

Unnecessary and Redundant? Evaluating Canada’s *Genetic Non-Discrimination Act*, 2017

Kathleen Hammond*

Abstract

In 2017, Canada’s *Genetic Non-Discrimination Act* (GNDA) came into force. The GNDA’s enactment was prompted by concerns about genetic discrimination given the growing amount of genetic data being collected and stored by medical practitioners, but also by for-profit genetic testing companies. Critics have questioned whether discrimination of this kind even exists, and have suggested that the Act, and the changes that it required to the *Canada Labour Code* (CLC) and *Canada Human Rights Act* (CHRA), are redundant. In this paper, I explore the merits of these critiques by evaluating studies, anecdotal evidence, and case law on genetic discrimination. I argue that there is a small but growing body of evidence that genetic discrimination is occurring in Canada. The Act’s amendments to the CLC and CHRA may be somewhat redundant. However, given the growing trend of people thinking of diseases and conditions based on their genetic properties, the privacy concerns raised by genetic data, and the deterrent and symbolic potentials of the Act, I argue that it is an important new tool for preventing and prohibiting what could become a growing basis for discrimination. If the Act, which has been challenged for being *ultra vires* the Parliament of Canada’s jurisdiction over criminal law, is invalidated, its enactment, and this assessment of it, nonetheless provide insight into what desirable *intra vires* legislation might look like at the federal and provincial levels to deal with genetic discrimination.

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* Postdoctoral Fellow with the Research Group on Health and Law in the Faculty of Law at McGill University, and visiting scholar with the Petrie-Flom Center at Harvard University Law School. I would like to thank Lara Khoury, Alana Klein as well as the members of the Research Group on Health and Law for inspiring some of the ideas in this paper. Thank you also goes to Colleen Sheppard for thoughtful comments on an earlier draft of this paper.

Introduction

On May 4th, 2017 Canada’s *Genetic Non-Discrimination Act* (GNDA or “the Act”)¹ received royal assent. The Act came about as a response to concerns about genetic discrimination given the increasing amount of genetic information being collected and stored by medical practitioners, but also by for-profit genetic testing companies like Ancestry.com and the very popular 23andMe. The GNDA follows efforts by other countries to introduce measures (legislative or otherwise) to prohibit and prevent genetic discrimination. Since coming into force, the Act has received a large amount of criticism.² The Act has also been challenged by the Quebec government. The Quebec Court of Appeal found the majority of its sections to be *ultra vires* the Parliament of Canada’s jurisdiction over criminal law.³ The Supreme Court of Canada heard the appeal in the fall of 2019, but has yet to release a decision.⁴

Among the critiques of the Act have been questions about whether discrimination of this kind even exists and whether the Act, and its amendments to the *Canada Labour Code* (CLC)⁵ and *Canada Human Rights Act* (CHRA),⁶ are redundant.⁷ A small but significant body of research hypothesized about the possible effects of genetic discrimination legislation in Canada before it was created.⁸ However, no research has examined the GNDA’s effectiveness since coming into place. This is a particularly opportune point to do so because, similar to the amendment that the GNDA required of the CHRA, Ontario has recently considered adding “genetic discrimination” as a protected ground under its provincial human rights legislation.⁹

In this paper I deal with these first two critiques, which boil down to an argument that the Act is both unnecessary and redundant. I explore the merits of these critiques. I argue that there is a small but growing body of evidence that genetic discrimination is occurring in Canada. The

¹ *Genetic Non-Discrimination Act*, SC 2017, c 3 [GNDA].

² See e.g. André Picard, “Anti-genetic-discrimination bill is little more than virtue signaling”, *The Globe and Mail* (9 March 2017), online: <<https://www.theglobeandmail.com/news/national/anti-genetic-discrimination-bill-is-little-more-than-virtue-signalling/article34261843/>>; Yann Joly, “Do we need legislation to protect Canadians’ genetic rights? The No side”, (10 May 2018), online: <<https://www.theglobeandmail.com/news/national/time-to-lead/do-we-need-legislation-to-protect-canadians-genetic-rights-the-no-side/article6188019/>>.

³ *Dans l’affaire du: Renvoi relatif à la Loi sur la non-discrimination génétique édictée par les articles 1 à 7 de la Loi visant à interdire et à prévenir la discrimination génétique*, 2018 QCCA 2193 [Quebec Reference].

⁴ Leslie MacKinnon, “Genetic non-discrimination bill passed by Parliament, but challenged by government at top court”, *iPolitics* (10 October 2019), online: <<https://ipolitics.ca/2019/10/10/genetic-non-discrimination-bill-passed-by-parliament-but-challenged-by-government-at-top-court/>>.

⁵ *Canada Labour Code*, RSC 1985 c L-2 [CLC].

⁶ *Canada Human Rights Act*, RSC 1985 c H-6 [CHRA].

⁷ André, *supra* note 2; Joly, *supra* note 2.

⁸ See e.g. Trudo Lemmens, Daryl Pullman & Rebecca Rodal, *Revisiting Genetic Discrimination Issues in 2010: Policy Options for Canada*, SSRN Scholarly Paper ID 1722368 (Rochester, NY: Social Science Research Network, 2010) which explored different possible options for addressing genetic discrimination in Canada.

⁹ Meagan Gillmore, “Genetic discrimination unclear in provincial law”, online: *Law Times* <<https://www.lawtimesnews.com/article/genetic-discrimination-unclear-in-provincial-law-16183/>>.

