystem disruption.

I would firstly like to thank Arlin Cherian for her commitment and partnership in putting on the symposium. She is amazing. I would also like to thank the staff and students at the Rural Health Services Research Network including Diane Kim, Sila Rogan, Urvee Karve, and Evonne Tran for the excellent contributions made to the organization and presentation of the symposium. The planning committee included Dr. Robert Woollard, Dr Paivi Abernathy and Dr. Elizabeth Wiley and their “just in time” contributions to the event were very much appreciated. I would like to thank the Rural Coordination Centre and specifically Leslie Carty and Dr. Ray Markham for their solid organizational support to the network and the symposium. I would also like to thank the Joint Standing Committee and specifically Dr. Alan Ruddiman for their support for the event. Special thanks to Elder Roberta for blessing the event and leading us in prayer and to all the panelists who collaborated on this event. The ongoing support of the Department of Family Practice is also acknowledged and appreciated.

Sincerely,

Stefan Grzybowski

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Introduction

The Rural Health Services Research Network of British Columbia (RHSRNbc) hosted a research symposium focused on *'Enhancing rural resiliency and adapting rural health services to respond to climate change and ecosystem disruption'* in partnership with the Rural Coordination Centre of BC (RCCbc), and the Department of Family Practice on **Nov 30th – Dec 1st, 2020**.

The goal of the event was to strategize how we can collectively enhance the resiliency of rural communities to respond to climate change and ecosystem disruption.

Special thanks to the Symposium Planning Committee members who provided significant contributions to the structure and design of the symposium.

- Dr. Robert Woollard
- Dr. Paivi Abernethy
- Dr. Elizabeth Wiley

Healthcare partners, academics, community members, youth and others gathered virtually to engage in important conversations regarding climate change resilience, mitigation and adaptation, to build new relationships, identify shared priorities and co-create strategies on how the rural health community in BC can respond to climate change and strengthening resilience in rural communities. The virtual gathering was blessed and welcomed by the Coast Salish matriarch and Elder, Roberta Price from Coast Salish, Snuneymuxw, and Cowichan Nations on Monday, Nov 30th.

The objectives of the event included:

1. To build co-creative relationships to collaboratively enhance rural resiliency and strengthen rural health.
2. To explore strategies for enhancing the resilience of rural communities to respond to climate change and ecosystem disruption.
3. To identify information, data, research questions, policy initiatives and change strategies that will contribute to sustainable rural communities and health systems.
4. To empower and distribute the outcomes of the symposium in the form of recommendations, research plans and an accountability framework.



Introduction

The outputs that we seek from the symposium are:

1. Stronger relationships between participants
2. Ideas about better use of data to inform rural community understanding and advocacy related to climate change and ecosystem disruption
3. Researchable questions that are important to answer and will provide evidence to support enhancing resiliency for rural communities
4. Policy initiatives that will strengthen rural community resiliency
5. Ideas about an ongoing virtual infrastructure that will support how we collectively move forward

To address the objectives of the symposium, the agenda was divided into four sessions over two days: 1) Amplifying youth voices for climate justice, 2) Community voice and system perspectives, 3) Exploring rural health strategies to respond to climate change and ecosystem, and 4) Accountability framework and summary of progress. Each session commenced with panel presentations followed by discussion and Q&A period. See panel presentation breakdown by session and detailed agenda in Appendix B.

The themes, questions and ideas generated through the discussions held at the symposium are captured in this document. We hope it will fuel a process of inquiry over the coming years. As a next step, the Network scheduled a working group to review the themes and recommendations to discuss further actions. Contact information of those interested in networking is now available at the [RHSRNbc Symposium webpage](#).

This report includes a brief background section on climate change and ecosystem disruption impacts in BC, and a synopsis of thematic discussions developed during the discussions on the day of the symposium. Furthermore, the program schedule, attendee information and learning materials are added as Appendices (A-C) to this report.



Who attended?

The symposium was divided into four sessions between two days (Nov 30th - Dec 1st). There were a total of 110 registrants from 45 different communities across BC, Canada and internationally. Each session had 5-7 panelists who led the sessions with short presentations followed by discussions.

