

Improving Flood Risk Awareness to Drive Behavioural Change

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2017 CRHNET Annual Symposium
Wednesday, October 25, 2017



Overview

- What is Partners for Action?
- Flooding in Canada
- National Survey on Flood Risk Awareness
- Communicating Flood Risk
- FloodSmart Communities
- Questions

What is Partners for Action?

Applied research network, with the mandate to:

- Facilitate collaboration and innovative, practical research
- Share results and best practices
- Inform Canadians



Our goal is to help communities and individuals:

- Understand their flood risk
 - Flood and risk mapping, vulnerability assessment
- Have access to tools
 - Policies, plans, procedures
 - Cost-benefit of action vs. inaction
 - Risk transfer - personal action, incentives, insurance
- Build resiliency



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Our approach – Partners, Action

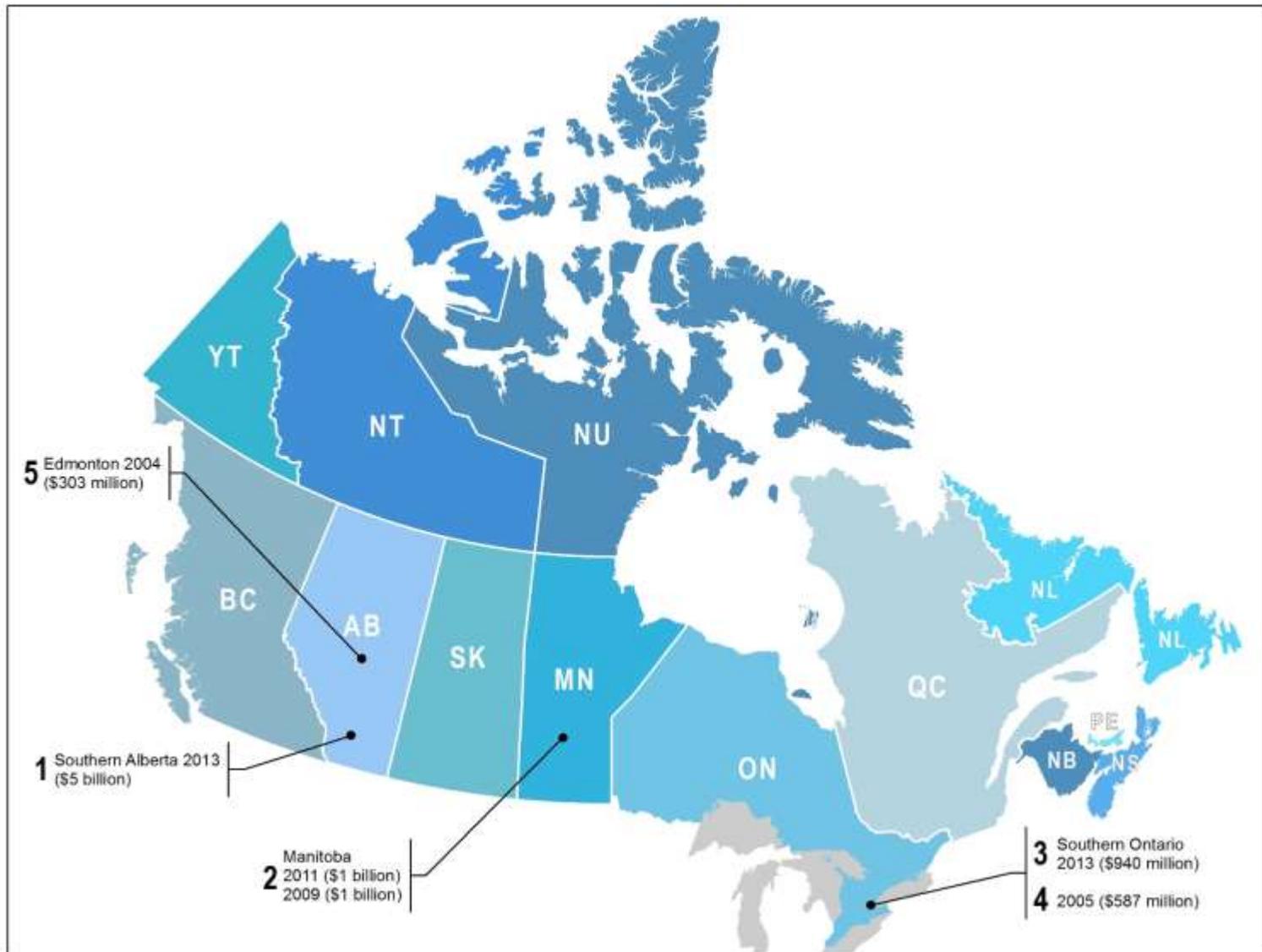
- Put the issue at the centre
- Work for and within communities
- Connection – governments, corporations, communities, academia
 - Advisory Committee
 - Stakeholder Group
 - Outreach
 - Information
- What we produce is actionable, shared, and broadcast
- We train our next leaders, our students

