

# {{ECHO}} Update

## Environment, Community, Health Observatory Network:

*Strengthening intersectoral capacity to understand and respond to health impacts of resource development*



## Welcome to our ECHO Network Quarterly Update!

The first quarter of 2019 has seen some exiting ECHO Network activities and we are looking forward to a year focused on sharing integrative tools & processes to address the cumulative impacts of resource development and extraction.

- The **2019 ECHO Network Annual Meeting (May 27-31)** will see many of our network members travelling to Moncton, NB. Our coming meeting will be an opportunity to reflect on our work to date and the challenges & opportunities ahead as our project increasingly focuses on moving our work into action across ECHO and beyond.
- We recently published our first collectively authored **ECHO Network manuscript** in the journal *Challenges*. You can find the manuscript here <https://www.mdpi.com/2078-1547/10/1/22> (see also “Publications of Interest” section for the full reference).
- Early 2019 has seen a series of **ECHO Network meetings & exchanges**, including a Team Watersheds meeting on disturbance mapping, a Knowledge to Action workshop, hosted by the NBEN/UdeM Regional Case and discussing their Risk and Benefits calculator (see also NBEN/UdeM Update), and a **CANUE-ECHO** meeting about Environment and Human Health, Data and Equity. If you are interested in learning more about any of these meetings, please email us at [echonetwork@unbc.ca](mailto:echonetwork@unbc.ca).
- As our **ECHO Network Learning Community** continues to grow, we are continually challenged to capture our learning and communicate it to our various teams, working groups, and the Network at large. On March 6, the ECHO Team Learning & Impact and members of the Research Design Working Group came together to reflect on our learning journey. In reflection of this and prior meetings, we are currently circulating an **ECHO Network-wide survey** to engage our members in learning about how ECHO has (or hasn't) influenced your work to date. We are also engaged in conversations with Regional Case team members to further deepen our understanding of learning occurring in respective regional cases specifically. A newly founded **Team Communications** has begun the process of developing a guide to inform communications about ECHO learnings with the wider Network.
- **Team Equity** has been fueled by conversations at the CANUE-ECHO meeting mentioned above and both Team Operations and the Trainee Team have engaged in conversations about equity challenges and opportunities as it relates to the ECHO Network and to work crossing environment, community, and health sectors. The growing team is looking

forward to hearing from ECHO Network members on equity not only through the Network survey but also through engaging in equity conversations at the upcoming ECHO Annual Meeting.

- **Team Learning & Impact** is actively engaged in Regional Case conversations and is looking forward to deepen our understanding of learning & impact across the ECHO Network at the upcoming Annual Meeting.
- Several ECHO Network Members recently presented posters at the UNBC Research Week, including Alex MacDonald (u-grad Research Assistant), Christiana Onabola (ECHO PhD student), and Diana Kutzner (Research Manager). You can read up on their presentations by [clicking here](#) or [email us](#) for details.
- May Farrales, along with support from Alex MacDonald and Makayla Skrlac, recently engaged us in the first “**Network Virtual Coffee Chats and Comic Jam**”. This activity was an excellent opportunity to collaborate in an arts-based project with a fellow ECHO Network member which built on some of the insights gained from last year’s photovoice activity. We are looking forward to results from this activity.
- Our connections with ECHO partners in the **Oceania region** are continuing to develop. Margot Parkes, Leona Prince, and NBEN/UdeM Regional Case team members, Céline Surette and Annika Chiasson, recently attended two Aoteroa/NZ events which had active engagement from our Oceania regional case & ECHO Co-Applicants, including: Helen Moewaka Barnes, Pierre Horwitz, Margo Greenwood as well as Collaborators from Australia: Tony Capon, Aaron Jenkins; from Aotearoa/NZ: Garth Harmsworth, Tim McCreanor; and from Canada: Heather Castleden, Jess Masuda. The two events included the ECHO-supported the **Ma Uta Ki Tai** event and the following **World Conference of the International Union for Health Promotion and Evaluation** at Rotorua (<http://www.iuhpe2019.com>).
- On Feb 25th, the “**Koh-Learning in our Watersheds: Transforming learning in School District 91 by connecting students, waterways and communities**” project was launched at the Nechako Valley Secondary School in Vanderhoof, BC. The “Koh-Learning in our Watersheds” is a UNBC-SD91 partnered project founded on the benefits of learners, educators and partners learning together about ‘Koh’ – a word for waterway in Dakelh, the main language of the First Nations within whose territories the SD91 operates. At the event, SD 91 students showed a mini-documentary film on water monitoring on Murray Creek. You can read [more here](#) or watch the video by [clicking here](#). The Koh-learning partnership is closely linked to the ECHO Network but particularly through its youth engagement & Team Watersheds activities. To learn more, please contact us at [echonetwork@unbc.ca](mailto:echonetwork@unbc.ca).
- Our **ECHO Network website** has been updated with a new look and additional information—see <https://www.echonetwork-reseaecho.ca/> for these updates.