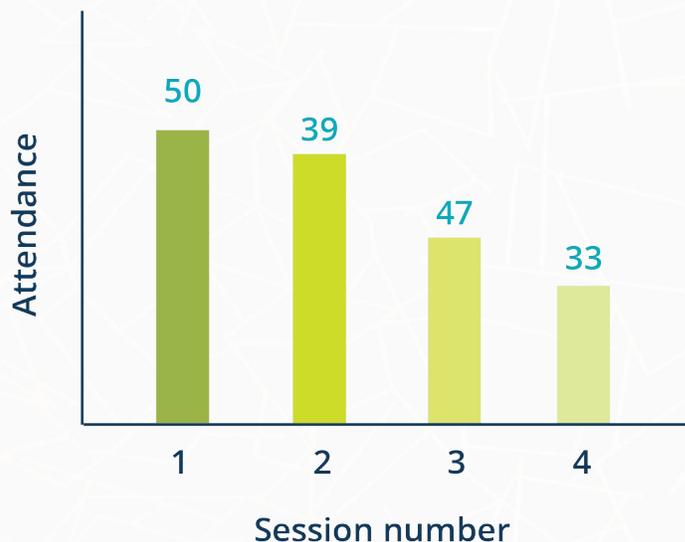


Registrants from over
45 communities
across BC, Canada + internationally

110
Total registrations

24
Panelists out of 110
participants

Attendance breakdown by session

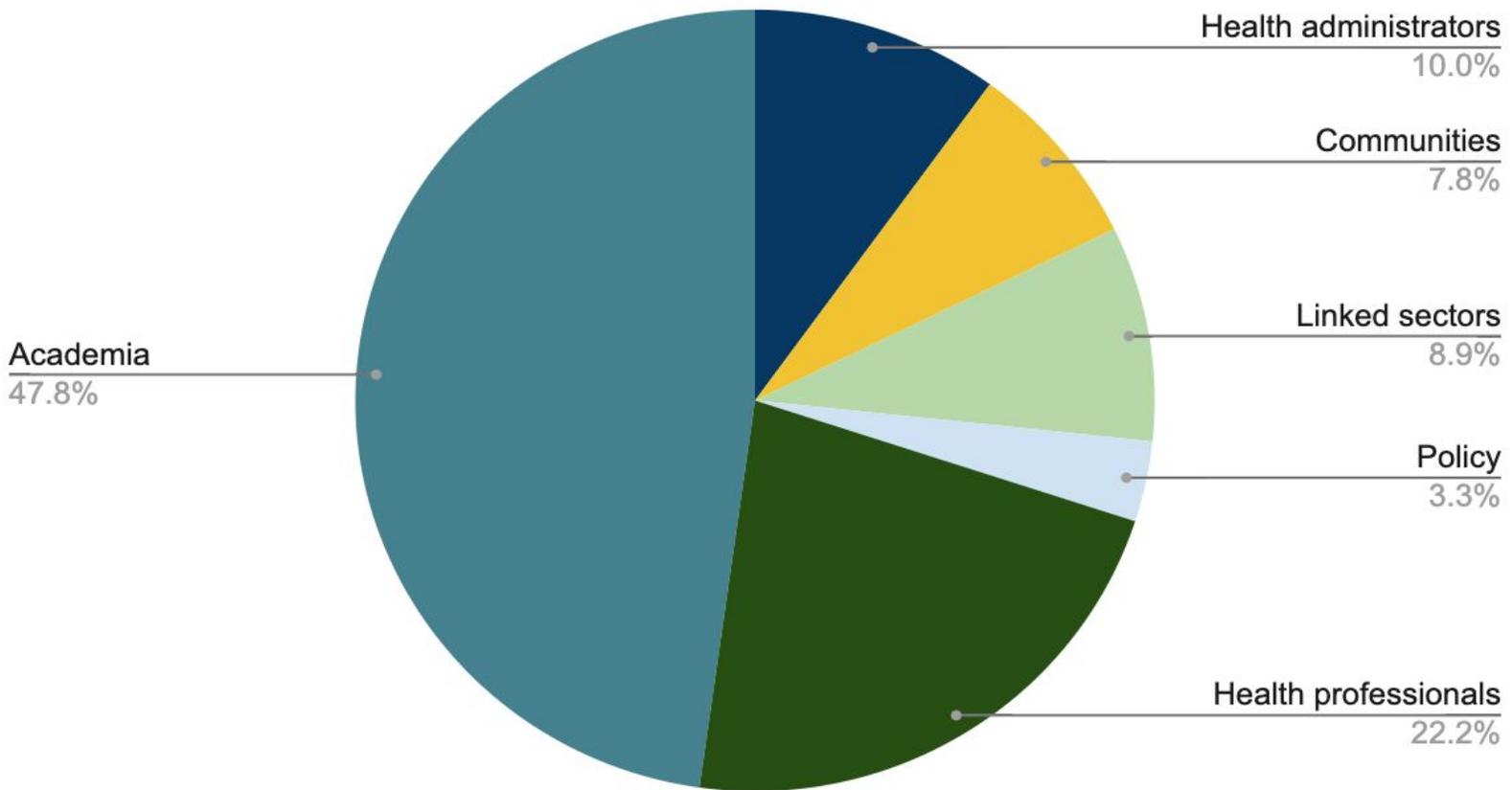




RCCbc Pentagram Partner Legend

Participants demographic breakdown based on RCCbc pentagram partner legend.

Symposium professional demographics



Background

Climate change

The rising of global temperatures is most likely the result of human industrial activities, such as the increased use of transportation, operation of factories, and the burning of fossil fuels. This increase causes major changes in our weather pattern, such as longer periods of droughts and unusually hotter summers and winters. Between 1948 and 2016, Canada has experienced a **1.7°C** increase in its average annual temperature, with greater increases in Northern regions [1]. Higher temperatures can also increase the melting of glaciers that increase sea levels, which in turn can cause heavier rainfalls and floods. Projected data shows that BC may experience more than a 30% decrease in precipitation during the summer, and drier weathers will increase the chances of drought and severe forest fires [2].

Other climate risks in BC include seasonal water shortage, ocean acidification, severe flooding and storm surges. The changes in temperature and weather patterns from climate change can lead to disruption in our ecosystem. This includes loss of animal and plant species, loss of natural resources, morbidity, injury diseases or hospitalization, psychological impacts, loss of life, loss of economic productivity and cost to the provincial government [4]. Disease-causing pests and viruses such as the mountain pine beetles may also become more active with the changing ecosystem services [3]. Many regions of BC are already experiencing these disruptions, and it is predicted that rural and remote regions will have a greater impact than the urban counterparts.

[1] Vincent LA, Zhang X, Brown RD, Feng Y, Mekis E, Milewska EJ, et al. Observed Trends in Canada's Climate and Influence of Low-Frequency Variability Modes. *J Climate* 2015;28:4545–60. <https://doi.org/10.1175/JCLI-D-14-00697.1>.

[2] Collins M, Knutti R, Arblaster J, Dufresne J-L, Ficheret T, Friedlingstein P, et al. Long-term Climate Change: Projections, Commitments and Irreversibility. *Climate Change 2013 - The Physical Science Basis: Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* 2013:1029–136.

[3] Embrey S, Remais JV, Hess J. Climate Change and Ecosystem Disruption: The Health Impacts of the North American Rocky Mountain Pine Beetle Infestation. *American Journal of Public Health* 2012;102:818. <https://doi.org/10.2105/AJPH.2011.300520>.

[4] Ministry of Environment and Climate Change Strategy. Preliminary Strategic Climate Risk Assessment for British Columbia 2019. <https://www2.gov.bc.ca/assets/gov/environment/climate-change/adaptation/prelim-strat-climate-risk-assessment.pdf>.

Background

Ecosystem mediated events

Climate change and ecosystem disruption not only affects our environment but will increase health risks for British Columbians. Such examples include a higher incidence of skin cancer from stronger UV exposure, and lung diseases from air pollution and forest fires. In addition, the emergence of viruses and bacteria from ecosystem disruption can also introduce new infectious diseases. This makes climate change not only environmental but also a public health concern. COVID-19 is a recent example of an emerging disease caused by human-induced ecosystem disruption that exposes humans to new viruses from wild animals. It is in our interest to address these rising health concerns, particularly in rural and remote B.C., to ultimately build healthier communities. We believe that collaborations between key stakeholders of the pentagram partnership (i.e. communities, health administrators, health professionals, policymakers, and academic institutions) are important, and the Symposium is intended to provide a safe and encouraging environment to share each other's knowledge and experiences. The RHSRNbc will continue to support the partnerships that stem from the Symposium, to promote the health and resiliency of B.C.'s rural and remote communities during the progression of climate change and ecosystem disruption.

To learn more about this topic, check out our background papers [here](#).

Panel Presentations

Session 1

Amplifying youth voices for climate justice

1. Youth perspective on climate change – Past, Present, and Future – **Diane Kim**
2. Climate adaptation and Indigenous knowledge – **Sila Rogan**
3. Transition for rural communities to low-carbon economies – **Erin Knight**
4. Climate change and population health- **Montana Blum**
5. Forest fire action plan – **Holly Gale**
6. Youth voices in Government policy – **Ciara Robison**
7. Using GIS for mapping climate change and health impacts – **Urvee Karve**

Session 2

Community voice and systems perspectives

1. Community wellness and wildfire recovery project – **Laura Dewar**
2. Protecting Mother Earth – A Cree perspective – **Darlene Sanderson**
3. Land based healing and wellbeing – **Blaine Grinder**
4. Could the UN's Sendai Framework guide health reform and climate change management? – **George Abbott**
5. Koh-learning in our Watersheds: Transforming education by connecting students, communities & waterways – **Margot Parkes**

Panel Presentations

Session 3

Exploring rural health strategies to respond to climate change

1. Engaging in thoughtful and inclusive conversations about climate change – **Dr. Warren Bell**
2. Understanding mental health impacts of climate change in rural communities – **Dr. Nelly Oelke**
3. PaRx: A prescription for patient and planetary health – **Dr. Melissa Lem**
4. Climate change and health – What next? Working with and learning from BC First Nations – **Dr. Paivi Abernethy**

Session 4

Accountability framework, summary of progress

1. How did I get to ‘the End of My Rope’ and Engage in Bold Climate Action – **Dr. Tim Takaro**
2. Community perspectives in climate mitigation and disease prevention – **Dr. Ilona Hale**
3. Building essential skills, relationship building, and working on policy frameworks – **Dr. Courtney Howard**
4. Translating climate change evidence to champion advocacy along with communities and Indigenous allies – **Dr. Alan Ruddiman**
5. EGO vs ECO: Re-orienting to ‘living systems’ (ecosystems) and equity – **Dr. Margot Parkes**
6. Need for emergent behavior among health care, academia and municipalities – **Dr. Bob Woollard**
7. Public policy and public health – **Dr. George Abbott**
8. Role of Doctors of BC Environmental committee – **Dr. Elizabeth Wiley**

Identified Themes

Session 1: Amplifying youth voices for climate change

Hope and enthusiasm in moving towards an action oriented future

- a. Sustainable recovery from COVID-19
- b. Increased local responses through COVID-19 – are people more involved now that we've seen the effects of decreased emissions related to economic slowdown?
- c. Potential for amenity migration to rural communities increasing human resource capacity for transition
Note: Gender difference in youth climate action (young women strongly represented) Implications?