Floods Happen

- Our climate is changing
 - Increasing precipitation
 - Increasing snow and ice melt
- Our communities are changing
 - Population growth/urbanization
 - Increased development
 - Development in less optimal locations
- 1.8 million Canadian households are at risk of flooding.
- Across Canada, damage from extreme weather has cost taxpayers and insurers almost \$10 billion since 1998.
- Over the next 5 years, federal assistance to flood victims could reach \$3.4 billion.



Canada's most expensive floods (2000 - 2016)



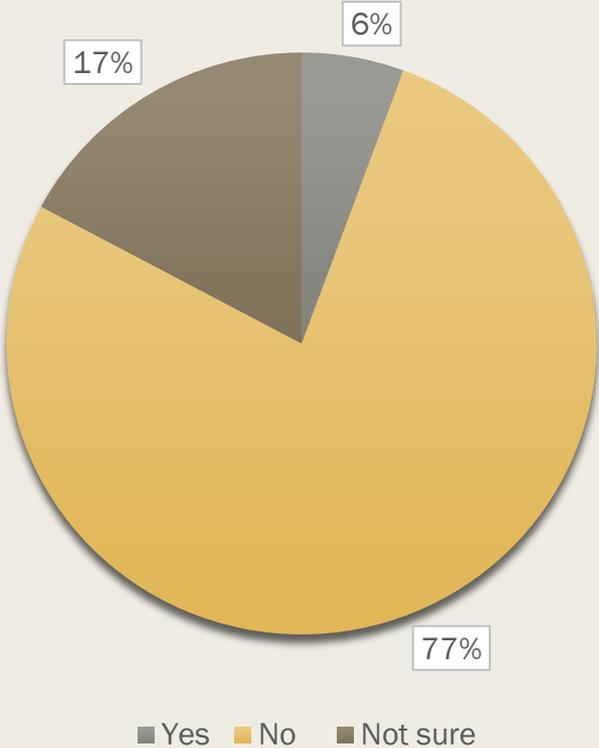
National survey on flood risk awareness

- National (bilingual) online:
 - 2,300 respondents in areas designated by the Flood Damage Reduction Program as high risk.
- Major themes:
 - awareness of flood risk, degree of concern, flood experience
 - responsibility to protect from floods and pay for damages – governments, homeowners, relief organizations, insurers
 - understanding of insurance and willingness to pay

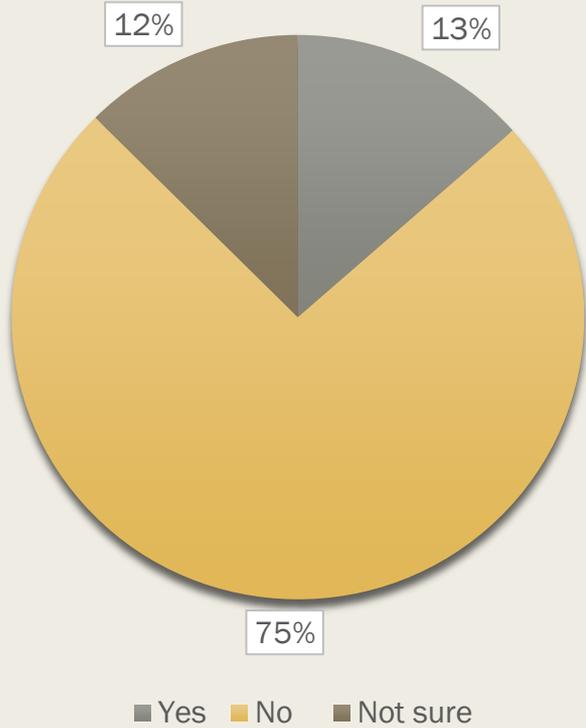


National Survey - flood risk awareness

Is your house in a designated risk area*?



