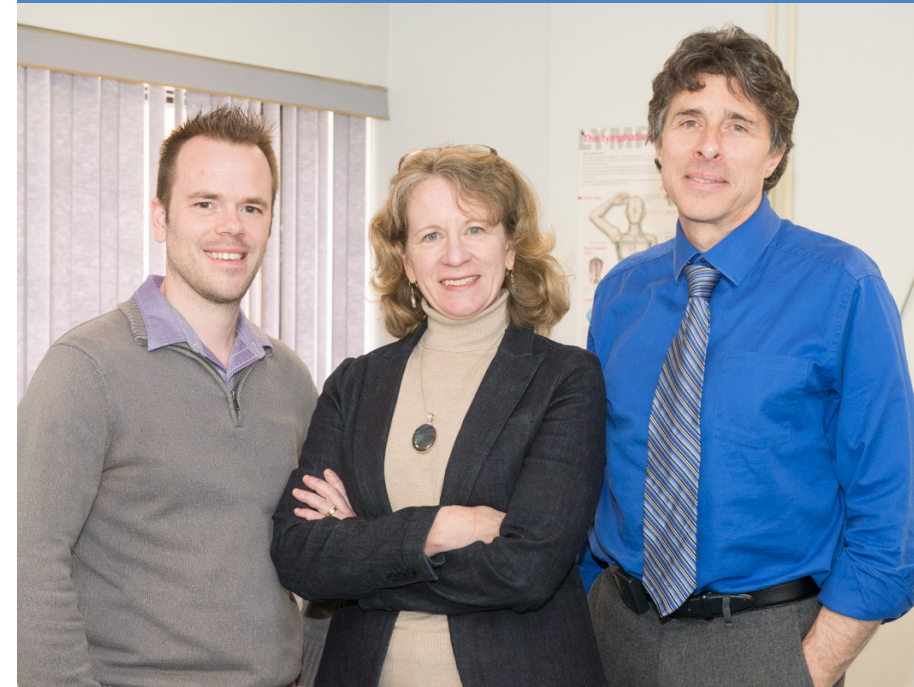


HEALTH RESEARCH INNOVATION TEAM IN MULTIPLE SCLEROSIS (HITMS) NEWFOUNDLAND



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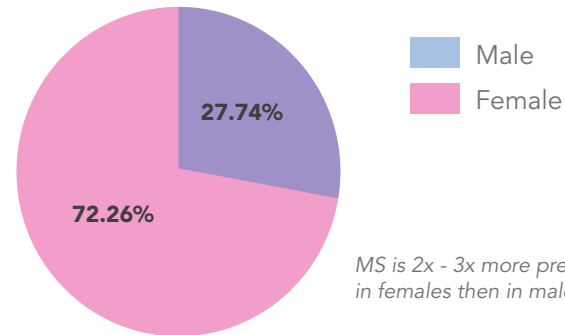
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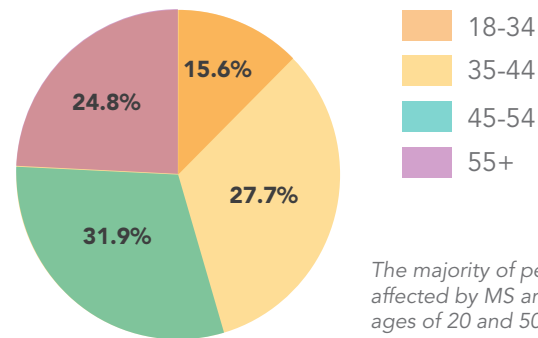
CURRENT NEWFOUNDLAND AND LABRADOR HITMS STATISTICS

Gender Distribution:



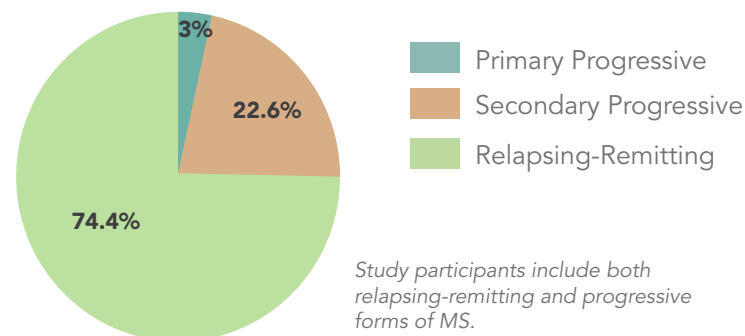
MS is 2x - 3x more prevalent in females than in males.

Age Distribution:



The majority of people that are affected by MS are between the ages of 20 and 50 years old.

MS Subtype:



Study participants include both relapsing-remitting and progressive forms of MS.

HITMS findings are comparable with national statistics

WHAT IS HITMS?

- Canada has the highest rates of MS worldwide and the rates of MS in Atlantic Canada are among the highest in the country.
- Initially launched in 2015, The Health Innovation Team in Multiple Sclerosis (HITMS) is a unique partnership between researchers and clinicians at Eastern Health and Memorial University.
- The goal of the HITMS project is to collect data on overall health, disease symptoms, neuro-immune and blood profiles, and physical and cognitive performance among people living with MS here in Newfoundland and Labrador.
- This collaboration between MS health professionals is the first of its kind in the province.