Need for data and research from an intersectional lens

- a. Importance of GIS to track health/climate change data
- b. Collaborative climate change research
- c. Long-term effects of climate change response (ex. effect of fire retardants in soil health, biodiversity, and human health)
- d. Community-based participatory actions to understand each community's climate change context, opportunities and threats

Identification of gaps across the educational spectrum

- a. Climate Change and Ecosystem Disruption needs to be imbedded in the curricula across the board
- b. Climate change and anthropogenic ecosystem disruption education in medical schools (currently < 1% of the curriculum)

Political path forward needs to be facilitated and actively engaged

- a. Resourcing of youth organizations – more space for youth voices in policy/ government initiatives
- b. For adults: educate, listen, and provide resources for youth
- c. Intergenerational collaboration flagged as key

Identified Themes

Recognition of expertise in place

- a. Respect for Indigenous knowledge
- b. Respect for community based understanding

Rural community dependence on resource extraction needs to transition to alternative economic drivers

- a. Transition economy as part of large-scale transformation.
- b. Fear of change - Rural communities need to be given “agency” to plan their transition process to mitigate disruption.
- c. Increased reliance on renewable energy sources
- d. Increased focus on clean industry

Rural communities need robust support from all levels of government— financial backing, assessing risk, deploying information sharing support terms etc.

- a. Establishing equitable strategies to address disproportionate impact of climate change on some communities
- b. Emergency preparedness strategies to explore and scale up where appropriate
- c. Enhancing access to High-speed internet (bridging digital divide)
- d. Utilizing stimulus dollars in efficient and effective ways – taking into account 1) equity lens 2) agency of communities in deciding how funds will be used (expertise in place) 3) provide training to improve human capital capabilities
- e. Prevention & response for wildfires and floods and supporting affected communities

Two-eyed seeing to enhance adaptation strategies

- a. Nature and ecosystem-based adaptation solutions to protect communities from climate change impacts

Identified Themes

Session 2: Community voice and system perspectives

Mental health impacts (trauma) related to stresses of rural natural hazards

- a. Strategies to maintain wellness - Need to consider co-existing social/medical issues for example, fire fighters are already overwhelmed with responding to substance abuse emergencies.
- b. Create an intersectional mental health working group to address gaps in mental health services.
- c. Recognizing the importance of supporting vulnerable populations (ex. disabled, seniors)
- d. Potential solutions include community navigators, strengthening Canadian mental health association impacts, community outreach event funding (these can also contribute to community stability through enhanced employment)

Important to consider social dialogue in rural communities — *how do we keep up with this dialogue or community engagement during the COVID-19 period?*

- a. Community strength lies in reacting to problems together
- b. Importance of communities' understandings being reflected by elected leaders
- c. Changes in service delivery methods

Define broader cultural indicators of health and well-being

- a. Indigenous laws; protection for all of life
- b. Team-based primary care, dietary & lifestyle counselling, virtual care
- c. Connecting with place
- d. Holistic measures

Identified Themes

Indigenous participation in early education

- a. Indigenization of education – challenging to teach the culture especially at the school-level, encompassing the entire culture will take more than a half hour slot. Will need more children and youth engaged.
- b. Need to consider that what is good for Indigenous children good for all children
- c. Decolonizing education
- d. Significance of culture & language in curricula
- e. Schools as important and fundamental infrastructures/connecting points
- f. Respecting/giving credit to traditional knowledge carriers
- g. Interacting with our ecosystems through reciprocity/sustainability rather than as a storehouse commodity for our use (upstream – education, traditional teachings to address climate change; downstream – adaptation)

Learning and re-learning on how to connect with place

- a. Watershed metaphor - It all comes down from the headwaters so that is where the work needs to be done. Cascade of effects.
- b. Shifting from role as medical professionals to thinking of wellbeing & health in a larger context (people, communities, ecosystem) – moving beyond hospitals into the communities
- c. Indigenous people cannot be decolonized in a vacuum - whole system should be decolonized
- d. Round table discussions (youth, teachers, communities, health care etc.)
- e. 'Eco' – importance of home

Transformation into a sustainable economy —recognition of water as a sacred element

- a. Transforming risk/vulnerability to strength/resilience

Identified Themes

Government priorities. Bring up the problem but have the solution in your back pocket. Prevention strategies are generally the first to be sacrificed in times of need.

- a. Need to review the difference in funding between wildfire response vs prevention
- b. Heavy focus on acute care vs prevention
- c. Sendai Framework message to the government (“build back better”)
- d. Importance of resource distribution

How to create something beautiful from what many people discard? Bring back the ingenuity of experiences to the next generation

Identified Themes

Session 3: Exploring rural health strategies to respond to climate change

Transformation needs to occur through a horizontal framework. We have to diminish the vertical hierarchy, inequality, social, and economic inequity

- a. Engaging in thoughtful and inclusive action in every level of society
- b. Need to 'rebuild' our activities
- c. Health professionals need to get off of their pedestals – climate change cannot be addressed through direct control or 1:1 interaction that they are used to in clinics, but only through collaboration (the entire community is now our patient, not just those in clinics)

Mental health problems are significant in rural and amplified by the aging population, and the stresses associated with climate hazards and now the pandemic. Need data on prevalence, service use, effectiveness of interventions for mental health

- a. Addressing poverty, lack of stress-coping strategies, trauma, social isolation
- b. Identifying responses to simultaneous presentations of climate change outcomes (ex. natural disasters, COVID) which exacerbate mental health
- c. Community-partnered approach (community members/leaders, health/social care providers etc.)
- d. Importance of proactive strategies – ensuring that communities have resources and support to deal with these issues
- e. Overcoming lack of resources (ex. funding, recruitment/retention of workers)

Identified Themes

Overcoming stigma

- a. Significant stigma associated with mental health concerns in rural communities because of the lack of anonymity.
- b. Also, stigma associated with climate change advocacy as advocacy can be seen as a threat to the industrial economic base of the community.
- c. Use a citizen science approach to research and examination
- d. More engagement during informal interactions than formal interviews

Asset-based community development model

- a. Despite all colonial remnants – need to identify & build on their strengths and align with their values
- b. We easily re-victimize Indigenous communities, and hearing more about the vulnerabilities can be counter-productive (change framing to help them see the opportunities – i.e., enhance resiliency)

Have meaningful conversations

- a. Importance of cultural practices, community cohesion, education & natural resource security
- b. Appreciating physical, spiritual, mental and emotional health
- c. Shifting our mindset – start by knowing ourselves better (goals, lineage, interests etc.) then start conversation with others
- d. Addressing power asymmetries – need to work in a way that communities feel comfortable, collaborations move at the speed of trust
- e. Sharing power of decision-making
- f. Framing issues & priorities in a way that communities can justify being a part of

Identified Themes

The benefits of exposure to nature

- a. The evidence and the intervention in the form of written prescriptions.
- b. Modelling is important (as parents & health care professionals) – more likely to be trusted if people prescribing nature seem to be connected to nature themselves
- c. Impact of life stress is lower in rural children with nearby nature vs those w/o nature (also, children with nature experiences are more likely to become environmentalists as adults)
- d. Focus advocacy on the effects on their own health & family's health, which often increases motivation for behavioral change
- e. Creative strategies to engage with screen-tied populations (ex. Children, youth)

How can we empower rural communities to action through policy and research?