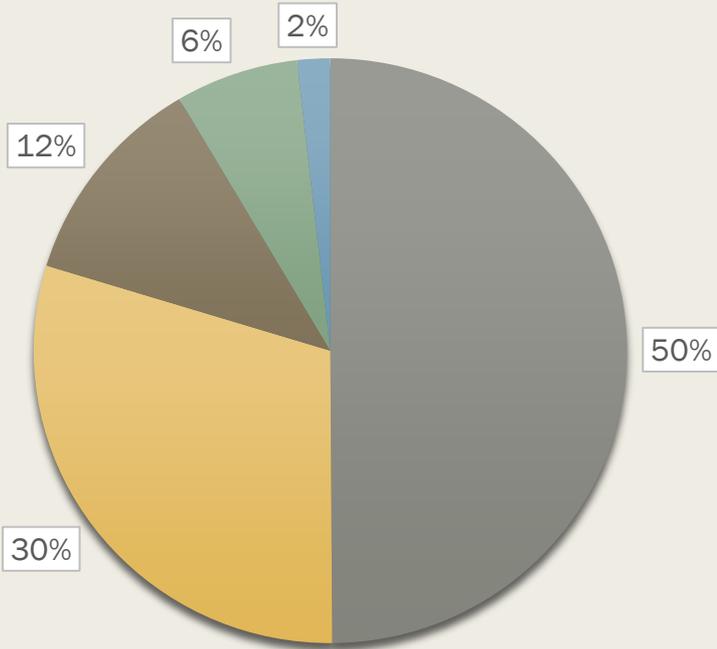
Is your house in an area that's vulnerable*?



* All postal codes selected for the survey were identified by the Flood Damage Reduction Program as high risk ('area subject to recurrent and severe flooding')

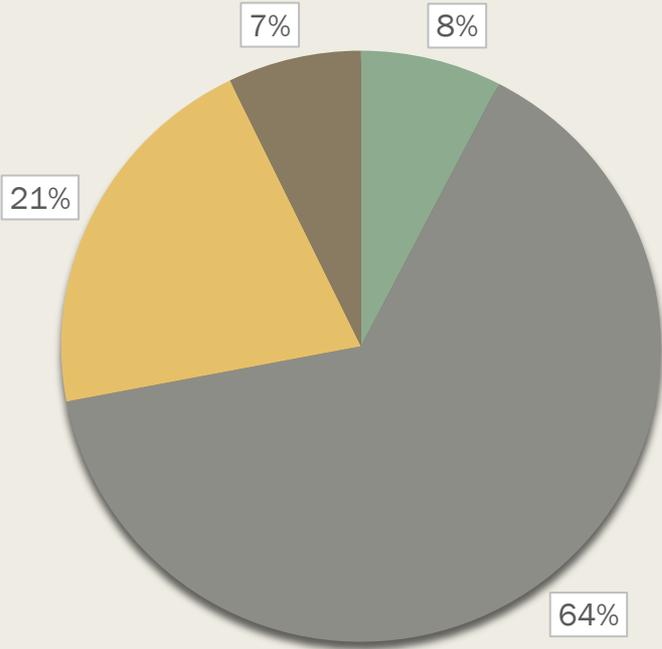
National Survey - flood risk awareness

Are you concerned about your risk?



Not at all
 Slightly
 Somewhat
 Moderately
 Extremely

Will your risk change in 25 years?



Decrease
 No Change
 Increase
 Not Sure

* All postal codes selected for the survey were identified by the Flood Damage Reduction Program as high risk ('area subject to recurrent and severe flooding')

National Survey – property protection

- 83% believe homeowners are responsible for protection

- But, only 1/3 have done anything...
 - backwater valve, sump pump (but most don't have backup power)
 - moved/elevated electrical systems in basement
 - moved personal or expensive items from basement
 - rain barrel
 - water-resistant building materials in basement

Canadians personally bear over \$600 million in flood losses EACH YEAR. There are simple, low-cost ways to reduce this burden.

National Survey - risk sharing

Due to rising costs, governments are finding ways to reduce flood risks and share responsibility with homeowners.

- Most want to know their risk:
 - 92% - make flood risk maps publicly available
 - 90% - disclose flood risk/historic damage during a real estate transaction
- Most want government to lead protection:
 - 64% - if a municipality approved a home in a flood risk zone, they must protect and compensate
 - 43% - government should not pay to rebuild in flood risk zones
- Most want insurance to lead recovery:
 - 57% - the role of government is to protect public safety, NOT compensate
 - 77% - insurance should pay for recovery after a flood event

National Survey - conclusions

Canadians...

