RURAL HEALTH MATTERS

British Columbia Rural Health Network December 2021

Dedicated to the development of a health services system that improves and sustains the health and well-being of residents of rural communities across British Columbia as a model of excellence and innovation in rural health care.

Letter from the President

Dear members and supporters,

Standing from left to right: Matilda Atleo, Tina Biello, and Jeannette Watts. Seated from left to right: Clifford Atleo and Ed Staples

If I've learned anything in my time as President, it's that strong relationships are critically important to the success of our Network. Nienke and I recently travelled to Vancouver Island where we had the pleasure of meeting several members of the Nuu Chah Nulth Tribal Council (NTC), a member of the BCRHN. The meeting, held at the NTC Tribal Office in Port Alberni, included Jeannette Williams, NTC Manager of Nursing Services, Elder Clifford Atleo and his wife Matilda, and Tina Biello, Project Manager with the Central Island Division of Family Practice. This was an important opportunity to strengthen our relationship with the NTC that up till now has only been by telephone and Zoom. I look forward to the time when we are all able to strengthen our Network through in person meetings such as this.

As I write this from the comfort of my home, I am witnessing yet another natural disaster in our province that has caused incredible hardship for thousands of British Columbians. Here in my home town of Princeton, even as clean up is in progress, we are watching the rivers rise again as another atmospheric river dumps rain on the southern interior. And our town is not alone. The cities of Merritt and Abbotsford and countless numbers of smaller BC communities have been hit hard by the flooding. It will take months if not years to recover from this disaster.

All this leads to the question: What role does the BCRHN play in future (and inevitable) natural disasters? With the hiring of Paul Adams, our new Administrator, the Board of Directors has been going through a visioning exercise aimed at repositioning our organization as the healthcare voice of rural British Columbians. In the exercise, it is becoming clear that our expanding role is one of effective and accurate two-way communication between our members and all levels of government. In these uncertain and challenging times characterized by pandemics and natural disasters, the BCRHN is poised to fill the obvious gap that presently exists between rural communities and provincial decision and policy makers. With adequate resources, the BCRHN is ready and willing to be the conduit that will provide effective and accurate communication that will be so necessary as we face the future.

Central to reducing the present communication gap will be the timely collection of accurate information used to make appropriate decisions. For this to happen we need the province to establish a meaningful community engagement protocol aimed at involving community stakeholders in a collaborative approach to decision making. As we recover from this latest natural disaster, I encourage all levels of government to include the development of this protocol in their planning for the future.

As we enter the last month of 2021, I'd like to take this opportunity to wish everyone the happiest of holidays and a healthy and prosperous 2022.

Edward Staples, BCRHN President
telephone: 250-295-0822
email: bcruralhealthnetwork@gmail.com

Member of the Month
Chase & District Health Services Foundation

Caring - the Priority of Chase & District Health Services Foundation

Commenting at the outset of our conversations that all people share the same health services in this area, Foundation Chair Dave Smith also [acknowledges] the dreadful sadness recently revealed by the unmarked children's graves discovered at the Kamloops Residential School site, as well as that we are thankful to live and work within the traditional lands of the Secwepemc First Nation.

For nearly 25 years since 1997 when it was registered as a non-profit federal charity, the Chase & District Health Services Foundation (CDHSF) has been serving the community and region in significant and crucial ways.

Currently, the Foundation's priority list comprises a Lucas Automatic chest compression CPR system ($21,000), a portable Oximeter that measures oxygenated hemoglobin in the blood ($1,600 - $4,00). Over the next two to three years, plans are to procure a bladder scanner ($18,000) and a vein finder ($17,000).

In addition to the foregoing, a major goal of the CDHSF is to see the construction of a full care seniors' facility within Chase. "Moving elders to long term care in a distant community results in negative financial and emotional impacts on all those involved," reports Smith. "And in Chase, this happens more than two dozen times annually, which [means] spouses cannot see and visit with their husband or wife, without involving extensive travel, a vehicle, and expense."

The Foundation is in negotiations and discussions with the Village, the Interior Health Authority, and the Province about what has now become essential to comprehensive care in the area. Smith reports that there is multi-lateral support for a long term care facility in Chase, which could also house multiple and varied medical services. It is anticipated that this vital resource will be in place within the next few years.

Started as a pilot project here, Community Paramedicine currently provides essential services to seniors through home visitations providing health and medication check-ups.