Act's amendments to the CLC and CHRA may be somewhat redundant. However, given the growing trend of people thinking of diseases and conditions based on their genetic properties, the privacy concerns raised by genetic data, and the deterrent and symbolic potentials of the Act, I argue that it is an important new tool for preventing and prohibiting what could become a growing basis for discrimination. If the Act is invalidated for being *ultra vires*, its enactment, and this assessment of it, nonetheless provide insight into what desirable *intra vires* legislation might look like at the federal and provincial levels, to deal with genetic discrimination.

In order to make this argument, I begin by first exploring the context surrounding why the GNDP was introduced. I explain the Act itself and briefly speak to its current challenge by the Quebec government. I then turn to the two critiques of the Act: firstly, that there is insufficient evidence that genetic discrimination is occurring, and secondly, that the Act and its amendments to the CLC and CHRA, are redundant. In assessing these two critiques I rely on the small body of studies, anecdotal evidence, and case law on genetic discrimination, focusing on the Canadian context. I conclude by making recommendations for *intra vires* legislation at the federal and provincial levels for dealing with genetic discrimination.

Context

The Human Genome Project

Concerns around the improper use of genetic information began with the advent of the Human Genome Project (HPG). The HPG was an international collaborative research program that was formally launched on October 1, 1990 and completed on April 14, 2003.¹⁰ The goal of the project was to map and understand the complete set of genetic instructions of human beings. All humans, and almost all other organisms, have the hereditary material deoxyribonucleic acid (DNA), which contains all of our genes. The information in DNA is stored as a code made up of four chemical bases.¹¹ Genes are made up of stretches of these four different bases. They are arranged in different ways and in different lengths. The order and sequence of this information determines the information for building and maintaining an organism. The project revealed that there are about 20,500 human genes.¹² In addition to revealing these genes, the HPG provided an understanding of the structure and organization of human genes. It did this firstly through providing the different order or sequence of all the bases in DNA. Second, the HPG made maps that illustrate the locations of genes for major sections of our chromosomes. Third, it provided linkage maps. These allow us to track inherited traits (like genetic diseases) over generations.¹³

Genetic Testing by Medical Practitioners and For-Profit Genetic Testing Companies

The information (like maps) and technological advances made by the HPG have made it much easier to collect and to understand people's genetic data. For instance, gene-isolation

¹⁰ Francis S Collins, "Medical and Societal Consequences of the Human Genome Project" (1999) 341:1 New England Journal of Medicine 28.

¹¹ "An Overview of the Human Genome Project", online: *National Human Genome Research Institute (NHGRI)* <<https://www.genome.gov/12011238/an-overview-of-the-human-genome-project/>> [Human Genome Project]. These four bases are: adenine, guanine, cytosine and thymine.

¹² The first draft of the human genome was published in "Nature" in February 2001. See International Human Genome Sequencing Consortium, "Initial sequencing and analysis of the human genome" (2001) 409:6822 Nature 860.

¹³ Human Genome Project, *supra* note 11.

techniques¹⁴ have allowed researchers to confirm whether a disease has a genetic basis and to identify the responsible gene.¹⁵ This means that by looking at someone's genetic information, medical practitioners can diagnose genetic conditions or identify a predisposition to a genetic disease.¹⁶ This is completely re-defining the way that we look at disease. Before genetic testing, genetic diseases were characterized by clinical signs and symptoms, which are the manifestations of gene abnormalities. Now, genetic diseases are being characterized by their underlying genotypes, meaning by people's genes themselves.¹⁷ Even where a gene's role in disease is not yet fully understood, diagnosis can be used to guide reproductive planning, treatment, or encourage people to adopt lifestyles to prevent or minimize the development of the health consequences. It can also help to identify patients who would be well-suited to gene therapy, which can involve correcting, replacing or eliminating a mutated gene.¹⁸ New tests are being developed rapidly and are becoming increasingly available in health care settings. This means that the amount of genetic information being collected and stored in publicly funded biobanks is growing exponentially.

In addition to the collection of genetic information by healthcare practitioners, genetic testing is also being conducted by commercial interests. Genetic testing companies are now aggressively marketing to consumers. What is called the "direct-to-consumer" (DTC) genetic health test industry began in 1996.¹⁹ The idea was that consumers could explore their own human genome without a medical practitioner to help them. This industry has since boomed with companies like 23andMe and Ancestry.com. These companies collect DNA information through saliva samples and give patients a genotype readout. Other companies offer to reanalyze this data. Recent DTC industry estimates are that over 12 million people are now using these tests.²⁰

Genetic Discrimination

This growing knowledge about human genetics, and the greater use and proliferation of genetic tests, has many possible benefits, but also many potential hazards.²¹ One such hazard is the inappropriate collection, storage and use of this genetic information and the potential for genetic discrimination. Genetic discrimination is defined as "the denial of rights, privileges, opportunities or other adverse treatment based solely on genetic information, including family history or genetic test results."²² This form of discrimination results because of actual or

¹⁴ Also known as positional cloning.

¹⁵ Collins, *supra* note 10.

¹⁶ Yvonne Bombard, Ronald Cohn & Stephen Scherer, "Why we need a law to prevent genetic discrimination", *The Globe and Mail* (19 September 2016), online: <<https://www.theglobeandmail.com/opinion/why-we-need-a-law-to-prevent-genetic-discrimination/article31936476/>> note that 6000 genetic diseases have been discovered as of yet.