- are unaware of flood risk, types of flood, and the relationship between climate change and future flood risk
- hold a strong sense of personal responsibility in flood prevention
- don't want a strong role in recovery
- want to know their risk and make informed choices, support mandatory disclosure
- do not understand what types of water damage their home insurance covers
- do not know about flood insurance, or intend to purchase
- Do not understand the connection between purchasing flood insurance and federal disaster assistance eligibility
- are not aware of, or taking advantage of, options to reduce or transfer risk

If you don't know that you're at risk, or that you can get subsidies or an insurance discount, why would you act?

National Survey - recommendations

- Governments must inform residents about:
 - what is expected of them
 - what could happen to them if a flood occurs
 - which actions are best for their home

- Insurers must inform consumers about:
 - flood insurance availability and options
 - insurance versus disaster relief
 - opportunities to reduce risk through personal and home protection

- We must develop a national flood risk strategy that:
 - communicates the risks of flooding
 - publicly-available flood risk maps
 - real-estate disclosure
 - encourages property-level flood protection

- We need to work together on a national direction that ensures insurance is available by sharing financial responsibility in high risk areas.

Workshop - Perspectives in Flood Risk Assessment and Management

- Held early February in conjunction with CatIQ's Canadian Catastrophe Conference - over 110 participants

- Recommendations:
 1. Data and shared understanding of 'risk' towards informed decision-making
 2. Homeowner education and awareness towards active participation in flood risk management decisions
 3. Proactive cross-sector collaboration, working together to overcome competition, align goals and objectives, and identify and assist groups working in this space nationally.

What does it all mean?

- Canadians want to understand their risk, and want to contribute to reducing risk.
- Opportunities:
 - Come together towards a common goal of flood resiliency:
 - share expertise and responsibility for flood risk management in Canada
 - streamline work that is underway and remove redundancies
 - move our shared goals forward
 - Inform consumers:
 - flood risk – what it means for their home, and how to interpret the information
 - products, disaster assistance, and incentives for personal protection
 - www.FloodSmartCanada.ca



Communicating Flood Risk

- Barriers to action – why don't we act?
 - Canadian barriers (PS survey)
 - I am not at risk/it won't happen to me (over 80%)
 - Cost
 - Time
 - US barriers (FEMA survey)
 - Cost
 - Time
 - Don't know how/can't find information

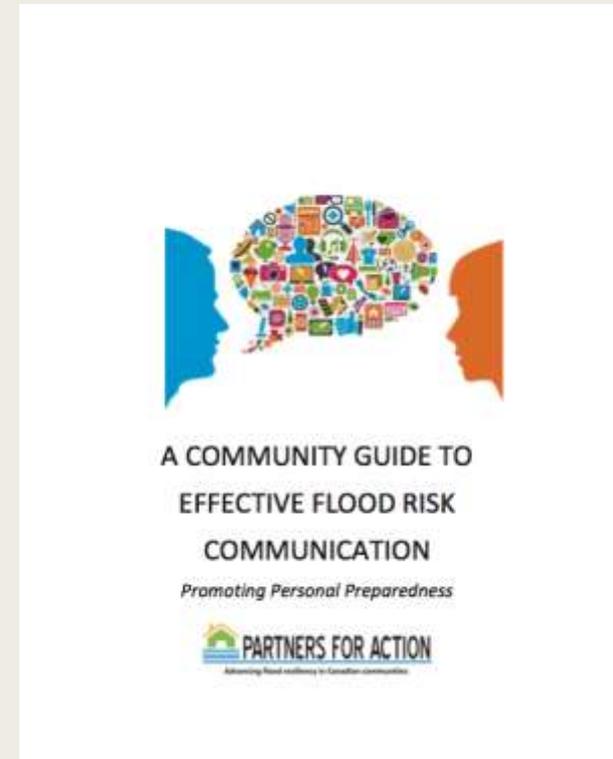
- Information and approaches need to:
 - Convince - anyone can be at risk, any where, any time
 - Demonstrate action – easy, low-cost

