

Genetic studies have often been hampered by a lack of familial data (pedigrees) that are easily ascertained

Discovering essential genealogical links can help clarify the genetic basis for disease transmission

In the past, researchers looking for genetic links would spend years visiting rural communities, searching church records, and exploring Provincial Archives

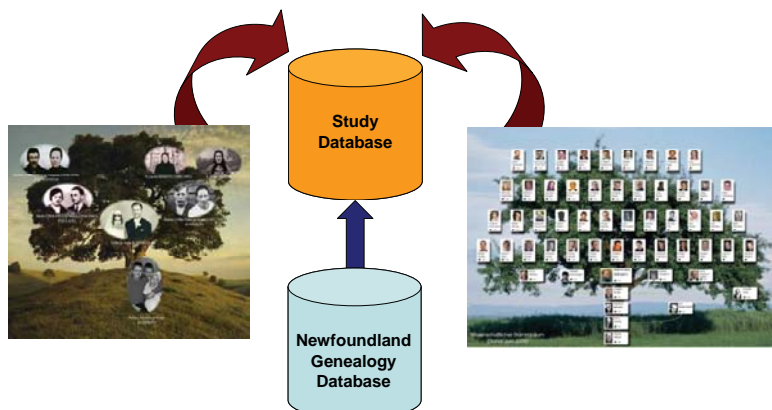


The Population Therapeutics Research Group (PTRG) is leading development of a Heritability Analytics Infrastructure (HAI) in collaboration with the Newfoundland and Labrador Statistics Agency

The HAI project involves creation of a specialized relatedness database through use of pre-Confederation Newfoundland census data, which consists of digitized records developed by the Canadian Century Research Infrastructure (CCRI) - a pan-Canadian initiative to digitize census records from 1911 to 1951

By digitizing census data, relatedness between individuals and families can be obtained and used for health research

This requires obtaining pedigree data from research study participants to put into a Study Database



Relevant information from the Newfoundland Genealogy Database (census records) would link with pedigree data in the Study Database

Resulting genealogy linkage can then be integrated with health outcome or genetic data to determine heritability scores in addition to pedigree analysis and visualization

In using such an infrastructure, critical genealogical linkages could take just minutes instead of years of manual work

Once the data linkage is complete, researchers can proceed with analyses such as relationship integration, segmentation and predictive scoring