As well, Better at Home, a Shuswap programme funded by the United Way and the province, offers yard work, minor home maintenance, as well as meals, all of which help the elderly remain in their own home.

Another significant Chase initiative is the Community Kitchen, capably and enthusiastically overseen by members of the Chase Hamper Society providing nutritious meals to residents. With the cessation of COVID restrictions and the Community Kitchen partnership becoming a reality, the number of individuals requesting this service is expected to increase considerably.

Another project that's being investigated by the Foundation involves Willson Park in Chase. "We'd like to see that particular green space being used more in the future", states Smith. "It may be a good spot for new benches, exercise equipment, a Story Book Trail programme, and community events."

And hence, as people age here, they will most certainly benefit from the stalwart and conscientious efforts of the Chase & District Health Services Foundation and its volunteers - a group that cares, a group that is working on behalf of the elderly in so many ways.

Information source: The Chase Sunflower - Carolyn Parks-Mintz

NEW ON OUR WEBSITE

Who Died in BC's Heat Dome?

THE TYEE

People who were older, living with mental illness and substance use issues, or in poorer neighbourhoods with less green space and trees.

Jen St. Denis 5 Nov 2021 [Note: text in blue are hot links]

[Excerpts] An initial analysis of deaths during British Columbia's unprecedented heat dome event in late June shows that people with mental illness and substance use issues may have been particularly at risk.

Other factors that put people at an increased risk of dying included being older than 50, socially isolated and living in poorer neighbourhoods with less green space and tree cover, according to a presentation by Sarah Henderson, the scientific director of environmental health services at the BC Centre for Disease Control.

During the week-long "heat dome," temperatures rose as much as 12 C higher than normal in Vancouver and temperatures did not cool off much at night, meaning there was little respite from the heat.

It was the deadliest weather event in Canadian history: 526 British Columbians died of heat-related causes during the heat dome that lasted from June 25 to July 1.

Henderson stressed that more research needs to be done on the factors that put people at increased risk. She looked at people over the age of 50 who died during the heat dome and compared that group with people over 50 who died during similar summer periods from 2013 to 2020.

Henderson looked at environmental factors like how much green space is in a neighbourhood, how close residents are to bodies of waters and how dense the buildings are.

She said the availability of neighbourhood green spaces was the biggest factor in determining how much risk residents are exposed to during extreme heat events.

"There's about a 30-per-cent difference in risk for those lower greenness places compared with those higher greenness places, adjusted for all other factors," Henderson said.

Henderson also studied which pre-existing health conditions put people at risk, looking at 678 people who died during the heat dome, likely of heat-related causes. She compared those cases with deaths during a similar summer period from 2013-2020.

Henderson also studied which pre-existing health conditions put people at risk, looking at 678 people who died during the heat dome, likely of heat-related causes. She compared those cases with deaths during a similar summer period from 2013-2020.

Henderson found that people with schizophrenia were at four times higher risk during the heat dome. People with substance use, depression and mood or anxiety disorders were also more at risk.

In contrast, Henderson did not find that people with a range of cardiovascular conditions were at higher risk, a result she said she found surprising and required more study.

People with Alzheimer's and dementia were also not at higher risk, perhaps because they are more likely to be living in a care home or be cared for by a family member, Henderson said.

The vast majority of people who died during the heat dome died in their own homes, and Henderson said there needs to be more understanding of just how hot it can get inside.

Continued on page 4

cont. from page 3

The heat dome is the kind of weather event scientists say will become more common because of climate change, and Henderson said B.C. needs to be better prepared for next time.

Experts need to establish what a safe indoor temperature is, when it becomes dangerous, and "what do we do when we see these temperatures creeping up creeping up creeping up, because that's where the risk really is."

More work needs to be done to reach people who are socially isolated, Henderson said. B.C. could create a registry of those people and connect them with organizations that work with vulnerable people to make sure they're not forgotten during heat waves or other climate-related disasters.

"We can look for seniors who are living alone," Henderson said. "We can look at those individuals who are not using the health-care system as much as we'd expect them to, given their age and location."

Paramedics attend an emergency call during a heat wave that lasted from June 25 to July 1. Photo by Steve Burgess.

