# IH's Approach to a Climate Change Vulnerability Assessment (CCVA) Pilot in Golden, B.C.

Tanja Stockmann Environmental Sustainability Manager November 26, 2019



## Presentation Outline

- The Start
  - Building the need & communicating the whole picture
- Building blocks to the Pilot Climate Change Vulnerability Assessment (CCVA)

2

- The Pilot Assessment
  - What we assessed
  - The results
- After the Pilot and next steps

# Building the Need/ Buy-in for Adaptation Planning

Mitigation

Reduce emissions

footprint

Prepare for disruptions while reducing our

**Adaptation** 

Prepare for changes

Communicate ways to reduce our impact o on the environment

Raise awareness of how climate change will affect our lives/our work

3

#### **Education**

Learn and share



# Communicating the Whole Picture – Adaptation Planning

Context analysis & stakeholder mobilization	Build internal and staff awareness	Create climate change adaptation team	Identify & notify departments and external stakeholders	Obtain buy-in from stakeholders	
ldentify current & future climate hazards	Identify climate risks for IH	Build climate change scenarios	Obtain data on climate projections	Develop inventory of climate change impacts	
Participatory analysis of climate change vulnerabilities	Vulnerability Assessment	Identify, analyze and prioritize risks	Identify current adaptive capacities		
Develop initial adaptation strategies	Research on adaptation plans	Develop adaptation strategies for IH	Define timelines & pathways	Prioritize actions	Develop monitoring and evaluation indicators
Partnership opportunities and capital linkages	Identify co- operation opportunities	Communication of risks and opportunities	Identify capital linkages	Prepare budget plans	
Prepare & implement adaptation plans	Prepare CC adaptation plan for IH	Prepare implementation strategy	Implement adaptation actions	Review, monitor and evaluate	

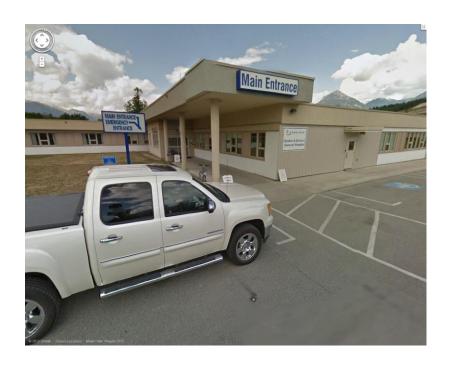


# IH's Building Blocks to the Pilot Assessment



## Site Assessment – Golden, B.C

- \* Community Hospital
- \* Somewhat isolated
- \* Located on a floodplain
- \* Smaller town, but 7,088 people depend on facility
- Older building may be ripe for re-development in future
- \* Expected changes: flooding, ice jams, wildfires, air quality



## Vulnerabilities Assessed



# Facility Operations

- Ambulatory Care
- Surgical
- Emergency Care
- Inpatient Care
- Intensive Care
- Administration



#### • Power – main grid

- Power emergency
- Medical gasses
- HVAC
- Water-potable/non
- Storm-water
- Wastewater
- Medical waste
- IT/Communications

7

Transportation



#### • Patient transfers

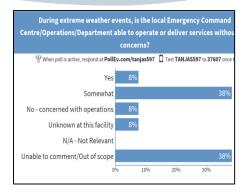
- Staff availability/accommo dations
- Patient surge
- Medical supplies
- Lab & Pharmacy
- Food/nutrition
- Hospital as a community anchor

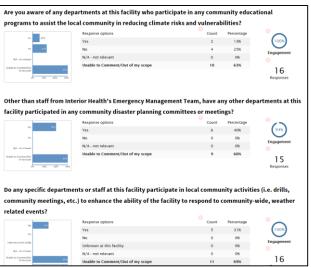


Continuity Considerations

## Vulnerabilities Identified at GDH

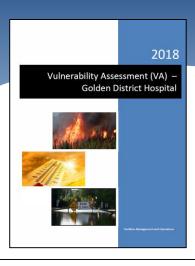
- \* Physical Location of facility particularly the loss of access routes to/from the facility due to floods and wildfires
- \* Critical infrastructure below-grade at risk during flooding events inadequate protection of assets
- \* Additional concerns with building envelope (roofs, doors, windows) due to high winds
- \* Identified areas requiring further investigation (risks)







11/22/2019



# Identifying Strengths & Opportunities

#### **VULNERABILITY ASSESSMENT RESULTS**

SECTION 1: SITE ACCESS, LOCATION AND PHYSICAL PARAMETERS – The physical infrastructure of a building can be easily damaged due to weather events. This section focuses on physical vulnerabilities of the site.