## Upcoming meetings and events, involving or hosted by ECHO team members

We welcome team suggestions for future upcoming events and meetings. Please email us at [echonetwork@unbc.ca](mailto:echonetwork@unbc.ca)

<b>April 30-May 2, 2019</b>	Canadian Public Health Association Conference—Public Health 2019 Shaw Centre, Ottawa, ON, including a co-hosted event: 1-2 May, ‘Healthy Parks, Healthy People; see <a href="http://www.cpha.ca/healthy-parks-healthy-people-forum">www.cpha.ca/healthy-parks-healthy-people-forum</a> .
<b>May 6, 2019</b>	ECHO Network Learning and Impact Workshop (10am-12pm PDT); for details please email: <a href="mailto:echonetwork@unbc.ca">echonetwork@unbc.ca</a>
<b>May 15-17th, 2019</b>	inVIVO 2019 in Detroit, USA. ECHO Network PhD student Christiana O. Onabola will be giving a 3 minute ‘lightning talk’. See also <a href="https://www.invivoplanet.com/program.html">https://www.invivoplanet.com/program.html</a>
<b>May 22-24, 2019</b>	Mapping our Values: Social, Historical, and Natural. UNBC, Prince George, BC. See also <a href="http://cca-acc.org/cca-cig-nbcgis-conference-2019/">http://cca-acc.org/cca-cig-nbcgis-conference-2019/</a>
<b>May 27-31, 2019</b>	The 2019 ECHO Network Annual Meeting will be hosted by the Université de Moncton and NBEN in Moncton, NB. For details please email us at <a href="mailto:echonetwork@unbc.ca">echonetwork@unbc.ca</a> .

## Publications of Interest

Parkes, MW., Allison, S., Harder, HG., Hoogeveen, D., Kutzner, D., Aalhus, M., Adams, E., Beck, L., Brisbois, B., Buse, C., Chiasson, A., Cole, DC., Dolan, S., Fauré, A., Fumerton, R., Gislason, MK., Hadley, L., Hallström, LK., Horwitz, P., Marks, R., McKellar, K., Barnes, HM., Oke, B., Pillsworth, L., Reschny, J., Sanderson, D., Skinner, S., Stelkia, K., Stephen, C., Surette, C., Takaro, TK., Vaillancourt, C. (2019). Addressing the environmental, community and health impacts of resource development: Challenges across scales, sectors and sites. *Challenges*. 10, no 1: 22. (<https://www.mdpi.com/2078-1547/10/1/22>).

Buse CG, Cornisk K, Parkes MW, Harder H, Fumerton R, Rasali D, Li C, Oke B, Loewen D, Aalhus M. (2018). Towards more robust and locally meaningful indicators for monitoring the social determinants of health related to resource development across Northern BC. Report prepared for Northern Health. Prince George, BC: University of Northern British Columbia (<https://www.northernhealth.ca/services/programs/office-health-and-resource-development#research-evidence-and-resource-documents>).

Gislason, M.K.; Morgan, V.S.; Mitchell-Foster, K.; Parkes, M.W. Voices from the landscape: Storytelling as emergent counter-narratives and collective action from northern BC watersheds. *Health Place* 2018, 54, 191–199. ([see here](#)).

## NBEN/UdeM Regional Case

Since our last update, we have settled quite nicely into our new office. It's about three times bigger than our previous one – a much needed and appreciated upgrade (we now have our own desks)!

On January 15th 2019, we hosted a Knowledge to Action workshop where we shared information on our integrative tool, the **Costs and Benefits Calculator**, through an interactive presentation and activity. We got some fantastic feedback and are now working with our developer to make our tool even better. If you are interested in watching the recording of the workshop, [click here](#). Stay tuned for the official launch of the tool.