To access the full article, click on **https://thetyee.ca/News/2021/11/05/Who-Died-BC-Heat-Dome/**

NEW ON OUR WEBSITE

Climate change and health
Key facts [Excerpts]

30 October 2021

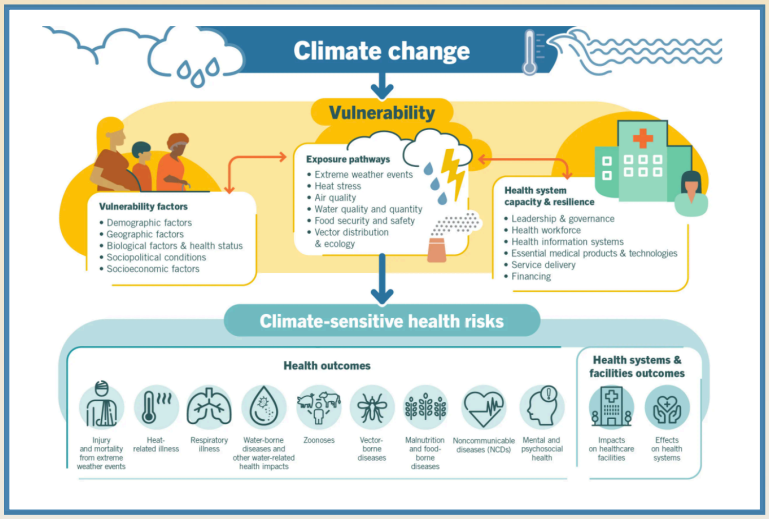
World Health Organization

- Climate change affects the social and environmental determinants of health – clean air, safe drinking water, sufficient food and secure shelter.
- Between 2030 and 2050, climate change is expected to cause approximately 250 000 additional deaths per year, from malnutrition, malaria, diarrhoea and heat stress.
- The direct damage costs to health (i.e. excluding costs in health-determining sectors such as agriculture and water and sanitation), is estimated to be between USD 2-4 billion/year by 2030.
- Areas with weak health infrastructure – mostly in developing countries – will be the least able to cope without assistance to prepare and respond.
- Reducing emissions of greenhouse gases through better transport, food and energy-use choices can result in improved health, particularly through reduced air pollution.

Climate change is the single biggest health threat facing humanity, and health professionals worldwide are already responding to the health harms caused by this unfolding crisis.

In the short- to medium-term, the health impacts of climate change will be determined mainly by the vulnerability of populations, their resilience to the current rate of climate change and the extent and pace of adaptation.

In the longer-term, the effects will increasingly depend on the extent to which transformational action is taken now to reduce emissions and avoid the breaching of dangerous temperature thresholds and potential irreversible tipping points.



To read more, click on:
Climate Change and Health

NEW ON OUR WEBSITE

Closing the Gaps: Advancing Emergency Preparedness, Response and Recovery for Older Adults

29 Evidence-Informed Expert Recommendations to Improve Emergency Preparedness, Response and Recovery for Older Adults Across Canada

[Source: https://bc.healthyagingcore.ca/sites/default/files/2020-12/CRC_WhitePaper_EN.pdf]

[Excerpts] In January 2019, the Canadian Red Cross in partnership with the National Institute on Ageing reviewed the latest evidence and expert opinions to inform the development of recommendations for governments, organizations and individuals to improve emergency preparedness, response and recovery for older adults. Following is a sample of the recommendations.

Recommendation 2.1: Access should be increased to tailored community-based programs that educate older adults and their unpaid caregivers about emergencies that could affect their region and how best to prepare for and respond to them. Volunteer representatives of older Canadians and their unpaid caregivers should be recruited and involved in training material development and implementation, to ensure their voices and perspectives are reflected.

- Community-based programs and organizations should collaborate with regional public health authorities in developing and disseminating education resources on infection control, disease and injury prevention practices for older adults and their unpaid caregivers during emergencies.

Recommendation 2.2: Programs that provide disaster relief and/or essential community services, such as Meals on Wheels, and daily living assistance for older people (financial, medical, personal care, food and transportation) should receive emergency preparedness training and education, as well as should develop and adhere to plans and protocols related to responding adequately to the needs of their clients during emergencies. Volunteer representatives of older Canadians and their unpaid caregivers should be recruited and involved in training material development and implementation, to ensure their voices and perspectives are reflected.