- a. Collaboratively defining the problem & work together towards full societal health
- b. Helping communities see opportunities on how to act
- c. Community-driven research
- d. Importance of innovation – health involves working with different parts of communities (ex. school, police)

Importance of scaling initiatives— fostering collaborations between policy and local initiatives

- a. Don't bring a problem, bring solutions – need concrete proposals (plan, budget & involved partners)
- b. Easy to align the ideas, but harder to implement them to move the system in the right direction
- c. Provide resources and support to communities to develop their own solutions

Overall Themes

Session 4: Accountability framework and summary of progress

Collaborative approach to inspiring transformative change

- a. Need engagement from these groups: Physicians, academics, students, Health administrators, policy makers, Indigenous, rural and remote communities, municipalities
- b. Build networks and relationships rooted in courage and humility – collaborative not competitive process
- c. Well planned climate action requires partnership, advocacy and change strategies
- d. Work together as ‘whole systems’ – not a top-down approach but a horizontal approach.
- e. Couple with existing groups and actions and avoid creating parallel process - How can the health community be a valued partner to ecosystem-oriented processes like land use planning, watershed governance and land-based education?

Shift from individual level focus to community level care

- a. Community-based disease prevention and mitigation
- b. Approach to change needs to be reflected at Health authority and hospital levels
- c. Wellbeing at community and individual level are interconnected
- d. Respect for Indigenous and local community knowledge

Role of funding and support

- a. Climate change advocacy is framed at an individual level. This fosters fear, burden of responsibility and inadequate support to move forward.
- b. Courage can be built with mentorship and competency. Build competencies; teach and build skills such as how to tell story, analyze data, how to write op-eds, relationship with media, understanding policy frameworks etc.
- c. We can't achieve scale without funding

Overall Themes

Education and policy transition

- a. Fundamentally we need education and consequent understanding of the impacts of climate change and ecosystem disruption to be able to translate to policy
- b. Concept of schools as being incubation for change in inspiring people - amplifying youth voices.
- c. Well planned climate action requires partnership, advocacy and change strategies
- d. Ensure rural voices are heard before policy implementation.
- e. Rural stimulus investments with rural equity lens.

Leadership and policy action

- a. Important to bring this to the BC Government agenda
- b. Need leadership from Doctors of BC – take well-articulated proposal to the government.
- c. Need partnerships and collaboration with the Government.
- d. Addressing enhancing of rural resiliency and strengthening rural health
 - Expansion of team-based primary care to rural, remote, and Indigenous communities– virtual care, resources for disease prevention and remediation of health
 - Deployment of stimulus dollars to support fire protection of rural and Indigenous communities.
- e. Identify 3-10 clear goals and plans
 - Identify key people to work with
 - Identify potential funding pathways
 - Lay out next steps

Recommendations

CCEDARRbc

(Climate Change and Ecosystem Disruption Adaptation Responses in Rural British Columbia)

Goal: To enhance the resiliency of rural communities and rural health services in response to climate change and ecosystem disruption.

Recommendations:

1. The striking of a working group to lead this work forward. The working group membership would include voices from youth, rural communities, Indigenous people, and the Pentagram Plus partnership (terms of reference to follow).
2. That the working group should support the writing and submission of a funding proposal to support the working group and the projects and directions that are approved by the working group.
3. That the working group should advocate for transformative activity in areas focused on enhancing rural resilience specifically:
 - a. Educational Initiatives across the educational spectrum enhanced our collective understanding of the impacts of climate change and ecosystem disruption (CCED) on rural communities.
 - b. Identifying and facilitating the collection and organization of data relevant to understanding the impact of CCED on rural communities.
 - c. Identifying important researchable questions relevant to enhancing rural resiliency and conducting relevant research.

Recommendations

- c. Identifying important researchable questions relevant to enhancing rural resiliency and supporting the answering of those questions.
 - d. Identifying and supporting policy initiatives needed to enhance rural resiliency to CCED.
 - e. Enhance and support mitigation /adaptation strategies identified by rural health professionals to green-up rural health infrastructure/ health services
- 4) The working group will advocate for and support initiatives that will enhance the capacity of rural health services to support the rural populations served. These initiatives will include:
- a) The education of rural generalists
 - b) The strengthening of rural interprofessional team based Generalism by supporting the acquisition of enhanced skills leading to the provision of enhanced services in rural communities.
 - c) The widespread diffusion and adoption of telehealth services to augment and support local care, not to replace it.
- 5) The working group will support the enhancement of emergency preparedness for rural communities respecting expertise in place, innovative solutions and the scaling up of proven initiatives.



Concluding remarks

The RHSRNbc team thanks everyone for their participation and contributions to our symposium on Planning Resilient Communities and Adapting Rural Health Services in British Columbia. Over the course of the two day event, we were able to bring together stakeholders from diverse geographic and professional backgrounds to discuss how we can collectively enhance the resiliency of rural communities to respond to climate change and ecosystem disruption.

While the symposium accomplished many of its objectives, such as generating meaningful partnerships and discussions, our work in addressing the health impacts of climate change and ecosystem disruption has only just begun. We have created a working group which will develop recommendations for implementing some of the ideas brought forward in the symposium, and will continue to take steps to strengthen climate change and ecosystem disruption responses in rural communities across British Columbia.

