



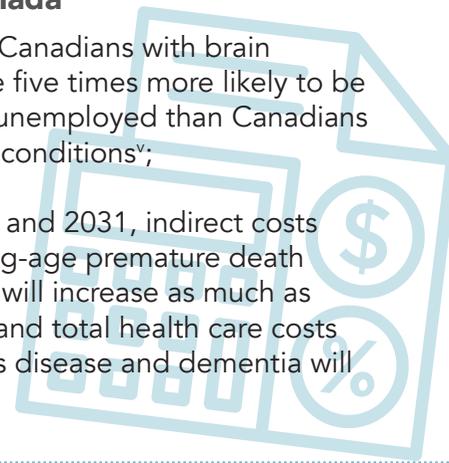
CANADIAN ACTION PLAN FOR BRAIN HEALTH: DRIVING RESEARCH TO ACTION

Brain Health Is Essential to Canada and Canadians

- The brain is the most vital and least-understood organ in the human body. Its role ranges from making sure the heart pumps and the lungs breathe to the most transcendent aspects of human capability;
- The World Health Organization says neurological disorders are one of the greatest threats to public health todayⁱ.
- Brain conditions are the largest cause of disability worldwideⁱⁱ ;
- One in three Canadians will be affected by a brain or nervous system illness, disorder or injury within their lifetimes.

The Costs of Inadequately Addressing Brain Health in Canada

- Neurological and mental health disorders cost the Canadian economy \$61 billion annuallyⁱⁱⁱ - more than cancer and cardiovascular disease combined;
- Brain conditions make it harder to work, succeed academically and participate in everyday activities, resulting in lost income, financial hardship^{iv} and lost productivity for Canada;
- Working-age Canadians with brain conditions are five times more likely to be permanently unemployed than Canadians without brain conditions^v;
- Between now and 2031, indirect costs due to working-age premature death and disability will increase as much as \$8.2 billion^{vi}, and total health care costs for Parkinson's disease and dementia will double^{vii}.



The Impact Is Even More Acute Among Vulnerable Groups

- Women: Disproportionately susceptible to certain brain conditions (multiple sclerosis, dementia, stroke) and more frequently become family caregivers;
- Indigenous communities: Too little is known about how brain conditions affect Indigenous Canadians or on particular family and social impacts. Ambiguity about which level of government is responsible for care;

The Impact Is Even More Acute Among Vulnerable Groups

- People with multiple conditions: Individuals living with a brain condition and a mood or anxiety disorder have reduced access to health and community services and a higher propensity for negative outcomes;
- Children and their caregivers: A quarter of parents whose children have a brain condition experience financial hardship -- pay cuts, demotions or ability to work outside the home^{viii};
- Low income Canadians: A harder impact on individuals whose incomes are already low. More than a third of adults who have a brain condition reported their families had experienced a financial crisis in the previous year^{ix}.

We Can Do Better

- The Government of Canada has started to address this through an important population health study; it is vital that this work continue and identified gaps be addressed as soon as possible.
- NHCC was an integral partner in the government- sponsored study and its report, *Mapping Connections*. The Government of Canada owns the research results: It can also own the solutions. Based on *Mapping Connections* data, we are offering

solutions to improve the lives of people living with brain conditions, and ultimately enhance economic productivity. Connections data, we are offering solutions to improve the lives of people living with brain conditions, and ultimately enhance economic productivity.



SOLUTIONS

Funding: \$55 million over two to five years:

- **Information Infrastructure.** \$5 million over two years. A) Fill the gap of resources for Canadians affected by brain diseases, injuries or disorders who don't have sufficient places to get information on help, services, and support. B) Strengthen information networks between health charities, researchers, policy makers and health care professionals to optimize all other expenditures and activities;
- **Advanced Population Research.** \$20 million over five years. Fund urgently needed gaps in population research for dystonia, Huntington disease, hydrocephalus, muscular dystrophy, spinal cord injury and traumatic brain injury. Add these conditions to the Chronic Disease Surveillance System;
- **Indigenous Brain Health.** \$10 million over five years. Fund research on the impact of brain conditions on First Nations, Inuit and Métis

populations specifically including the direct and indirect social impacts of these conditions on individuals living with brain conditions, caregivers, families and communities;

- **Strategies to help overcome barriers to access.** \$10 million over five years. Develop a strategy to assist individuals who live with both neurological and mental health conditions to overcome barriers in accessing appropriate health services and obtain optimal health;
- **Expanding the Chronic Care Model for Neurological Conditions. \$10 million over two years.** In partnership with the provinces and territories, test the feasibility of adapting the proposed Expanded Chronic Care Model for Neurological Conditions in pilot projects to assess its real-world application as an integrated care model for brain conditions.



NHCC

NEUROLOGICAL HEALTH
CHARITIES CANADA

ABOUT US

Neurological Health Charities Canada (NHCC) is a coalition of organizations that represent people with brain diseases, disorders and injuries in Canada. NHCC joined the Public Health Agency of Canada, the Canadian Institutes of Health Research and Health Canada in planning and co-managing the National Population Health Study of Neurological Conditions (2009-2013). It resulted in Mapping Connections, the report of the most comprehensive study of neurological conditions ever undertaken in Canada.

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THE NEED FOR FUNDAMENTAL BRAIN HEALTH RESEARCH

- Our solutions will start addressing the needs of Canadians living with brain conditions right now. NHCC also supports increased investment in brain health research to find ways to prevent, treat and cure brain conditions.
- **Far too little is known about the causes, prevention and treatment of most brain conditions;**
- **Innovative therapies are available for some brain conditions, but many others remain untreatable.**
- **We are encouraged by the increased funding of health research in budget 2018 and urge, for even more benefit, greater investment and collaboration within the federal research system and with provincial and territorial initiatives.**

ⁱAccessed at http://www.who.int/mental_health/neurology/neurodiso/en/

ⁱⁱGlobal, regional, and national burden of neurological disorders during 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. The Lancet. Accessed at [https://www.thelancet.com/journals/laneur/article/PIIS1474-4422\(17\)30299-5/fulltext](https://www.thelancet.com/journals/laneur/article/PIIS1474-4422(17)30299-5/fulltext)

ⁱⁱⁱReport of INMHA Evaluation Panel from the CIHR Institute of Neurosciences, Mental Health and Addiction. November 2016.

^{iv}Public Health Agency of Canada. Mapping Connections: An understanding of neurological conditions in Canada. Ottawa (ON): Public Health Agency of Canada; 2014. 98 p. Report No.: ISBN 978-1-100-24442-6, pp. 24-24.

^vMapping Connections, p. 24.

^{vi}Mapping Connections, p. 30.

^{vii}Mapping Connections, p. 46.

^{viii}Mapping Connections, p. 26.

^{ix}Mapping Connections, p. 25.