On February 6th 2019, we had the annual conference of the Children's Environmental Health Collaborative in New Maryland, NB titled "Tipping the Balance: Cumulative Impacts on Children's Health", which aimed to look at ways address negative cumulative impacts of resource development and promote positive impacts. We had the pleasure to welcome Chris Buse who gave the participants of the conference a fantastic introduction to cumulative impacts and, along with Céline Surette, Anne Fauré and Hara Saadia, led an interactive workshop designed to help participants understand the difficulties in addressing cumulative impacts, foster the emergence of approaches and processes and promote inter-sectoral exchanges. The conference was a great success!

Now, we are ramping up the planning for the next ECHO Network Annual Meeting which will be held in Moncton from May 27-31. We have a few surprises up our sleeves and we are very much looking forward to hosting this meeting in our beautiful corner of Canada!



*Participants at the "Tipping the Balance: Cumulative Impacts on Children's Health" annual conference of the Children's Environmental Health Collaborative in New Maryland, NB*

## BRWA/UofA Regional Case

Riparian management and biodiversity have been at the forefront of the Battle River Watershed Alliance's work during the first months of 2019. We have received funding through the Canadian Agricultural Partnership's "Environmental Stewardship and Climate Change" grant program to complete a watershed-wide assessment of: 1) riparian intactness, and 2) pressures on riparian health from adjacent upland areas. This assessment will increase our understanding of riparian health across the watershed, and help us prioritize areas for future riparian restoration and conservation efforts. We also recently learned that we have received additional funding to continue with our Buffalo Trail Riparian Restoration Program over the coming year. These funds will enable us to support more landowner projects aimed at protecting or improving the health of riparian areas in the watershed. We also plan to continue hosting



*Participants at the Battle River Biodiversity Forum on World Water Day 2019*

educational forums and field days to raise awareness about the links between riparian health, water quality and quantity, biodiversity, community and public health, and more.

For World Water Day 2019 (March 22), the BRWA hosted a "Battle River Biodiversity Forum" to highlight biodiversity and citizen science in our watershed. Speakers from the BRWA, Alberta Lake Management Society, Alberta Biodiversity Monitoring Institute, Cows and Fish (Alberta Riparian Habitat Management Society), and Lakeland College shared insights into watershed health through the lens of the diversity of life found across the region. They also provided information on a number of regional initiatives that are involving residents ("citizen scientists") to collect information on everything from aquatic plants, bugs, and invasive species to water quality, reptiles, and amphibians.

It was a great day spent expanding our view of how the health of our watershed affects not just our own health, but the health of all life forms with which we share this space.

BRWA and the Alberta Centre for Sustainable Rural Communities also continue to work on developing a more integrative watershed health indicator framework. We are currently looking into indicators used by other organizations carrying out similar integrative watershed reporting, in order to support our efforts to identify a suite of indicators that are most relevant and meaningful to the Battle River watershed.

## FNHA/SFU Regional Case

On March 20th and 21st the FNHA Environmental Public Health Services (EPHS) and LEO Network Coordinator (Tom Okey) partnered to participate in the 2019 Gathering Our Voices Indigenous Youth Leadership Training event in Port Alberni, British Columbia. The event was a success in engaging youth on numerous environmental public health topics; such as drinking water, food safety, and housing. The BC LEO Network also utilized a different strategy to engage with youth and their chaperones, by inviting them to place a dot where they live on a large map of BC and discuss the unusual changes that they are noticing on their traditional territories as well as at the local level of their communities. In utilizing a large map to tangibly and visually depict change and location, the dialogue was enriched by his strategy and it will be incorporated into other outreach opportunities for the LEO Network.

March 20th was an engaging day for our case study as we participated in a relationship building and information sharing meeting with representation from the **ECHO Network**, the **Canadian Urban Environmental Health Research Consortium (CANUE)** and members of **affiliated research and health communities in BC**. The purpose of the meeting was to bring these important groups together to discuss current equity, rural and urban data realities as well as strengths, limitations and opportunities within our current research context.

Finally, our case study made it to an international stage, thanks to Margot Parkes presence at the International Union for Health Promotion and Education (IUHPE) Conference in New Zealand at the beginning of April. We are grateful to Margot Parkes who presented on our case study's behalf. The presentation was titled "Visualization and analytic tools for community engagement on social-ecological health impacts of resource extraction".