¹⁷ Joseph S Alper et al, "Genetic Discrimination and Screening for Hemochromatosis" (1994) 15:3 *J Public Health Pol* 345 at 345.

¹⁸ Bombard, Cohn & Scherer, *supra* note 16; Collins, *supra* note 10.

¹⁹ Scott Bowen & Muin Khoury, "Consumer Genetic Testing Is Booming: But What are the Benefits and Harms to Individuals and Populations?", online: *Genomics and Health Impact Blog* <<https://blogs.cdc.gov/genomics/2018/06/12/consumer-genetic-testing/>>.

²⁰ Science News Staff, "Special report: Genetic testing goes mainstream", (22 May 2018), online: *Science News* <<https://www.sciencenews.org/article/consumer-genetic-testing-ancestry-dna>>.

²¹ Lisa N Geller et al, "Individual, family, and societal dimensions of genetic discrimination: A case study analysis" (1996) 2:1 *Sci Eng Ethics* 71.

²² Cheryl Erwin et al, "Perception, experience, and response to genetic discrimination in Huntington disease: The international RESPOND-HD study" (2010) 153 *Am J Genet Part B* 1081 at 1082; See also Lawrence O. Gostin,

presumed genetic differences.²³ As disease and impairment begin to be defined by their underlying genetic cause, individuals will face discrimination on the basis of their genotype, and irrespective of whether they have resulting symptoms.²⁴

Genetic testing, and this focus on identifying “problems” in people’s genetic information stems from a medical model of disability. The medical model of disability is shaped by conceptions of normality and abnormality. Society demands conformity to idealized physiological norms.²⁵ The medical model views disability as a medical problem or “abnormality” that exists in a person’s body and that does not conform to these bodily norms.²⁶ Genetic testing supports this way of thinking by identifying “abnormalities,” “mutations” or “pathologies” in people’s bodies. These impairments are thought to cause disadvantages, or disabilities, for the person.²⁷

The medical model elicits a medical response to disability, as though it needs to be treated or cured.²⁸ One of the narratives in support of genetic testing is that it allows medical professionals to intervene in order to help avoid the suffering associated with an impairment.²⁹ In so doing, however, the medical model reduces and invalidates impaired bodies by regarding them as “abnormal, deviant, inferior, and even sub-human.”³⁰

Many disability scholars and activists have responded to the problems that exist with the medical model. Simon Brisenden, for instance, argues that the only difference between people with impairments and those without impairments are that society looks at people with impairments through a lens that only focuses on their limitations.³¹ To replace the medical model, disability scholars have adopted the social model of disability. This model relies on a distinction between impairment and disability. With a medical model, a person’s impairment is thought to be the cause of the disadvantages experienced.³² However, in a social model of disability “impairment” or “disease” are just descriptions of the body. The impairment may or may not be evaluated as

“Genetic discrimination: the use of genetically based diagnostic and prognostic tests by employers and insurers” (1991) 17:1–2 *Am J Law Med* 109. Note the Canada Human Rights Commission definition of discrimination which defines it as “an action or decision that treats a person or a group badly for reasons such as their race, age, or disability.” See, Canada Human Rights Commission, “What is Discrimination?”, online: *About Human Rights* <<https://www.chrc-ccdp.gc.ca/eng/content/what-discrimination>>.

²³ Geller et al, *supra* note 21.

²⁴ Alper et al, *supra* note 17 at 345.

²⁵ Simon Brisenden, “Independent Living and the Medical Model of Disability” in Tom Shakespeare, ed, *The Disability Studies Reader: Social Science Perspectives* (New York: Cassell, 1998) 20 at 23.

²⁶ Goering, Sara. “Rethinking disability: the social model of disability and chronic disease” (2015) 8:2 *Curr Rev Musculoskelet Med* 134–138 at 134; Natasha Saltes, “‘Abnormal’ Bodies on the Borders of Inclusion: Biopolitics and the Paradox of Disability Surveillance” (2013) 11:1/2 *Surveillance & Society* 55–73 at 57.

²⁷ Liz Crow, “Including All of Our Lives: Renewing the Social Model of Disability” in Jenny Morris, ed, *Encounters with Strangers: Feminism and Disability* (London: Women’s Press, 1996) 206.

²⁸ Michael Oliver, *Understanding Disability: From Theory to Practice* (New York: St Martin’s Press, 1996) at 58.

²⁹ Tom Shakespeare, “‘Losing the plot’? Medical and activist discourses of contemporary genetics and disability” (1999) 21:5 *Sociology of Health & Illness* 669–688 at 669.

³⁰ Fiona Kumari Campbell, *Contours of Ableism: The Production of Disability and Abledness* (London: Palgrave Macmillan, 2009) cited in Ema Loja et al., “Disability, embodiment and ableism: stories of resistance” (2013) 28:2 *Disability & Society* 190–203 at 191.

³¹ Brisenden, *supra* note 25 at 23

³² Crow, *supra* note 27.

negative by the person possessing it.³³ Disability is reframed as a social construct.³⁴ Disability is the “disadvantage or restriction of activity caused by a contemporary social organization which takes no or little account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities.”³⁵ Thus, disability emerges from social practices that do not take into account the needs of people with impairments.