Recommendation 2.3: Community-based programs that provide in-home health and personal care for older adults should integrate strategies that minimize unnecessary personal contact and leverage resources (e.g. personal protective equipment such as gowns, masks, gloves, hand sanitizer etc.) in their emergency preparedness plans and protocols.

Recommendation 2.4: Local governments should leverage data sources that identify at-risk individuals to enable emergency responders to more easily prioritize their search and rescue efforts following an emergency

Recommendation 4.3: Care institutions and other organizations should strive to develop comprehensive emergency plans that include effective response strategies for protecting older adults against infectious disease outbreaks and reflect evidence-based standards supported by organizations such as Infection Prevention and Control Canada (IPAC).

Recommendation 5.3: All provinces and territories should support the creation of a national licensure process or program for nurses, physicians, allied health professionals and other emergency medical service personnel to allow them to provide voluntary emergency medical support across provincial/territorial boundaries during declared states of emergency.

Recommendation 5.4: All provincial and territorial governments should support legislative requirements that mandate congregate living settings for older persons (e.g. nursing homes, assisted living facilities and retirement homes) to regularly update and report their emergency plans that outline actions and contingencies to take in case of emergencies. All provinces and territories should work towards standardizing requirements for emergency plans in congregate living settings in accordance with the priorities outlined in the 2019 Emergency Management Strategy for Canada and ensure that their emergency plans for congregate living settings are aligned with directives outlined in their provincial/territorial pandemic and emergency plans.

To download, click on: **CRC WhitePaper EN.pdf**

NEW ON OUR WEBSITE

Climate change toll on Canadians' health to cost hundreds of billions of dollars.

CTV NEWS

Ryan Flanagan CTV News.ca Producer
Published Wednesday, June 2, 2021 [Note: text in blue are hot links that will lead you to related stories]

[Excerpt] TORONTO — Beyond its environmental threat, climate change is endangering public health in Canada in ways that will have significant human and financial costs, a new report says.

The report, which was released Wednesday by the Canadian Institute for Climate Choices (CICC), estimates that the impact of climate change on health in Canada will add up to hundreds of billions of dollars, while drastically increasing hospitalizations and premature deaths due to weather-related issues, based on their current numbers.

Ryan Ness, the CICC's director of adaptation, told CTVNews.ca that without immediate action, climate change will also leave Canada with a "public health crisis," the consequences of which will disproportionately be borne by those who are already grappling with an outsized share of health inequities.

One study in 2016 found that the gap in the risk of premature death in a poor Canadian woman and a wealthy Canadian woman had widened by 40 per cent over the preceding 25 years.

"This isn't a technical or environmental crisis. It's a crisis of equity, and making sure that everybody has a fair chance," Ness said via telephone on Tuesday.

The consequences of a warming world are expected to impact human health in many ways, from an increase in food-borne illnesses to longer and more severe allergy seasons. The CICC's report focuses on three specific threats: warmer temperatures, degraded air quality, and increased prevalence of Lyme disease.

On Lyme disease, scientists are already ringing alarm bells over an increasing number of cases, which they say are caused by warmer winters making it easier for disease-carrying ticks to survive in urban areas.

Health Canada reported 2,636 cases of Lyme disease in 2019, 11 times the number from 10 years earlier. The CICC report projects that number to rise to 8,500 cases per year by the middle of the century, with associated annual costs to the health-care system of $3 million.

While that figure is relatively small, the report calculates the overall impact of climate change on health to be much larger. It says direct costs to the health-care system will run into the billions with the economic loss reaching the tens of billions. Premature deaths, mental health impacts, and blows to Canadians' quality of life – increasing food insecurity in the North, for example – will drive up the price tag even further.

In the worst-case scenario, lost productivity alone is estimated to cost the Canadian economy nearly $15 billion per year by the end of the century, with the increase in extreme heat days during summertime causing a reduction in working hours equivalent to the loss of 62,000 full-time jobs. Industries in which the majority of the work is done outdoors or in hard-to-cool spaces will be the most heavily affected.

Under the best-case scenario, meanwhile, the report estimates that heat-related hospitalization rates will double by the year 2100.

Ian Culbert, who wrote the report's foreword and is the executive director of the Canadian Public Health Association, says the report shows that the federal government's push to achieve net-zero emissions by 2050 will also bring health benefits for Canadians.

That's important, he said, because while the public often prefers to push governments into action on issues it sees as more urgent than climate change, the calculus changes when it's linked to individual health.