- Flood and climate risk communication 'wise' practices

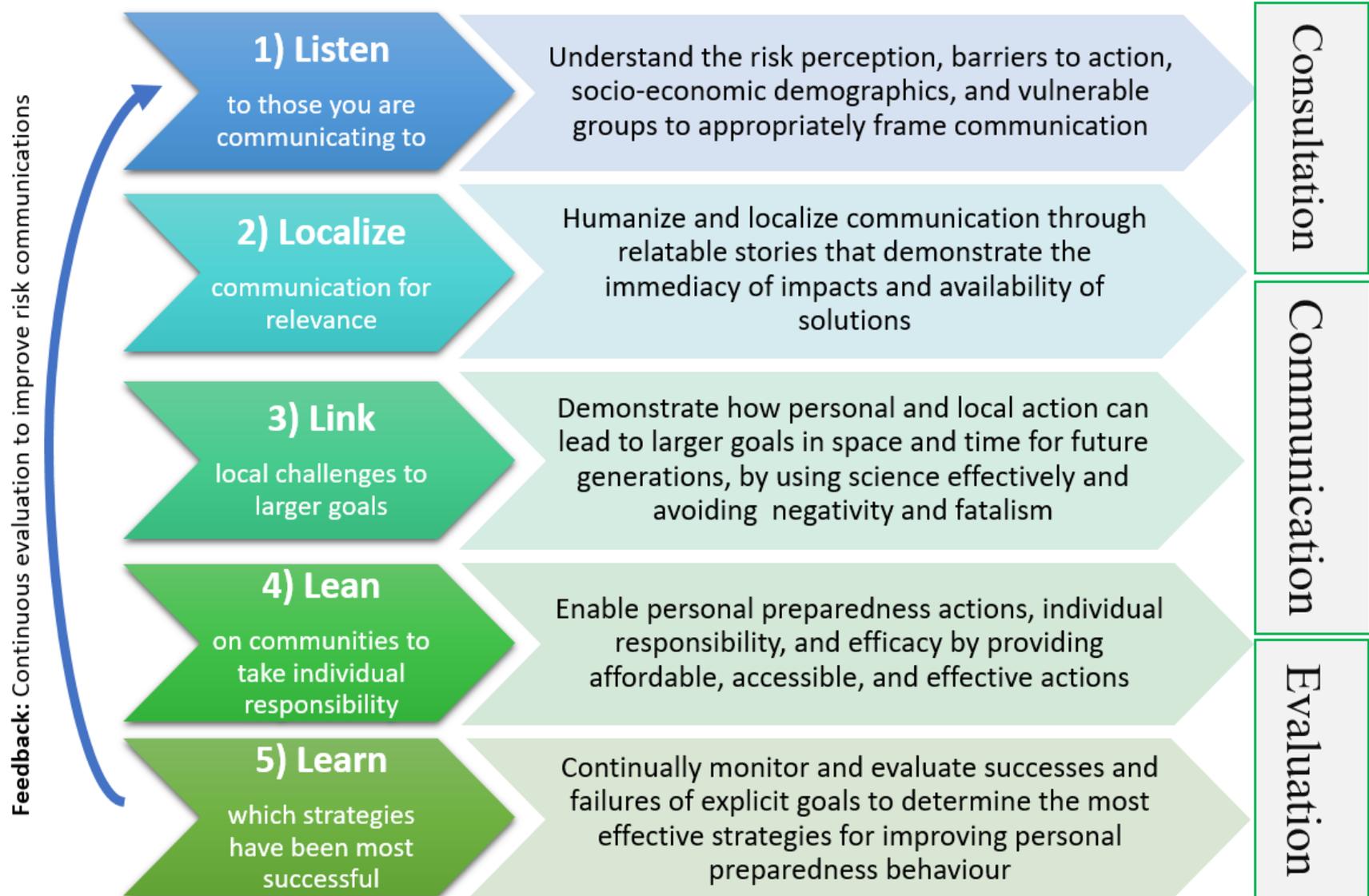
- Approaches that may work in Canada

A Community Guide to Effective Flood Risk Communication - *Promoting Personal Preparedness*