The medical model continues to persist and has underscored a long history of discriminatory laws and practices that have been directed towards people with disabilities.³⁶ For instance, in Canada, the *Living Archives* project reveals the history of eugenics in Canada, particularly in Western Canada.³⁷ It reveals how laws were used to authorize the institutionalization and sterilization, without consent, of individuals diagnosed as “mentally defective.”³⁸ This project explores the relationship between this history and current practices, such as in biomedicine. Apprehensions about eugenic intents behind genetic testing technologies have raised concern about whether genetics are “a totalitarian conspiracy to rid the world of disabled people.”³⁹

Research has also investigated the ways in which the medical model of disability leads people with disabilities to being undervalued, feeling excluded, and being denied equal opportunities.⁴⁰ The lives of peoples with disabilities are over-regulated and their privacy often invaded on. Every facet of the lives of people with disabilities have been regulated including sexual relations, marriage, procreation, and child-rearing.⁴¹ Roger J.R. Levesque for instance describes the ways that the private relations of people with disabilities have been regulated in the United States in ways that disenable them.⁴² Natasha Saltes explains how people with disabilities are subject to additional surveillance.⁴³ Saltes employs the concept “disability surveillance” to encapsulate the data collection, documenting and monitoring of impairment, which she argues is used as a form of social sorting.⁴⁴ Disability surveillance is often carried out in a way that excludes people with disabilities’ access to resources. When this is the case, disability is defined in terms of a functional limitation and people with disabilities “are seen as those with non-normative bodies that pose a risk.”⁴⁵

The proliferation of genetic testing and the collection of genetic information exacerbates concerns for people with disabilities because of its potential for privacy infringement, use for

³³ Goering, *supra* note 26 at 135.

³⁴ Oliver, *supra* note 28.

³⁵ *Ibid* at 22.

³⁶ See e.g. David Pfeiffer, “Eugenics and Disability Discrimination” (1994) 9:4 *Disability & Society* 481–499.

³⁷ Colette Leung, “Profile: The Living Archives Project: Canadian Disability and Eugenics” (2012) 1:1 *Canadian Journal of Disability Studies* 143–166.

³⁸ E.g. in Alberta people were sterilized under the authority of the Sexual Sterilization Act. See Jana Grekul, Arvey Krahn & Dave Odynak, “Sterilizing the ‘Feeble-minded’: Eugenics in Alberta, Canada, 1929–1972” (2004) 17:4 *Journal of Historical Sociology* 358–384.

³⁹ Shakespeare, *supra* note 29 at 669.

⁴⁰ Saltes, *supra* note 26 at 55; Gostin, *supra* note 22 at 112.

⁴¹ See e.g. Roger J R Levesque, “Regulating the Private Relations of Adults with Mental Disabilities: Old Laws, New Policies, Hollow Hopes” (1996) 14:1 *Behavioral Sciences & the Law* 83–106.

⁴² *Ibid*.

⁴³ Saltes, *supra* note 26.

⁴⁴ *Ibid* at 70.

⁴⁵ *Ibid* at 56.

surveillance and the potential for discrimination on the basis of genetics. In particular, a number of scholars have raised concerns about the the potential for discrimination on the basis of genetic information in employment and insurance contexts.⁴⁶ Since in Canada health care is publicly-funded, it is anticipated that this discrimination will occur in regards to disability and life insurance.⁴⁷ There are also concerns for genetic discrimination in the education, adoption, and immigration contexts.⁴⁸

Genetic Anti-Discrimination Laws Around the World

In response to concerns about genetic discrimination, a number of countries, including Australia, France and the United States, have passed laws to address this. Many of these laws rely on the social model of disability. The United Nations also passed resolutions addressing the use of human genetics such as the *Universal Declaration on the Human Genome and Human Rights*, 1997.⁴⁹ Most countries have taken one of two different approaches to dealing with concerns around genetic discrimination. The first approach involves adding prohibitions against genetic discrimination to human rights legislation and/or creating specific legal rules for insurance providers and employers.⁵⁰ For instance, the United States adopted the *Genetic Information Non-Discrimination Act*, 2008 (GINA).⁵¹ GINA deals with genetic testing in the context of health insurance and employment.⁵² Through amending other pieces of federal legislation it prohibits a group health plan from denying coverage or adjusting a person's premiums on the basis of genetic predisposition. It allows individuals to make complaints against employers when they experience discrimination that adversely affects their status or deprives them of employment opportunities.

The second approach that countries have taken is to adopt privacy legislation that specifically deals with the collection and use of genetic data.⁵³ The United Kingdom's approach, although non-legislative, falls within this second category of approaches. In the UK, employers and insurance providers have to abide by the *Data Protection Act* 1998 in the way that they deal with genetic information. Much like Canada's privacy laws, this Act has rules surrounding the use of

⁴⁶ Gostin, *supra* note 22; Mark A Rothstein, "GINA, the ADA, and Genetic Discrimination in Employment" (2008) 36:4 J Law Med Ethics 837; M R Natowicz, J K Alper & J S Alper, "Genetic discrimination and the law" (1992) 50:3 Am J Hum Genet 465; Jill Gaubing, "Race, Sex, and Genetic Discrimination in Insurance: What's Fair?" (1995) 80:6 Cornell Law Review 1646; Kathy L Hudson et al, "Genetic Discrimination and Health Insurance: An Urgent Need for Reform" (1995) 270:5235 Science 391.

