



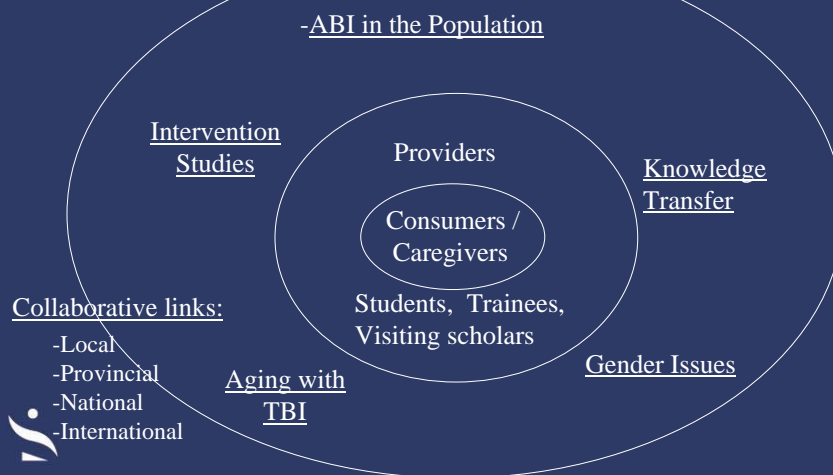
**Toronto Rehab**  
*Advancing Rehabilitation*  
*Enhancing Quality of Life*



## Women and Traumatic Brain injury

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## Improvement of Quality of Life of Adults with ABI



## TBI Definition

- An insult to the brain, not of degenerative or congenital nature but caused by an external physical force, that may produce a diminished or altered state of consciousness, which results in impairment of cognitive abilities or physical functioning (Brain Injury Association).



## TBI definition

- It can also result in the disturbance of behavioral or emotional functioning. These impairments may either be temporary or permanent and cause partial or total functional disability or psychosocial maladjustment.



## Consequences of TBI

- Cognition: concentration, memory, judgment, mood
- Movement abilities: strength, coordination, balance
- Sensation: tactile sensation, special senses such as vision
- Emotion: instability, impulsivity
- Can have long term impact even after “mild” injury
- Has long term sequelae



**Did you know that traumatic brain injury is the leading cause of death and disability in persons under 45 years of age in Canada?**

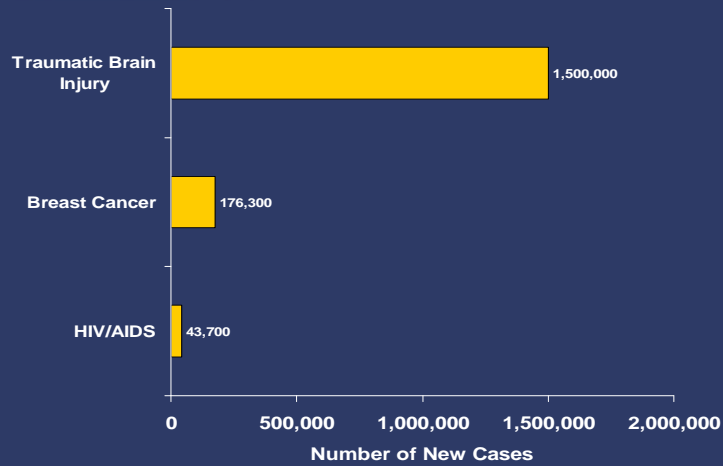


**Brain Injury is a leading cause of death and disability worldwide.**

**Injuries to the brain are among the most likely to result in death and permanent disability**

**International Brain Injury Association**

## **Incidence of Selected Health Problems in the United States**



*Centers for Disease Control, 2003*

## Epidemiology of TBI

- Incidence highest in young adulthood particularly for males
- Increases with older adulthood
- MVC major cause for younger adults
- Falls, major cause for older adults
- Prevalence of morbidity & disablement  
63.1 per 100,000 (Dawson & Chipman, 1995)