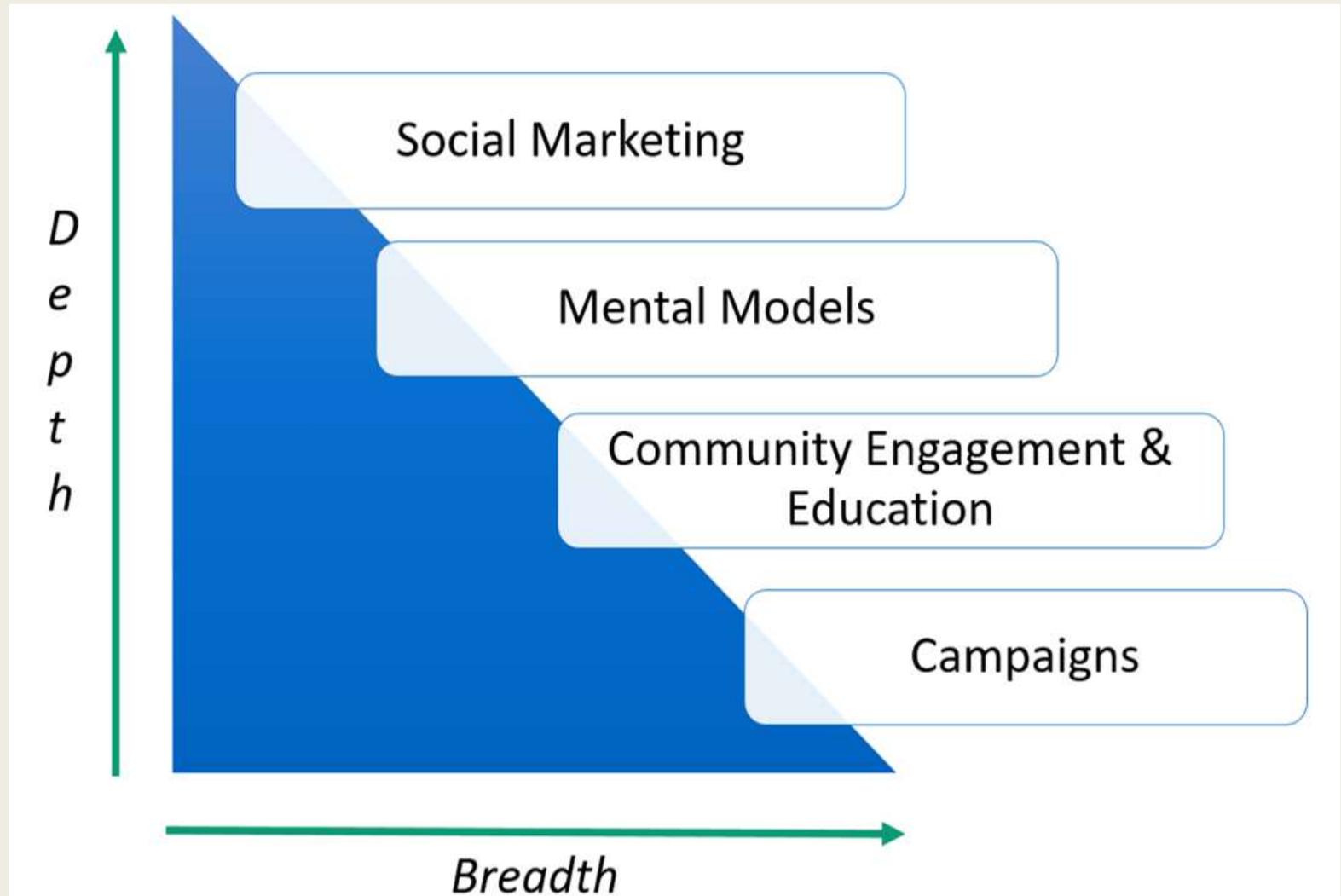
- Overview of best practices and approaches to natural disaster risk communication:
 1. Five Lessons for Effective Flood Risk Communication
 2. Multi-Faceted Approach to Risk Communication
 3. Tools for Effective Flood Risk Communication