The most critical concern was the loss of access routes within town, particularly due to wildfires and floods.

Indicators Relevance		Participant perception (Feedback)			Analysis				Planning recommendation/Potential adaptation
		Climate/Weather Risk of Concern	Strengths identified	Vulnerabilities identified	Exposure	Sensitivity	Current Adaptive Capacity	Recommenda tion	actions
Access & transport to facility	Access and transport routes to the facility can be at a risk due to weather events; which might cause physical damage to the roads, or block the access.	Flooding Wildfires loe storms Extreme winds Extreme heat Extreme cold	Presence of multiple access routes to enter building. Very defined evacuation plans. Very defined contingency plans. Available and equipped vehicles to transport patients. Known process to identify vehicles to transport patients. Presence of Helipad. Presence of some access points for wheelchairs and stretchers during weather events. Presence of a process to identify where logistic trucks are at a given point.	<ul> <li>Helipad has limited use as it can be used only in day-light.</li> <li>Access routes (particularly to the town centre) are very vulnerable to extreme weather events.</li> <li>No public transport.</li> </ul>	Very high	Known very sensitive	Poor to very poor	Mitigate impacts	ST RECOMMENDATIONS: Survey the landscape elements (e.g. trees/bridges) which may block access to the facility during extreme weather events (consider windstorms toppling trees, etc.). Ensure that paved roads/landscape features will not affect access (due to higher temperatures, more rainfall, and freeze/thaw events). Ensure that all points are accessible by wheelchairs and stretchers during extreme weather events. Ensure evacuation routes from facility are above flood levels, or establish alternate routes/options. MT RECOMMENDATIONS: For safety and to mitigate damage from extreme heat, ensure that the facility has light-coloured paving on walkways & parking areas. LT RECOMMENDATIONS: Raise parking areas above flood levels.

# Results Climate Change Vulnerability Assessment Pilot

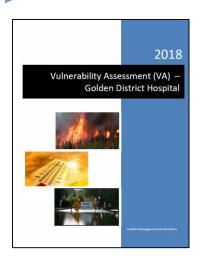
#### Pilot Roll-out Results

- \* Participants built capacity and gained knowledge of climate risks and vulnerabilities;
- \* Linkages within our organization;
- \* Mobilized staff and community partners to work together;
- \* Supported more facility awareness and climate preparedness;
- \* Identified potential vulnerabilities, short, medium and longer-term potential actions.

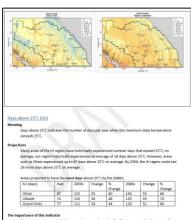




## After the CCVA Pilot



- \* Pilot Results Report communicated;
- Linkages within our organization now have "climate change" as a risk domain included in our enterprise risk management process;



wide range of planning and policy decisions. Knowing how many days are above 25°C has applications in agriculture, engineering, health, energy management, recreation and mor

- \* Delivered 4 All-Staff Webinars to discuss climate as a risk;
- In progress Report "An Interpretation of Climate Data for the IH Region";
- \* Presenting to Strategy and Risk Management Council.



Climate change is a hot topic around the globe – but have you considered how it might affect you at a local level?

With an increase in flood and fire activity in recent years, we are already beginning to feel the effects of a changing climate across the region and are working to understand what this could mean for Interior Health in the decades to come.

"

"Understanding potential risks from climate change is the first step to prepare for these changes and ensure we are able to continue providing quality health services to our region and meet the needs of our communities, patients, and families."

- Tanja Stockman, Manager, Environmental Sustainability

#### Join the conversation

Because climate change is likely to impact numerous departments across IH, we are inviting all staff to sign-up for a live webinar, Conversations about Climate Risk, which will highlight some of risks we anticipate. The webinar will provide an overview of changes you can expect to see over the next 20 to 80 years, and provide opportunities to discuss how this may impact you at home and work.



## Contact Information

#### Thanks! Any questions?