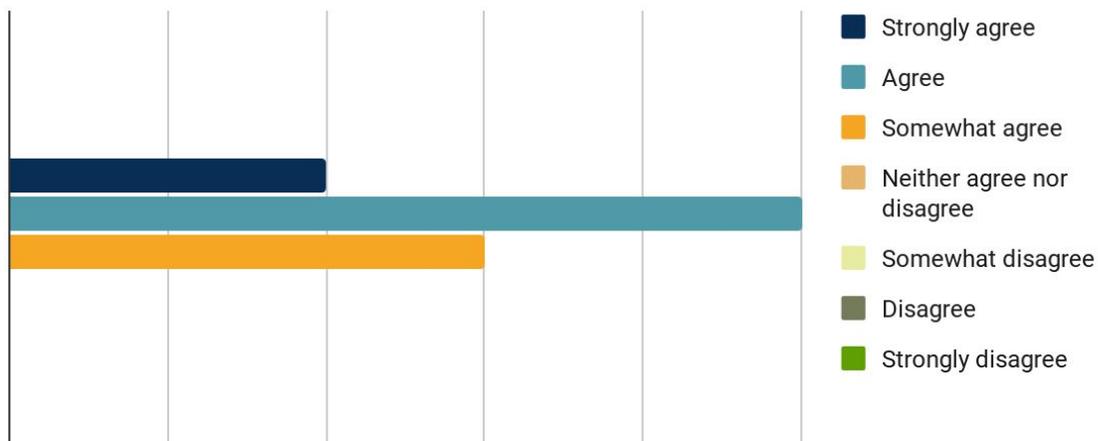


Appendix A

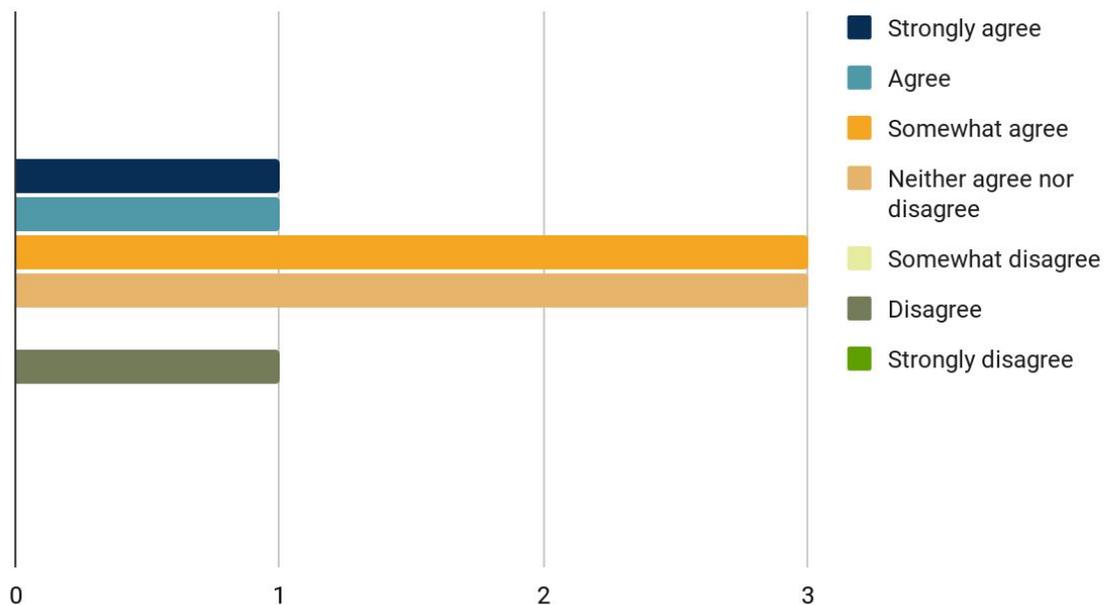
Post Symposium Evaluation Results

Feedback from our evaluation (n = 10)