## NH/UNBC Regional Case

This past December, Northern Health's Office of Health and Resource Development (OHRD) and Margot Parkes presented at the 2018 Spruce Beetle Summit in Prince George and hosted a panel discussion on implications for human health. In February, UNBC hosted a live-stream session in Prince George of the BC Lung Association's Air Quality and Health Forum "Wildfire Smoke: A Growing Threat to Air Quality and Public Health" (presentations are available for download [here](#)).

Chris Buse gave a presentation titled "Cumulative Health Impacts: Beyond Toxicological Risk" at the annual conference of the New Brunswick Children's Environmental Health Collaborative on February 3. The presentation was delivered as part of a workshop co-facilitated by Chris Buse and partners from the NB regional case team.

UNBC and the OHRD recently released a report exploring indicators for monitoring social determinants of health impacts of resource extraction and development, which can be found on the [OHRD webpage](#).

This work identifies over 500 indicators, examples of existing data sources and associated knowledge gaps, and provides guidance and recommendations for improving monitoring processes. The OHRD continues to support healthy public policy, including commenting on the Fort St. John Land & Resource Management Plan update and new draft Federal Sustainable Development Strategy. We've also been working on reviewing EAs and associated management plans, including ongoing engagement with LNG Canada and Coastal GasLink Pipeline as the projects begin early



"Smoke at Nadsilnich (West) Lake, photos by Barb Oke"

construction, as well as preparing messaging for the next wildfire season. The OHRD will be presenting at an upcoming National Collaborating Centre for Environmental Health webinar (April 18 from 12pm-1pm PDT) on our work on the social impacts of resource development. Learn more and register [here](#)

**Save the date!** The Northern BC Regional Case will be hosting an online Learning and Impact Workshop on May 6th between 10am-12pm PDT.

## ECHO Network Team Member Profiles

### **Katie Bauder, FNHA/SFU Regional Case Research Assistant**



Katie is a Master of Public Health candidate at Simon Fraser University with a concentration in social inequities. She is currently conducting a scoping review exploring the nexus between data-intensive methods, rural environmental health, and equity for her capstone project. Katie was initially drawn to the ECHO Network because of her interest in complex social and environmental challenges and began working with Maya Gislason and ECHO in September 2018. Throughout her time working on ECHO-related projects, Katie has seen the benefits of collaboration across diverse research areas and hopes to be able to continue facilitating connections across research, environments and equity spaces.

### **Alice Morales, FNHA/SFU Regional Case Research Assistant**

Alice is a recent graduate from Simon Fraser University, having completed her Bachelor of Science with a concentration in population and quantitative health sciences. As part of her coursework, she placed emphasis on the Social Determinants of Health and the impacts of intensive resource extraction on vulnerable communities. In February, she joined the ECHO Network as a research assistant and is supporting the work of Team Equity through the preparation and editing of guiding documents and assistance during research meetings and events. She is very happy to be a part of the team and is optimistic that the upcoming work of Team Equity will be an integral part of the ECHO Network.



### **Christiana O. Onabola, ECHO Network PhD Student**



Christiana O. Onabola is a PhD student in Health Sciences at the University of Northern British Columbia. With a background in health and a focus on the intersection of health and environment, she completed her Masters in Public Policy and Global Affairs in the School of Public Policy and Global Affairs at the University of British Columbia. Her current research explores the deployment of the settings-based approach in Health Promotion and the scalar and spatial dimensions of settings at a watershed scale for downscaling the Sustainable Development Goals and advancing the SDGs agenda and health equity outcomes at local scales. She is interested in the use of participatory GIS

mapping as a mixed method approach to explore interactions among the Sustainable Development Goals at a watershed scale, and aid understanding of how to address potential conflicts among the goals and resultant vulnerabilities and inequities in health outcomes in local communities.

### **Madison Pearson, BRWA/UofA Regional Case Research Assistant**

A recent graduate of the University of Alberta's Augustana Campus majoring in Political Studies and minoring in English, Madison has developed an interest in rural, technological, and environmental policy-making over the last 3 years as a research assistant for the Alberta Centre for Sustainable Rural Communities. While she has worked for the ACSRC with Lars Hallstrom for the last two years, she began her work with the ECHO project in September. Her work with ECHO includes facilitating and analyzing interviews regarding data needs within municipalities. Another facet of the project is the development of an integrated personal, community, and environmental health "report-card" for the Battle River Watershed Alliance.