⁴⁷ Yann Joly & Bartha Maria Knoppers, "Physicians, genetics and life insurance" (2004) 170:9 Canadian Medical Association Journal 1421; Trudo Lemmens, *Selective Justice, Genetic Discrimination, and Insurance: Should We Single Out Genes in Our Laws?* SSRN Scholarly Paper ID 1137727 (Rochester, NY: Social Science Research Network, 2010).

⁴⁸ Lemmens, *supra* note 47; Trudo Lemmens, Daryl Pullman & Rebecca Rodal, *supra* note 8.

⁴⁹ *Universal Declaration on the Human Genome and Human Rights* (Geneva: United Nations Educational, Scientific and Cultural Organization, 1997).

⁵⁰ Julian Walker, "Genetic Discrimination and Canadian Law" (2014) Publication No. 2014-90-E Library of Parliament Research Publications, online: <https://lop.parl.ca/sites/PublicWebsite/default/en_CA/ResearchPublications/201490E#ftn2>.

⁵¹ *Genetic Information Nondiscrimination Act of 2008 H.R.493 - 110th Congress [GINA]*.

⁵² GINA does not cover life insurance, disability insurance, or long-term care insurance.

⁵³ See e.g. Germany's *Human Genetic Examination Act, Gesetz über genetische Untersuchungen bei Menschen Gendiagnostikgesetz*, GenDG 379/09. For an explanation of how the Act functions see Sirpa Soini, "Genetic testing legislation in Western Europe—a fluctuating regulatory target" (2012) 3:2 J Community Genet 143.

personal information. In 2001, the insurance industry in the UK voluntarily implemented a restrictive agreement: the *Concordat and Moratorium on Genetics and Insurance*. Insurers agreed that customers would not be asked to undergo a predictive genetic test to obtain insurance or to disclose their own genetic test results or those of another person, like a close relative.⁵⁴

Canada's Genetic Non-Discrimination Act, 2017

Canada's GNDA began as Bill S-201, which was a Senate Public Bill introduced by Senator James S. Cowan in December 2015. The Act falls most closely into that first category of approaches taken by countries to deal with genetic discrimination. Its stated objective is to prohibit and prevent genetic discrimination. It includes a number of offences.⁵⁵ Section 3(1) of the Act makes it a criminal offence for anyone to require an individual to undergo a genetic test in order to provide them goods and services, enter into or continue a contract with someone, or offer or continue specific terms or conditions in a contract.⁵⁶ Per section 3(2) a person also cannot refuse to engage in any of those activities outlined in section 3(1) because an individual has refused to undergo genetic testing. Persons engaged in the activities described in 3(1) cannot require that someone disclose the results of a genetic test already taken, or refuse to engage in these activities until the test results are shared. You also need to have someone's written consent to collect, use, or disclose their genetic results. Persons who contravene these sections of the Act are guilty of an offence. If they are convicted on indictment they could receive a fine not exceeding \$1 million or be imprisoned for up to five years, or both. If they are convicted on a summary offence, they could receive a fine not exceeding \$300,000 or be imprisoned for up to 12 months, or both.⁵⁷ It is important to note that there is an exemption in the Act. Section 6 makes it clear that the offences do not apply when people are providing medical or pharmaceutical care or conducting medical or scientific research.⁵⁸

Bill S-201 also amended the CLC and CHRA. The CLC applies largely to employment issues among industries within federal jurisdiction. Bill S-201 added two new sections (247.98 and 247.99) which form their own subdivision in the CLC. Section 247.98 protects employees from having to undergo a genetic test or disclose the results of a test they have already taken.⁵⁹ Employers cannot take actions like dismiss or refuse to pay an employee because of the results of an employee's test, or because an employee refuses to take a genetic test.⁶⁰ No other person is allowed to disclose to an employer that an employee has taken a genetic test, or the results of that test.⁶¹ Section 247.99 sets out provisions for the enforcement of 247.98. If someone makes a complaint, then this is sent to an inspector designated by the Minister of Labour. The inspector tries to help parties settle the dispute, and if this fails then the Minister may appoint an adjudicator who can take steps such as to reinstate the employee.⁶²

⁵⁴ There are some exceptions such as for life insurance policies over £500,000.

⁵⁵ These are included in the Act, rather than being introduced as amendments to an existing law, like the *Criminal Code*, RSC 1985, c C-46.

⁵⁶ *GNDA*, *supra* note 1.

⁵⁷ *Ibid* at s 7.

⁵⁸ *Ibid*.

⁵⁹ *CLC*, *supra* note 5 at s 247.98(2) and (3).

⁶⁰ *Ibid* at s 247.98(4).

⁶¹ *Ibid* at s 247.98(5) and (6).

⁶² *Ibid* at s 247.99(4) and (5).