Read more at: **Climate change toll on Canadians' health to cost hundreds of billions of dollars**

NEW ON OUR WEBSITE

Rural citizen-patient priorities for healthcare in British Columbia, Canada: findings from a mixed methods study

BMC Health Services Research

Kornelsen et al. BMC Health Services Research (2021) 21:987

[Excerpt from: https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-021-06933-z]
The challenge of including citizen-patient voices in healthcare planning is exacerbated in rural communities by regional variation in priorities and a historical lack of attention to rural healthcare needs. This paper aims to address this deficit by presenting findings from a mixed methods study to understand rural patient and community priorities for healthcare.

In recent decades, there has been recognition of the importance of a broad coalition of key stakeholders in healthcare decision-making and the attendant move from an administratively-oriented process to one that prioritizes diversity of voices.

Decision-making tables now include participation from those providing and receiving care alongside others with a vested interest in health service delivery such as industry. Broad-spread recognition of the importance of healthcare users' input has gained so much traction that many jurisdictions have instituted mechanisms to facilitate such involvement from an individual committee level (e.g., British Columbia Patients as Partners) to a systemic level through prioritized patient-oriented research.

In British Columbia (BC), Canada, citizen-patient participation in healthcare decision-making, planning and research takes many forms and occurs at varying levels (locally, regionally, provincially). For instance, the Patient Voices Network operates at a provincial level to pair patient partners with healthcare stakeholders including researchers seeking to incorporate patient perspectives into their work].

Likewise, BC's Regional Health Authorities have responsibilities to engage citizens-patients to plan and deliver health services that satisfy population needs in their respective regions]. Engagement opportunities are unique to each Health Authority and might involve focus groups, surveys and workshops, presentations to municipal councils and community organizations, and participation on advisory committees.

What is less clear, however, is the agency of citizens-patients to be proactively involved in shaping strategic agendas as opposed to responding to health system priorities. In BC, there are few, if any, established mechanisms to proactively gather citizen-patient input for priority setting activities. A further challenge of proactivity is finding these opportunities for involvement in a healthcare system that is distributed and siloed. This is compounded by the diversity of citizen-patient voices and the danger in assuming homogeneity within this group.

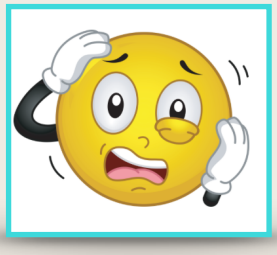
British Columbia is Canada's third largest province with a land mass of nearly 950,000 square kilometres. Despite its expansive geography, the majority of the province's population is concentrated in urban areas that account for 5 % of the land base.

Meanwhile, 13.6 % of the population is located in non-urban settings that encompass 95 % of the land area. It is unsurprising then that rural BC communities are often small and dispersed.

British Columbia's rural residents are older than their urban counterparts and as populations age, their need for services including healthcare increases.

Additionally, rural residents experience poorer socioeconomic status, including lower educational attainment, higher incidences of unemployment and lower average earnings, and poorer health status, including higher incidences of some chronic diseases, poorer perinatal health outcomes, and higher rates of all-cause mortality compared with urban dwellers. Nonetheless, low population density in rural areas in combination with the vast geographical landscape, make it difficult to sustain specialist services and hamper access to primary care.

To read more, click to **Download PDF**



Wondering about the various acronyms and abbreviations?
Are you confused???
Don't worry, help is on the way.
Number 13 in our series *'acronyms explained'* (AE)

SPOR = Strategy for Patient-Oriented Research

The Strategy for Patient-Oriented Research (SPOR) is a collection of funding partnerships between the Canadian Institutes of Health Research, provinces and territories, philanthropic organizations, academic institutions, and health charities.

At its core, SPOR is about providing the evidence needed to inform the development of health policies and improve the health care system.

NEW ON OUR WEBSITE

Alphabet is launching a company that uses AI [Articifical Intelligence] for drug discovery

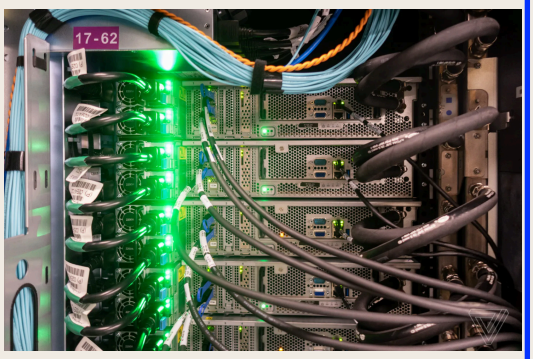


Photo by Micah Singleton / The Verge

[Note: blue text are hot links and will lead to related articles.]