The stated objectives were achieved during the symposium

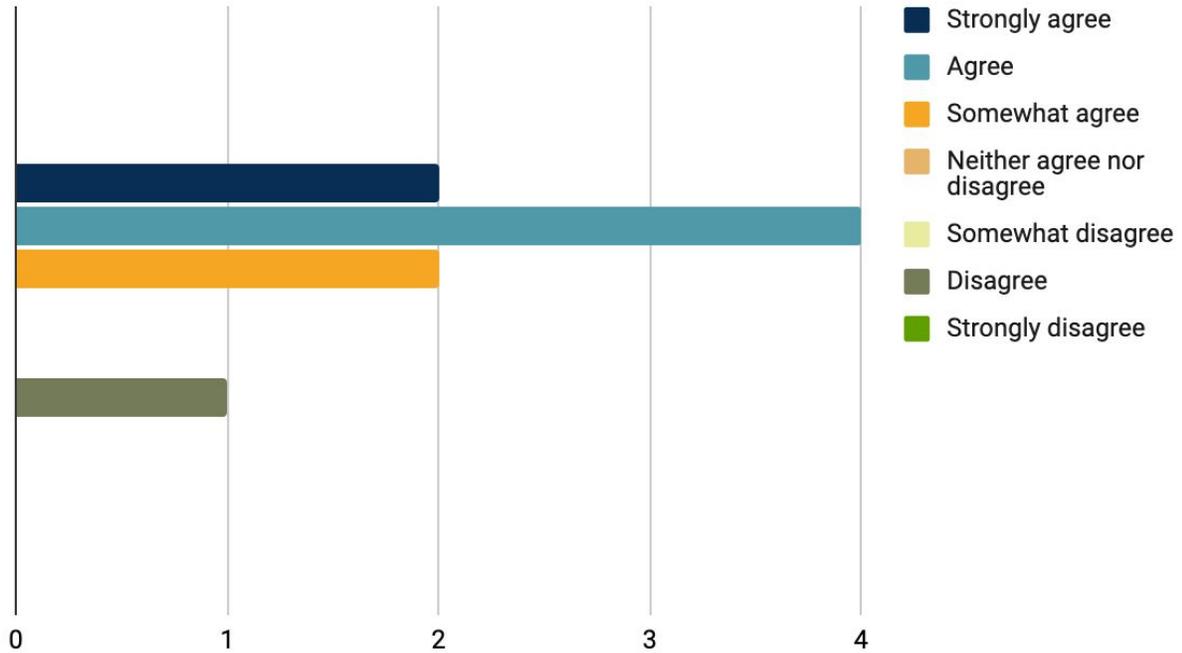


I made connections that will lead to future collaborations

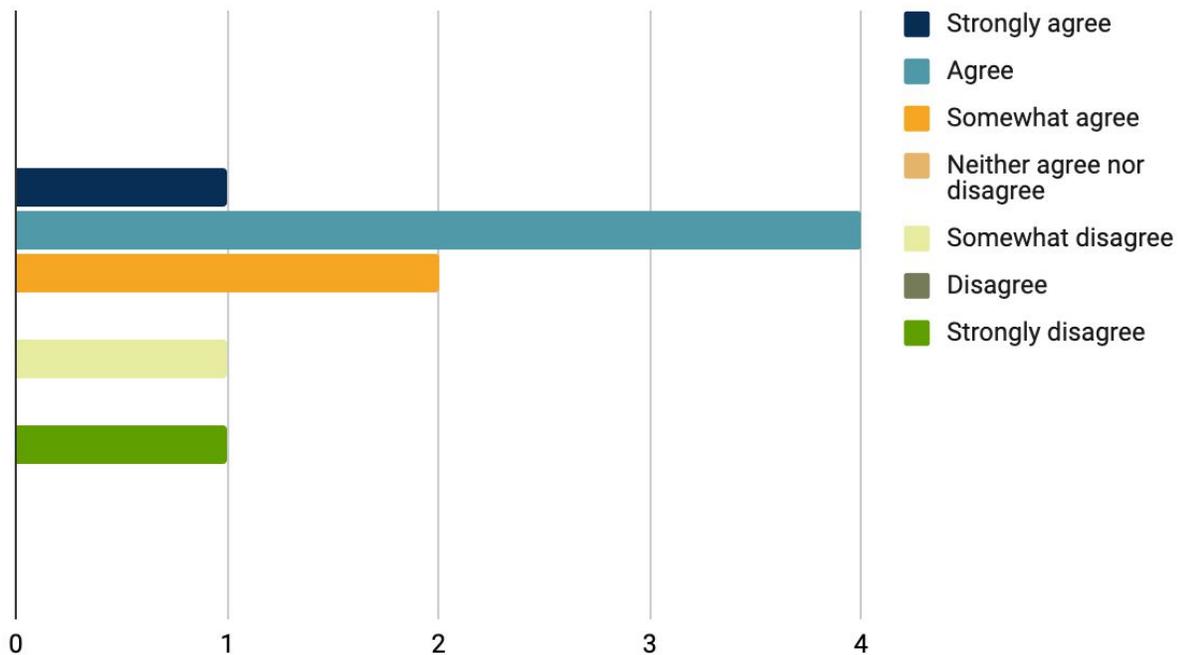


Post Symposium Evaluation Results

Attending this symposium will influence my future work

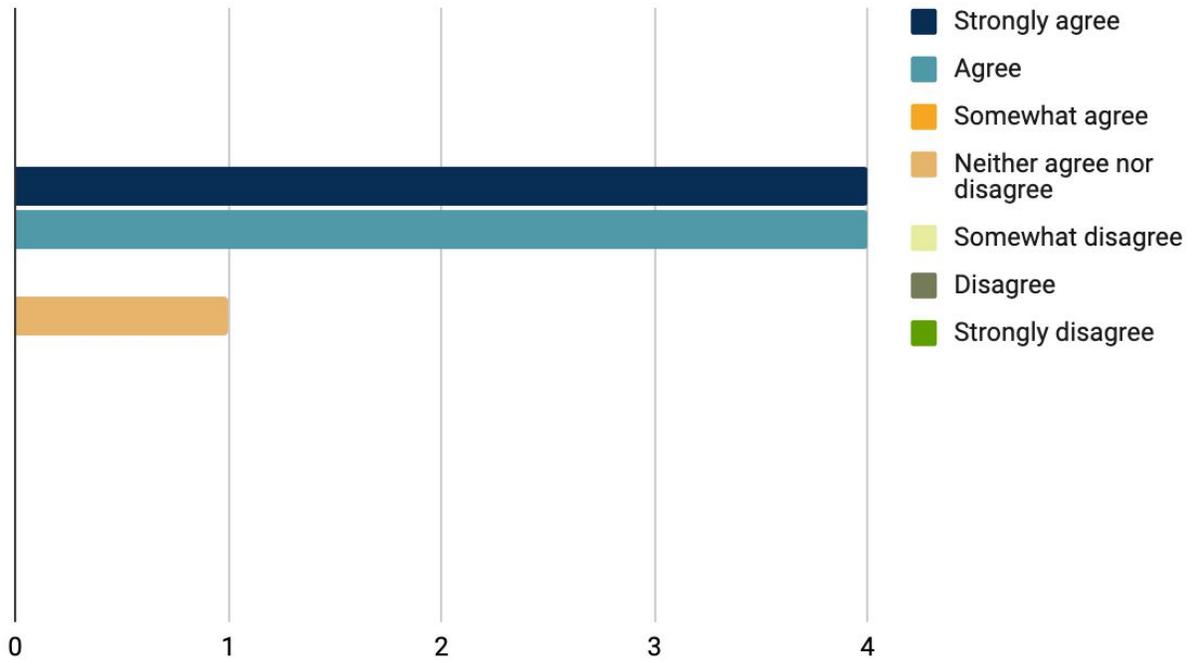


There was enough time for discussion at the symposium



Post Symposium Evaluation Results

Overall, I'm glad I attended



Post Symposium Evaluation Results

WHAT DID YOU LIKE MOST ABOUT THE EVENT?

It provided a line of thinking and doing that was kind of hazy, but it is now coming clearer.

Multiple outlooks, and diversity of speakers

The diverse group of people that came together to discuss ideas and the range of information that was presented. The presenters were also great.

Some really great speakers and inspiring discussion.

I was inspired by the youth. I would have liked to learn more about two eyed seeing and working with Indigenous communities.

I liked the opportunity I had to express the way I feel about climate change and the chance to become more educated on things I didn't know about as well as meet other people as passionate about the environment as I am.

WHAT DID YOU LIKE LEAST ABOUT THE EVENT?

Lack of young people at last session.

No real place or time to network. I didn't have the time to participate in most of the symposium.

Sound problems but that was out of the conference's control.

There was nothing I really had an issue with during this event.

Not enough time for participation from non-panelists.

I was unhappy that the youth-centred portion of the symposium was held during the day, making it very difficult for youth such as myself to attend - despite the fact that my youth organizing group was reached out to about attending the event. I was unhappy that the presentation portion of the event went so long. I couldn't stay the whole time but I stayed for an hour and 40 minutes and it didn't look like the presentations were wrapping up any time soon.

Post Symposium Evaluation Results

DID YOU PERCEIVE ANY BIAS, WHETHER INDUSTRY, OR OTHER IN ANY PART OF THE PROGRAM?

100% of respondents answered no.

Climate change needs to be more at the forefront of doctors minds.

Young and old should collaborate. Start at municipal level.

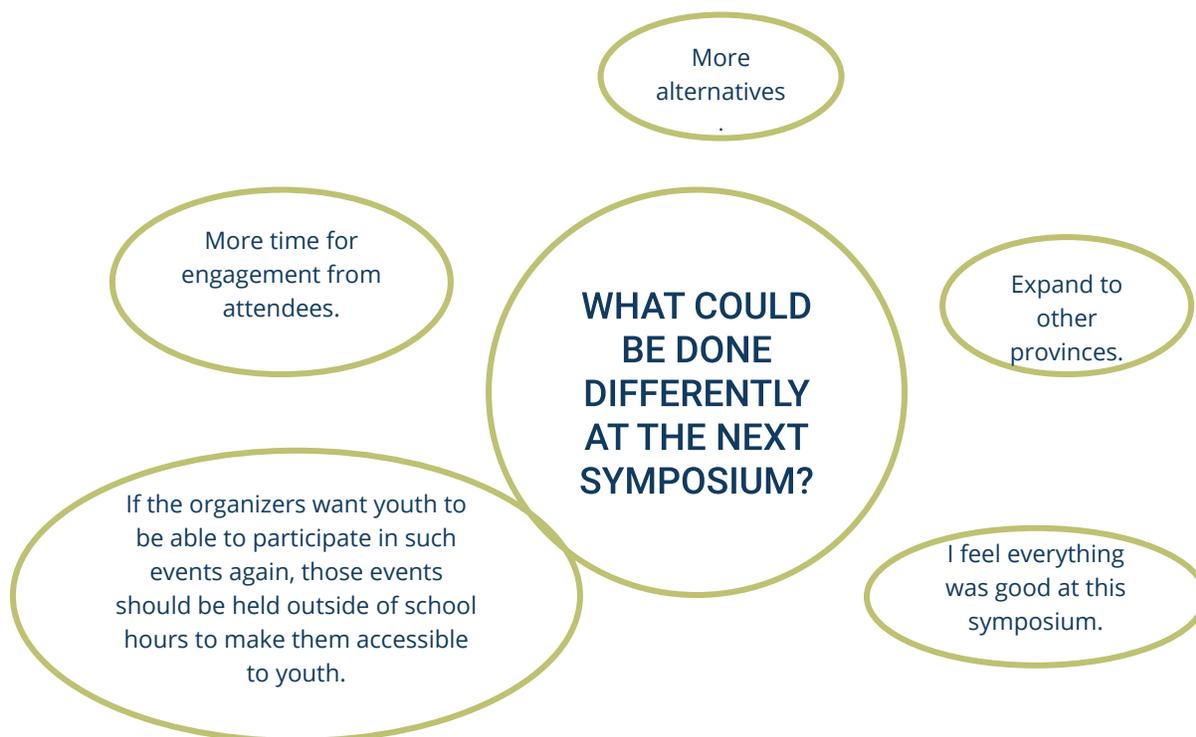
WHAT WAS YOUR BIGGEST TAKE-AWAY FROM THE SYMPOSIUM?

