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Bracing for Future Outbreaks: Review of Canadian Design Codes for Housing Wind Resilience

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For most of us, buying a house will be the largest investment that we make. These homes are where we feel like our families and belongings are safe. In general, we assume that since our homes are built by professionals following the building code, they must meet some appropriate level of strength. However, the risks posed by extreme weather are increasing and the national building code hasn't adapted to address these perils for houses. There is a need for updated standards to ensure that houses are built for long-term resilience. I am studying damage caused by extreme wind events and developing cost-effective options for preventing devastating failures. I work with homebuilders to troubleshoot the proposed measures so that future building code changes are more likely to be accepted by the industry. Our goal is to identify the simplest solutions that do the most good to protect communities from weather-induced losses.

Figure 1: Aerial View of house that lost its roof in the Aug. 2018 Alonsa, MB tornado. I was one of two Western researchers sent to survey the damage.