The 5 “L’s” of flood risk communication



A multi-faceted approach



Depth = effort required and personalization of communications

Breadth = extent and reach of communications

Tools for Effective Flood Risk Communication



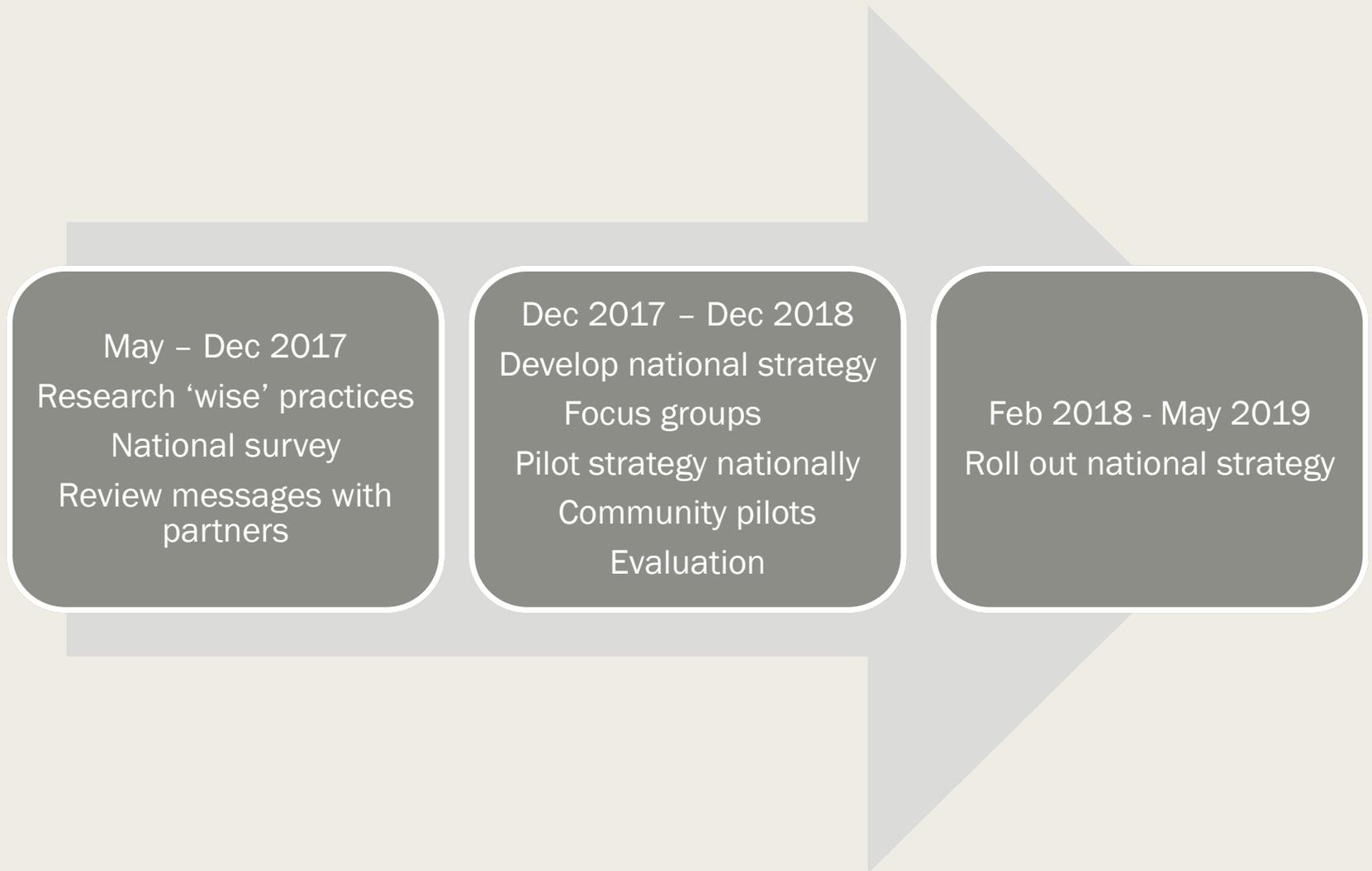
Where do we go from here?

- We need to effectively communicate risk in partnership with government and insurers to close the protection gap:
 - Publicly available flood risk mapping
 - Mandatory risk disclosure
 - A national campaign on disaster risk awareness and insurance availability/requirements (targeted to specific cultural, geographic, and community needs)
- We are looking for partners to help us create and administer messages – insurers, financial institutions, developers, real estate, governments.

FloodSmart Communities

- We know Canadians are uninformed and under-protected against flood risk in an era of climate change.
- This program will inform Canadians about flood risk to understand the challenge, inform decision-making, and create more resilient communities.
- Objectives:
 - Research best practices on flood risk communications.
 - Use focus groups and surveys to determine what works.
 - Pilot test methods for communication of risk.
 - Inform broad audiences about flood risk and what we can do.
 - Partner with diverse stakeholders to develop national-level strategy for implementation.

Project Overview: *Flood Risk Awareness to Action*



Project Partners



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Public Safety
Canada

Sécurité publique
Canada





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