[Excerpt] A new Alphabet company will use artificial intelligence methods for drug discovery, Google's parent company announced Thursday. It'll build off of the work done by DeepMind, another Alphabet subsidiary that has done groundbreaking work using AI to predict the structure of proteins.

The new company, called Isomorphic Laboratories, will leverage that success to build tools that can help identify new pharmaceuticals. DeepMind CEO Demis Hassabis will also serve as the CEO for Isomorphic, but the two companies will stay separate and collaborate occasionally, a spokesperson said.
For years, experts have pointed to AI as a way to make it faster and cheaper to find new medications to treat various conditions. AI could help scan through databases of potential molecules to find some that best fit a particular biological target, for example, or to fine-tune proposed compounds. Hundreds of millions of dollars have been invested in companies building AI tools over the past two years.

Isomorphic will try to build models that can predict how drugs will interact with the body, Hassabis told *Stat News*. It could leverage DeepMind's work on protein structure to figure out how multiple proteins might interact with each other. The company may not develop its own drugs but instead sell its models. It will focus on developing partnerships with pharmaceutical companies, a spokesperson said in a statement to *The Verge*.Developing and testing drugs, though, could be a steeper challenge than figuring out protein structure. For example, even if two proteins have structures that fit together physically, it's hard to tell how well they'll actually stick. A drug candidate that looks promising based on how it works at a chemical level also might not always work when it's given to an animal or a person. Over 90 percent of drugs that make it to a clinical trial end up not working, as chemist and writer Derek Lowe pointed out in *Science* this summer. Most of the problems aren't because there was something wrong at the molecular level.

The work done at DeepMind and the proposed work at Isomorphic could help bust through some research bottlenecks but aren't a quick fix for the the countless challenges of drug development. "The laborious, resource-draining work of doing the biochemistry and biological evaluation of, for example, drug functions" will remain, as Helen Walden, a professor of structural biology at the University of Glasgow, previously told *The Verge*.

To read more, click on: **Alphabet is launching a company that uses AI for drug discovery**

Some of Our Latest Twitter Followers

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2022 President-Elect Doctors of BC
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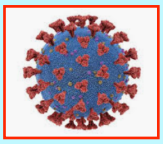
BC Children's Hospital Research Institute
@grantsfacilitat Research & Technology Development
est. 2003, BCCH Research Institute I UBC I PHSA.
We focus on science. bcchr.ca

Dr. Evan Adams
@doctoreonline
Chief Medical Officer - Indigenous Services Canada
Tla'amin Nation https://fafm.cfpc.ca/evan-adams/

Pharmacists in PCN Program
@ubcpharmpcn UBC Pharm Sci is leading the first 3 years of the Pharmacists in Primary Care Network
Program.pharmacistsinpcn.ubc.ca



What's known and unknown about Omicron, the coronavirus variant identified in South Africa

STAT

By Andrew Joseph Nov. 26, 2021 [Excerpt] Scientists in South Africa have identified a new coronavirus variant with a worrisome combination of mutations that experts fear could make it more transmissible and allow it to evade immune protection — including the protection generated by vaccines.

Experts are scrambling to learn more about the variant, known by its scientific name B.1.1.529 and called Omicron by the World Health Organization. Right now, there are more open questions than firm answers. And although scientists have expressed significant early concern over the variant — the WHO designated it as a "variant of concern" on Friday — they have cautioned that they are still seeking critical information about it. Some mutations have been previously seen in other variants and are associated with increased transmissibility and the ability to get around immune protection.

Read more at: **What's known and unknown about Omicron, the coronavirus variant identified in South Africa**

Below are some important resources. Click on the blue text to download, or visit our website to access.

Isobel MacKenzie's Report

Oct 28 Emergency PreparednessDownload

Video: https://www.youtube.com/watch?v=tNR91x6HL-A

Rural Mental Wellness Toolkit

Rural Toolkit Info SummaryDownload

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