The CHRA applies to federally regulated activities such as federal government departments and agencies, crown corporations, and federally regulated businesses. Canadian provinces and territories have human rights law dealing with matters in their own jurisdiction.⁶³ Section 3(1) of the CHRA sets out prohibited grounds of discrimination that include race, national or ethnic origin, religion, age, sex, sexual orientation, and disability, among others. The Act sets out in sections 5 through 14.1 different discriminatory practices like denying access to goods and services,⁶⁴ or refusing to employ or continue to employ someone⁶⁵ on the basis of prohibited grounds. Bill S-201 caused the CHRA to be edited to include “genetic characteristics” in the purpose section of the Act⁶⁶ and as a listed prohibited ground.⁶⁷ When it was introduced, the Bill included a definition of discrimination on the ground of genetic characteristics.⁶⁸ This definition was not ultimately included, so the Canadian Courts and Canada Human Rights Tribunal will have to interpret it.⁶⁹

The Quebec Government’s Challenge of the GNDA

The Quebec government has challenged whether the GNDA is *ultra vires* the Parliament of Canada’s jurisdiction over criminal law. The Government of Quebec referred the question to the Quebec Court of Appeal, where a five-judge panel found that the purpose of sections 1-7 of the Act is not to prohibit genetic discrimination. Rather, the Act’s purpose is to encourage access to genetic tests for medical purposes by helping to alleviate people’s fear that this information could lead to discrimination against them, particularly in employment and insurance contexts.⁷⁰ This is not a criminal law object, which would fall under federal jurisdiction, as there is no real evil here. Fostering and promoting health cannot constitute a primary criminal law object.⁷¹ These have to do with the regulation of contracts and the provision of goods and services – an area of provincial jurisdiction.⁷² There was no issue taken with sections 8 through 10 of the Act which amend the CHRA and CLC. The court argued that the prohibition of discrimination based on genetic characteristics only actually appears in sections 9 and 10 which amend the CHRA.⁷³ An intervener, the Canadian Coalition for Genetic Fairness, filed the appeal to the Supreme

⁶³ These laws have been considered to have quasi-constitutional status, and so the rights they contain have greater protection. E.g. see *Zurich Insurance Co v Ontario (Human Rights Commission)* [1992] 2 SCR 321.

⁶⁴ *CHRA*, *supra* note 6 at s 5.

⁶⁵ *Ibid* at s 8.

⁶⁶ *Ibid* at s 2.

⁶⁷ *Ibid* at s 3(3).

⁶⁸ Bill S-201, *An Act to prohibit and prevent genetic discrimination*, 8 December 2015 (first reading version as passed in the Senate) [Bill S-201]. The definition set out that this was discrimination based on the results of a genetic test, refusing to take a genetic test, or refusal to disclose or authorize disclosure of the results.

⁶⁹ Walker, *supra* note 50.

⁷⁰ *Quebec Reference*, *supra* note 3 at para 11.

⁷¹ *Ibid* at para 21.

⁷² *Constitution Act*, 1867 (UK), 30 & 31 Vict, c 3, reprinted in RSC 1985 Appendix II, No 5. at s 92(13) and (16).

⁷³ *Quebec Reference*, *supra* note 3 at para 20.

Court of Canada, which was heard this fall 2019.⁷⁴ If the Supreme Court of Canada comes to a similar decision to the Quebec Court of Appeal, then the Act will be invalidated.⁷⁵

Criticisms of the Act

In the years leading up to the passing of the GNDA there was much debate about what steps should be taken, if any, to prevent genetic discrimination in Canada.⁷⁶ Possible policy options were explored by a large number of research groups, governmental departments and agencies, advisory bodies and task forces.⁷⁷ During the time that policy options were being debated, there were questions around whether genetic discrimination is just a rhetorical concern, or whether there is any evidence of its occurrence. Another question had to do with whether the human rights and policy laws that existed at the time were already equipped to deal with genetic discrimination. In other words, did we even need legislation specifically dedicated to genetic discrimination, or were people already protected under existing legislation? For instance, genetic information could be associated with a number of existing prohibited grounds of discrimination in provincial human rights legislation and the CHRA. As outlined above, the CHRA already set out (in sections 5-14.1) different discriminatory practices on the basis of prohibited grounds, like denying access to goods or services, or refusing to employ or continue to employ someone. The CLC also protects employees from unfair treatment like unjust dismissal.⁷⁸ Refusing to take a genetic test, to disclose results from a test, or having test results that show a genetic disease would all be unjust reasons to dismiss an employee. These questions have persisted since the GNDA came into force. The validity of these arguments are the focus of this next section.

The GNDA, as well as Changes to the CLC and CHRA are Not Unnecessary

In this section I argue that genetic discrimination is occurring. I highlight examples from existing research, anecdotal reports on genetic discrimination as well as a number of cases being brought on the basis of genetic discrimination.

Studies and Anecdotal Experiences of Genetic Discrimination

Most of the research on genetic discrimination has taken place in the United States, although a small number of studies have extended to Canada and Australia.⁷⁹ Data for these studies was collected through questionnaire, or through a questionnaire with a follow-up phone interview.

⁷⁴ “Québec Court of Appeal Strikes Down Federal Genetic Non-Discrimination Act”, (24 January 2019), online: *Fasken* <<https://www.fasken.com/en/knowledgehub/2019/01/quebec-court-of-appeal-strikes-down-federal-genetic-non-discrimination-act>>; Julia Kalinina, “QCCA Says Prohibitions on Genetic Discrimination Are Not Valid Use of Federal Criminal Law Power”, (21 January 2019), online: *theCourt.ca* <<http://www.thecourt.ca/qcca-rejects-as-unconstitutional-legislation-criminalizing-breaches-of-genetic-privacy/>>.

⁷⁵ Yann Joly, Gratien Dalpé & Miriam Pinkesz, “Is Genetic Discrimination Back on the Radar? A Commentary on the Recent Court of Appeal Reference Decision on the Genetic Non- Discrimination Act (GNDA)” (2019) 2:2 *Canadian Journal of Bioethics* 94 at 95.