Collaboration is important.

I had to leave part way through the final summary session and am hoping to be able to review a recording of it. I was interested in the discussion about the role of the physician in climate change advocacy.

That collaborations between generations as well as listening to Indigenous voices is important to the creation of climate policy.

Post Symposium Evaluation Results



Appendix B

Agenda

The RHSRNbc Research Symposium 2020 was hosted over two days and included four sessions. The detailed agenda is outlined below.

November 30th, 2020

Session 1: 9:00 am PST- 11:00 am PST

Session	Time	About
Welcome and introduction	9:00 am-9:10 am (10 minutes)	<i>Moderator: Stefan Grzybowski</i> <i>Facilitators: Arlin Cherian, Evonne Tran</i> To introduce the context of ecosystem disruption (climate change and COVID-19) in rural BC and health impact
Opening session and traditional welcome	9:10 am-9:30 am (20 minutes)	<i>Elder Roberta Price</i>
<i>Panel presentation: Amplifying youth voices for climate justice</i> Youth panelists present on topics of climate change, how it impacts our current and future generations, mitigation and adaptation strategies we have in place at provincial and local levels to address climate change and ecosystem disruption.	9:30 am-10:15 am (45 minutes)	Panelists: Diane Kim Sila Rogan Montana Blum Holly Gale & Ciara Robison Erin Knight Urvee Karve
<i>Open discussion- Q&A</i>	10:15 am-10:55 am (40 minutes)	Identify key issues of concerns to youth, researchable questions or opportunities for new initiatives to be generated.
Conclusion	10:55 am-11:00 am (5 minutes)	Closing remarks
Break	11:00 am-1:00 pm (2 hours)	

Agenda

November 30th, 2020

Session 2: 1:00 pm PST- 2:30 pm PST

Session	Time	About
Introductions and welcome: Community voices and system perspectives	1:00 pm-1:10 pm (10 minutes)	Moderator: Stefan Grzybowski Facilitators: Arlin Cherian, Sila Rogan
<i>Panel presentations</i>	1:10 pm-1:50 pm (40 minutes)	Panellists: Dr. Margot Parkes Laura Dewar Dr. George Abbott Dr. Darlene Sanderson Blaine Grinder
<i>Open discussion- Q&A</i>	1:50 pm-2:25 pm (35 minutes)	This is an opportunity for members from rural, remote and indigenous communities to share their understanding of the issue, health priorities and concerns. Identify key issues of concerns to rural communities in regard to mitigation/ adaptation efforts, researchable questions or opportunities for new initiatives to be generated.
Closing remarks	2:25 pm- 2:30 pm (5 minutes)	

Agenda

December 1st, 2020

Session 3: 9:00 am PST-10:30 am PST

Session	Time	About
Introductions and welcome: Exploring rural health strategies to respond to climate change	9:00 am-9:10 am (10 minutes)	Moderator: Stefan Grzybowski Facilitators: Arlin Cherian, Evonne Tran
<i>Panel presentations</i> Exploring rural health strategies to respond to climate change and ecosystem disruption: – Indigenous ways of knowing and being – Community voice – Generalism – Enhanced Skills – Telehealth – Emergency preparedness	9:10 am-9:45 am (35 minutes)	Panellists Dr. Paivi Abernethy Dr. Warren Bell Dr. Melissa Lem Dr. Nelly Oelke
<i>Open discussion- Q&A</i>	9:45 am-10:25 am (40 minutes)	
Conclusion	10:25 am-10:30 am (5 minutes)	Closing remarks
Break	10:30 am- 1:00pm	

Agenda

December 1st, 2020

Session 4: 1:00 pm PST-3:00 pm PST

Session	Time	About
<p>Introductions and welcome: Accountability framework and summary of progress</p>	1:00 pm-1:10 pm (10 minutes)	<p>Moderator: Stefan Grzybowski Facilitators: Arlin Cherian, Evonne Tran</p>
<p><i>Panel presentations</i> Exploring how we can practically take on responsiveness in our work.</p> <p>Answering the questions around how we can take on the challenge in how we can embed climate change action response into our own agenda?</p>	1:10 pm- 2:10 pm (60 minutes)	<p>Panelists</p> <p>Dr. Courtney Howard Dr. Elizabeth Wiley Dr. Margot Parkes Dr. Robert Woollard Dr. Alan Ruddiman Dr. Tim Takaro Dr. George Abbott</p>
<p><i>Open discussion-</i> Research Questions to Understand Rural Health Strategies Responding to Climate Change</p>	2:10 pm- 2:45 pm (35 minutes)	<p>We will be brainstorming research questions that need to be answered and prioritizing these research questions according to their importance and relevance to the current healthcare context.</p>
Closing remarks and next steps	2:45 pm- 3:00 pm (15 minutes)	Closing remarks

Appendix C

Learning materials and resources

Planning Resilient Communities and Adapting Rural Health Services in British Columbia Responding to Climate Change and Ecosystem Disruption

Our background document explores current evidence and identifies gaps in the literature around climate change and adaptation, as well as identifies innovative ways research can contribute to supporting adaptation strategies for rural health services and healthy communities in response to a changing environment.

[Chapter 1: Assessing the impact of climate change on the current situation in British Columbia](#)

[Chapter 2: Climate mitigation and prevention strategies](#)

[Chapter 3: Climate adaptation strategies](#)

Coming soon: Chapter 4: Rural Health Strategies to Respond to ecosystem disruption in BC

Building climate resilient communities: a virtual story map

Our interactive story map visually summarizes the data collected on climate change and ecosystem disruption in British Columbia, as well as the stories of rural residents of British Columbia responding to those impacts.