WHAT IS THE SIGNIFICANCE OF THE HITMS DATABASE?

- The HITMS registry will capture a detailed “footprint” of patient experience and MS related activity over time.
- The HITMS database will provide us with snapshots of the overall health of our current MS population, which has not been available before.
- By participating in this registry patients will be able to follow their personal MS profiles over time and will be kept up to date with any new findings or outcomes from projects undertaken by the HITMS research team.
- MS Patients will be making a significant contribution to the advancement of knowledge into the possible causes of MS, methods by which MS is diagnosed, how MS disease activity behaves overtime, and best treatment options available for patients.

THE THREE PROFILES OF MS:

1. Clinical Profile
2. Neuro-immune Profile
3. Physical/Cognitive Profile

THE CLINICAL PROFILE:

The clinical profile will be developed at your MS clinic located at the Health Sciences Centre and L.A. Miller Center in St. John's. Information related to your overall MS health will be collected by physicians and nurses. This information will be used to compile your unique HITMS registry profile.

Advantages for MS patients:

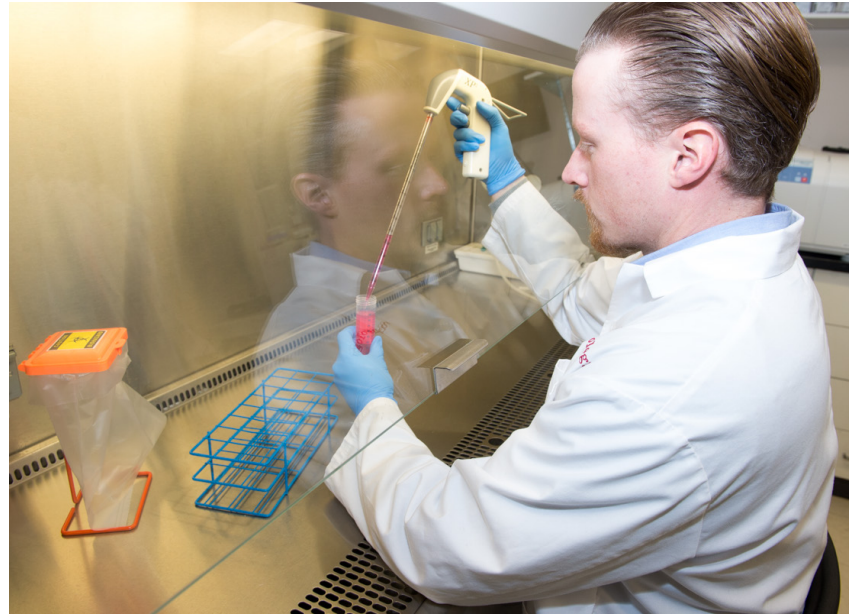
- As a member of this team you will become a more active participant in your ongoing MS care. Upon request, you will have access to the information collected about you at any time throughout the study. In the future, those participating in the HITMS registry will be kept informed of any new findings or outcomes from those research projects undertaken by the HITMS team.

Advantages for the MS clinic:

- The HITMS registry will provide us with a summary of your MS medical history that is easily accessed all in one place. On a day to day basis, this registry will provide a concise, pertinent MS health record for those being seen in our MS clinic.
- This information can be used when deciding the best treatment options for your individual MS experience.



THE NEURO-IMMUNE PROFILE:



The neuro-immune profile is developed in Dr. Moore's neuro-immunology research laboratory located within the Health Sciences Centre in the Faculty of Medicine at Memorial University.

Sample collection:

- During your visit to the MS clinic, blood samples will be drawn for research purposes.
- Your plasma and different types of immune cells (i.e., T cells and B cells) will be isolated and utilized for current and future research projects.

Developing your Neuro-immune Profile:

- The samples collected will be used to develop a specific neuro-immune profile that is unique to you and your current overall MS related health.
- Using your blood, we can conduct experiments that give us insight into how disease modifying therapies (DMTs) are slowing the natural course of MS. These studies also provide insight into how MS is affecting brain cells and what therapeutic intervention may be beneficial to slow or halt the process.
- Your neuro-immune profile will also allow for the Identification of specific MS related biomarkers for the development of methods by which MS can be diagnosed.

THE PHYSICAL/COGNITIVE PROFILE:

Assessments for the physical and cognitive profiles take place at the Recovery and Performance Laboratory, located on the 4th floor at the L.A. Miller Center in St. John's.

The Physical Profile:

- Using sophisticated technology, the physical profile gives you a measure of your physical health.
- We assess walking, jumping, coordination, strength and balance. We also measure how well signals from your brain reach your muscles.
- You will also be asked to complete a physical fitness tests that helps us measure the capacity of your heart and lungs.

The Cognitive Profile:

- Pen and paper activities assess the impact MS has had on your everyday life, and measure your thinking and memory.
- You will be asked to complete multiple cognitive based tests to determine the effect MS has on your cognitive abilities.

The information collected will contribute to our understanding of how MS effects a person's health both physically and cognitively. It will also aid in the development of rehabilitation regimes that can be implemented to improve the overall health of individuals living with MS.