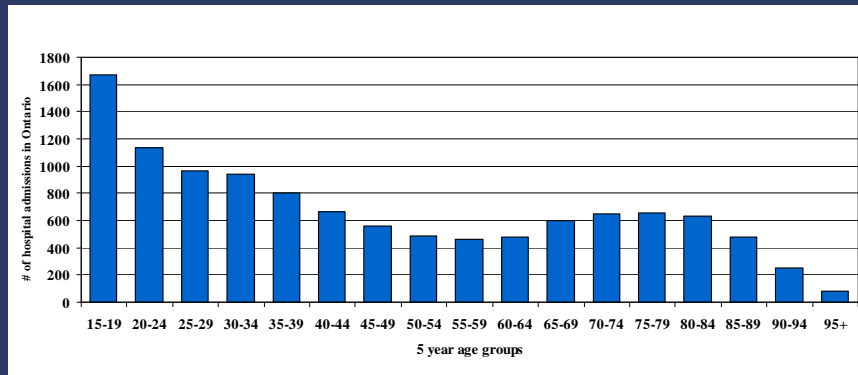


## Other risk factors

- Alcohol/substance Abuse
- Prior psychiatric illness
- Lower socioeconomic status
- Minority status (US)



## Head Injury Hospital Admissions in Ontario (CIHI)



## Aging and TBI

1. Increased survival of persons after injury
2. Many survivors are young and may need a lifetime of post acute care /great impact on caregivers/families
3. Adequate service provision lacking for persons without supplemental health insurance
4. Incidence also peaks in older adulthood a growing segment of our population with more complex needs/including more women



## Women and TBI

- Understudied area
- Review studies found women fare worse overall
- Virtually not data on impact on women's health and related services in post-acute phase
- Mthac pilot funding on this topic

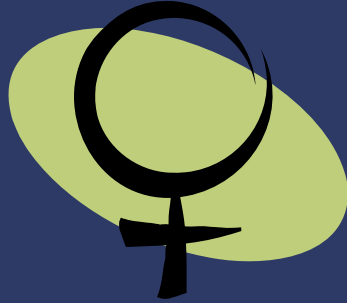


## Understanding Discharge Destination

- Adults injured in motorvehicle crashes (MVCs) more likely to be discharged with services controlling for age, injury severity (Kim, Colantonio, Deber, Vernich, 2006)
- MVC a proxy for private insurance
- Older women more likely to be institutionalized controlling for age, relevant health conditions (Brown, Colantonio, Kim, 2006)\* best poster prize



## Women and TBI



- Mthac-funded pilot data led to 3 yr CIHR funded multi-site study across Ontario
- First of its kind internationally



## Innovative Intervention Studies

- Use of the internet to address inequity of service provision in collaboration with Teresa Chiu from COTA, OBIA and Brain Injury Services Northern Ontario paper & presentation
- Evaluating impact of internet on clinical practice in community (Veronica Law)



## Post acute care in Aboriginal Populations

- 30 % deaths from injury
- 3% of research publications on injury
- Small study showing less likely to be offered post-discharge resources and have fewer family conferences
- Neglected area of research
- Collaboration with M. Keightley/Aboriginal health centres: examined critical issues in this vulnerable population/ ONF funding/1 paper-presentation



## Knowledge Transfer



- Accessible information for both providers and consumers
- Capacity Building: training future leaders in research and clinical practice



## Other M-thac Contributions

- Supported application for major 5 year CIHR Interdisciplinary Capacity Enhancement grant on vulnerable populations to support Mthac work: post acute care on women, aboriginal populations, older adult, use of technology and knowledge transfer/capacity building
- Fundable score received



## Other M-thac Contributions: Assistive Technology

- Provincial gov'ts cover most of the cost of assistive technology (eg wheelchairs)
- Little national data on profile of users
- Mthac funded analyses of data from Canadian study of health and aging profiling older users living in community/institutions
- Resulted in 3 papers, 2 conference presentations, 1 best poster prize..led by trainees (\$6000)



## Community Partners

- Toronto Rehabilitation Institute
- University of Toronto
- Saint Michael's Hospital
- Institute for Clinical and Evaluative Services
- Community Head Injury Resources Services
- Toronto Acquired Brain Injury Network
- Comprehensive Rehabilitation and Mental Health Services
- Community Occupational Therapy Associates
- Sunnybrook Health Sciences Centre
- Women's College Hospital Centre for Research on Women's Health
- Ontario Brain Injury Association
- Hamilton Health Sciences
- York University
- Brain Injury Services of Northern Ontario
- Laurentian University
- Canadian Institute for Health Information
- College of Occupational Therapists of Ontario
- Kenora Area Health Access Centre



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## Thank You!