<https://storymaps.arcgis.com/stories/89e97ce2e9f3485cbb325a8c760e5c05>

Other resources

- [Climate action map. Government of Canada 2019.](#)
- [B.C. Ministry of Environment and Climate Change Strategy. Preliminary Strategic Climate Risk Assessment for British Columbia. Ministry of Environment and Climate Strategy; 2019.](#)
- [Ostry A, Ogborn M, Bassil KL, Takaro TK, Allen DM. Climate Change and Health in British Columbia: Projected Impacts and a Proposed Agenda for Adaptation Research and Policy. Int J Environ Res Public Health 2010;7:1018–35.](#)
- [McAslan A. Community Resilience: Understanding the Concept and its Application 2010.](#)

Youth climate action

- Podcast:
<https://www.americaadapts.org/episodes/2020/10/12/k-12-climate-action-the-role-of-schools-for-climate-awareness-with-laura-schifter>
- Climate strike Canada: <https://climatestrikecanada.org/en/get-involved>
- UN Climate Change Dialogues: <https://unfccc.int/cd2020>
- Extinction Rebellion - Health Professionals Follow up on twitter @xrhealthpros
Facebook: <https://www.facebook.com/xrhealthpros/> Email us:
xrhealthprofessionals@gmail.com
- News sources UBC Enviro Med www.thenarwhal.ca www.thetyee.ca
- @sustainabiliteens on Instagram
- CAPE Committees:

CAPE Ontario Committee: capeontariovolunteers@gmail.com

CAPE Quebec Committee: quebec.acme@gmail.com

CAPE BC Committee: barzelai@mail.ubc.ca

CAPE AB Committee: jvipondmd@gmail.com

Policy related resources

- UN Sendai Framework
<https://www.undrr.org/news/building-back-better-sendai>
- UNISDR Build back better https://www.unisdr.org/files/53213_bbb.pdf

- Op-ed by George Abbott - Could America's New Direction Provide Policy Inspiration for BC and Canada? :
<https://med-fom-rhsrnbcsites.olt.ubc.ca/files/2020/12/Public-Policy1.docx>
- Government policy work in UK on "rural proofing"
<https://www.gov.uk/government/publications/rural-proofing>
- Senator Rosa Galvez recovery plan:
<https://rosagalvez.ca/en-clean-and-just-recovery/>

Data related to the Wildfires/Flooding locally

- The Chilcotin "The Fire Awakened Us"
<https://www.fness.bc.ca/resources/news/the-fire-awakened-us-tsilhqot-in-report-2017-wildfires>
- Wildfire and Flooding Review Panel report ("Addressing the New Normal")
<https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/embc/bc-flood-and-wildfire-review-addressing-the-new-normal-21st-century-disaster-management-in-bc-web.pdf>
- Cariboo Regional District "Cariboo-Chilcotin Wildfires 2017" (Butterfly Effects report)
https://cariboord.ca/uploads/wildfirereport/Wildfire_Consultation_Report_Appendix.pdf

Koh- learning project

- Website:
<https://www.unbc.ca/integrated-watershed-research-group/koh-learning-our-water-sheds>

A pledge for planetary health to unite health professionals in the Anthropocene

- Lancet paper:
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)32039-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32039-0/fulltext)

Re-orienting to 'living systems' (ecosystems) & equity. Moving from 'hazards' to 'home'...
<http://www.sustainableideas.it/2013/02/ego-vs-eco-2/>

Working together for WHOLE Systems: Approaching Well-being and Health while Oriented to Living Systems & Equity" Cha. 5 in Stephens (2020)"Animals, Society & Health: Health Promotion, Harm Reduction, and Health Equity in a One Health World")
<https://www.routledge.com/Animals-Health-and-Society-Health-Promotion-Harm-Reduction-and-Health/Stephen/p/book/9780367336226>

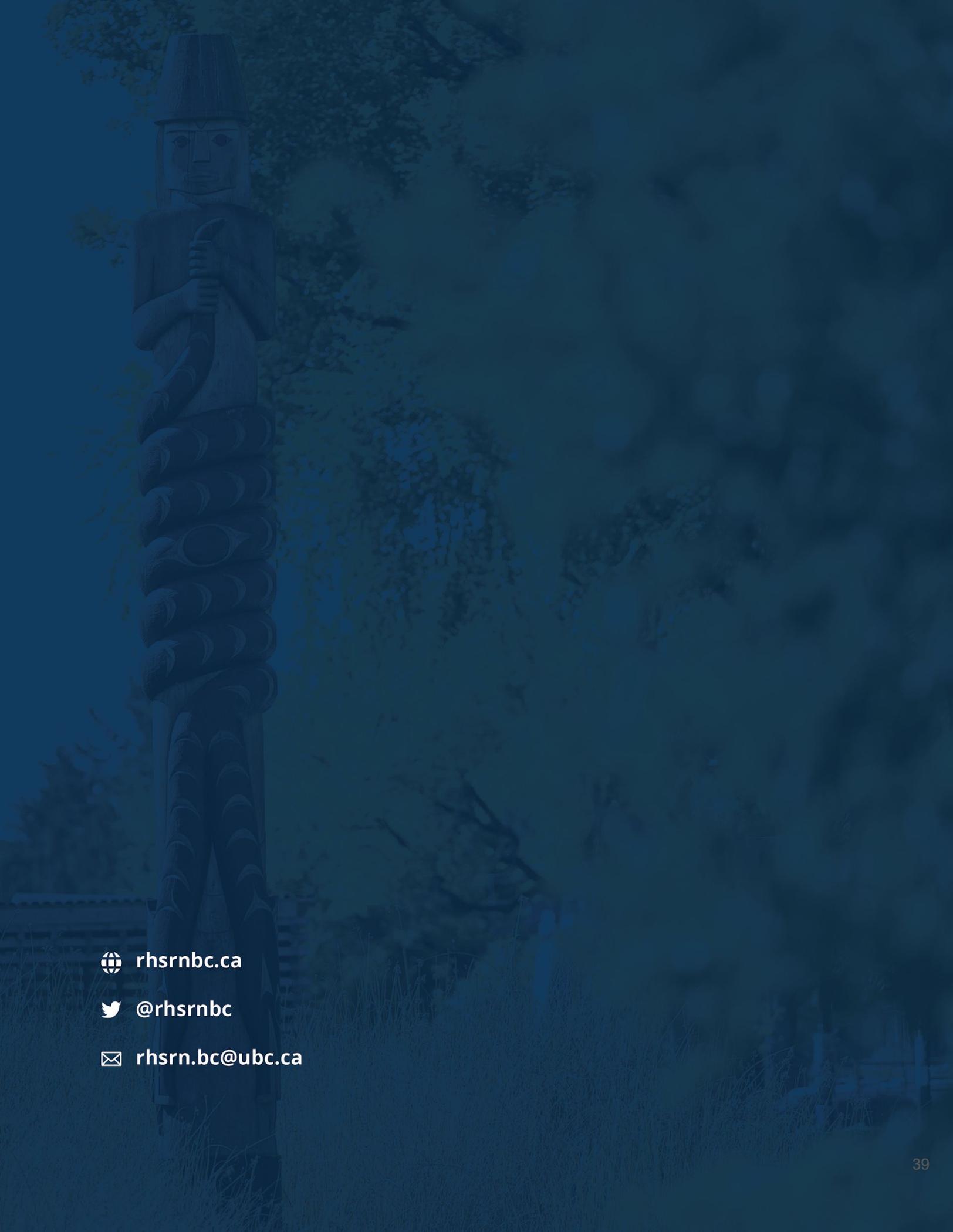
Parks Foundation Nature prescription initiative

Please reach out if you interested in a rural research initiative.

- Website: www.parkprescriptions.ca
- Contact: melissa.lem@bcparksfoundation.ca

Events/ conference you may like:

- InVIVO Planetary Health Conference:
<https://www.invivoplanet.com/2020-meeting.html>
- “Ecohealth in Action” Webalogue Series: <https://ecohealthkta.net/webalogues/>
- “Learning and Re-learning for Planetary Health” series - Education for Sustainable Healthcare special issue of “Medical Teacher” (2020)
<https://www.tandfonline.com/toc/imte20/42/10?nav=toCList>



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