⁷⁶ See e.g. Lemmens, Pullman & Rodal, *supra* note 8 who explored three possible options for addressing genetic discrimination. These include: (1) strengthening existing human rights and privacy regimes, (2) a new regulatory framework for genetic-testing, and (3) sector-specific solutions for insurance.

⁷⁷ These include: the Canadian Genome Analysis and Technology Program, a federal inter-departmental initiative on genetic information and privacy by the Department of Justice in 2001-2002, and a Provincial Advisory Committee on New Predictive Genetic Technologies. See *ibid* at 2 for a comprehensive list.

⁷⁸ CLC, *supra* note 5 at s 240.

⁷⁹ E.g. Erwin et al, *supra* note 22 collected data from individuals in the United States, Canada and Australia who were at risk for Huntington’s Disease.

The research indicates a few key findings. Firstly, there is clear support of systemic genetic discrimination among people at risk for Huntington's Disease (HD), hemochromatosis, phenylketonuria (PKU), and mucopolysaccharidoses (MPS), and those with the gene mutation for these diseases.⁸⁰ This discrimination happened irrespective of whether people had symptoms or not. People at risk of these diseases alleged discrimination largely by health and life insurance companies.⁸¹ Erwin and colleagues, who looked at Americans, Canadians and Australians, found that individuals at risk for HD deemed discrimination with insurance to be the most significant. Significance was not based on statistical significance but rather on how meaningful the event was to the person within the context of their life.⁸²

Alper and colleagues found that individuals with hemochromatosis had faced problems with life insurance companies refusing to insure them, and with being rejected from individual health insurance.⁸³ There were also cases of discrimination among people at risk for HD, hemochromatosis, PKU, and MPS involving employers,⁸⁴ adoption services, and blood banks. Individuals with the HD mutation, and those who were at risk, but had not been tested, experienced discrimination in family and social settings,⁸⁵ and a small number experienced discrimination in health care, with housing, and in the legal system.⁸⁶ They found that participating in a genetic test was not associated with increased levels of genetic discrimination, and that more people were discriminated against because of family history of HD than as a result of genetic testing.⁸⁷ In the employment context, people were not hired or fired, denied a promotion, covertly watched, or badly treated by coworkers (without repercussions to the coworkers) because they were at-risk for genetic conditions.⁸⁸ People were scared to change their job out of fear that they would not be able to get health insurance in their new position.⁸⁹

Notably, Erwin and colleagues found that people at risk for HD spend a lot of time worrying about discrimination.⁹⁰ They worry more about the possibility of discrimination than it actually happens. For instance, they found that 70% of participants worried about discrimination in insurance, whereas only 25.9% of participants actually reported having experienced discrimination by insurance. Forty-four percent of participants had worried about employment discrimination, but only 6.5% had experienced it.⁹¹ One study looked at genetic testing and

⁸⁰ Geller et al, *supra* note 21; Alper et al, *supra* note 17. Hemochromatosis is a disease where too much organ builds up in the body, which can eventually cause organ failure. Phenylketonuria is a metabolism error that can lead to issues including seizures, behavioural problems, mental disorders, etc. Mucopolysaccharidoses are a group of metabolic diseases that can result in a wide range of symptoms including skeletal irregularities, enlarged organs, hernias, etc. See Merriam-Webster, *Hemochromatosis, Phenylketonuria, Mucopolysaccharidoses* in Merriam-Webster Medical Dictionary, available online: < <https://www.merriam-webster.com/medical>>.

⁸¹ Geller et al, *supra* note 21; Alper et al, *supra* note 17.

⁸² Erwin et al, *supra* note 22 at 1087.

⁸³ Alper et al, *supra* note 17.

⁸⁴ Geller et al, *supra* note 21; Alper et al, *supra* note 17.

⁸⁵ Erwin et al, *supra* note 22; Yvonne Bombard et al, "Perceptions of genetic discrimination among people at risk for Huntington's disease: a cross sectional survey" (2009) 338 *BMJ* b2175.

⁸⁶ Erwin et al, *supra* note 22.

⁸⁷ Bombard et al, *supra* note 85.

⁸⁸ Geller et al, *supra* note 21; Erwin et al, *supra* note 22.

⁸⁹ Geller et al, *supra* note 22 at 77.

⁹⁰ Erwin et al, *supra* note 22.

⁹¹ *Ibid* at 1088-89.

discrimination among women who had the BRCA1/2 mutation.⁹² These women rated fear of life insurance discrimination as a moderately or very important factor in their decision to undergo genetic testing. For those who were nervous about it, it made them less likely to undergo genetic testing.⁹³ Fatima Syed reports on an anecdotal story shared by a doctor of a patient at the University of Montreal's Research Centre. The patient wanted to have her breasts and ovaries removed to prevent any chance of cancer but refused to be genetically tested for cancer because she thought it could harm her children in future.⁹⁴ Her doctor had seen insurance companies deny protection to patients based on their own genetic results, or the genetic results of their family members.

It is important to keep in mind when assessing this research that most confirmed cases of genetic discrimination have been on a small group of disorders – in particular HD, hemochromatosis, PKU, and MPS. There is a growing body of studies on people with the BRCA1/2 genes that confirm discrimination. The reason that there may not be more confirmation of genetic discrimination in other populations could be because, whereas the genetic basis for HD has been known for a while, researchers have only begun to develop knowledge about the genetic basis of many other diseases in the last decade. Many of these studies are based in the United States, so the findings about health care insurance, especially, are less applicable given that the Canadian provinces provide healthcare. People are also self-reporting what they perceived to be instances of discrimination, so it is possible that some of these examples were not in fact discrimination based on genetics. However, many of these studies are also very large (reports from hundreds of people) so even if there is less discrimination occurring than reported, it is still a large amount.

Case Law on Genetic Discrimination

Another indicator of the occurrence of genetic discrimination is the amount of case law on the issue. A United States news article, for instance, made its way across the Internet a few years ago that described a Connecticut woman (Pamela Fink) who alleged that her employer wrongfully fired her after learning that she carried the BRCA2 genetic mutation.⁹⁵ If a settlement was not negotiated, Fink planned to pursue the claim in court.⁹⁶

To find out whether genetic discrimination is appearing in the case law in Canada, I conducted an in-depth search for all court and tribunal cases in Canada through QuickLaw, CanLii and through the websites of individual tribunals (like the Canada Human Rights Tribunal website). I firstly looked at whether any cases had been brought under the GNDA, by using the search term “genetic non-discrimination act.” The only cases that cited the Act were the Quebec Reference, and a criminal case: *D'Amico c R*.⁹⁷ A sample of D'Amico's DNA was taken in the course of an investigation into the sexual assault and murder of a sex worker. Although the DNA evidence

⁹² Katrina Armstrong et al, “Life insurance and breast cancer risk assessment: adverse selection, genetic testing decisions, and discrimination” (2003) 120A:3 Am J Med Genet A 359. The BRCA mutations increase the chances of ovarian and breast cancer. See Merriam-Webster, *supra* note 80.

⁹³ Armstrong, *supra* note 92.

⁹⁴ Fatima Syed, “Should Insurers Have Access To Your Genetic Test Results?”, (1 November 2016), online: *The Walrus* <<https://thewalrus.ca/should-insurers-have-access-to-your-genetic-test-results/>>.

⁹⁵ MacKenna Roberts, “US woman accuses employer of genetic discrimination after breast cancer test”, (4 May 2010), online: *BioNews* <https://www.bionews.org.uk/page_92318>.

⁹⁶ *Ibid.*

⁹⁷ *D'Amico c R*, 2019 QCCA 77 [*D'Amico*].

showed that D'Amico was not a suspect for this crime, the DNA sample raised the police's suspicions that he was involved with a number of unresolved sexual assault cases. The police then followed D'Amico with the goal of retrieving "abandoned" DNA and succeeded.⁹⁸ The case looked at whether the state can trick their criminal suspects into giving up DNA, keep the samples and use them as needed. The court referenced the GNDA in the context of discussing the complex "scientific, moral, ethical and legal issues" surrounding the handling of another person's DNA.⁹⁹ This case highlights reasons why the protection of genetic data is important.

The second search phrase that I used was "genetic discrimination." Lilith Finkler, Roxanne Mykitiuk, Jennifer Nisker and Mark Pioro conducted a similar search of Canadian legal databases in 2010.¹⁰⁰ For this reason, I focused largely on cases after 2010. In their search for legal cases in 2010 their original search term was also genetic discrimination. It yielded them no results which prompted them to change the focus of their research. Of the approximately 220 cases that I found with these search terms, I focused on instances of people bringing discrimination claims and the discrimination being linked (although sometimes very loosely) to a genetic pre-disposition. Among the cases that came up with these search words were tort and worker's compensation cases. In these cases, genetics came up in the context of employers arguing that a plaintiff's work-related injuries were caused by pre-existing genetic conditions, rather than work conditions. People having their workers' compensation reduced because of a genetic characteristic could certainly be considered discrimination. However, I chose not to examine this here because the way that genetic disease is being looked at in the context of causation for workers' compensation and torts law is explored in-depth by Lilith Finkler and colleagues.¹⁰¹ I was left with five cases on employment, to which I add one pre-2010 case (*Broisband*) that was discovered by Finkler and colleagues through academic references.¹⁰² I found two cases on alleged discrimination by a school board,¹⁰³ and one on alleged discrimination by a hospital.¹⁰⁴ All of these cases, except one arbitration case,¹⁰⁵ had been decided prior the GNDA coming into force.

This small number of cases might indicate that people are not bringing their cases of genetic discrimination to court. It could also be an indicator that there is not a lot of genetic

⁹⁸ *Ibid.*

⁹⁹ *Ibid* at para 365.

¹⁰⁰ Lilith Finkler et al., "Understanding the use of 'Genetic Predisposition' in Canadian Legal Decisions" (2014) 34 Osgoode Legal Studies Research Paper Series.

¹⁰¹ *Ibid* at 32-53.

¹⁰² *Toronto District School Board v Ontario Secondary School Teachers' Federation, District 12*, 2011 CanLII 508 (ON LA) [*Toronto District School Board*]; *Dotchin v Simply Computing and another (No 2)*, 2013 BCHRT 189 [*Simply Computing*]; *Northern Interior Woodworkers' Assn obo Souter v Pacific Island Resources*, 2011 BCHRT 294 [*Northern Interior Woodworker's*]; *Farlow v Hospital for Sick Children*, 2009 HRTO 739 [*Farlow*]; *Quebec (Commission des droits de la personne et des droits de la jeunesse) v Montréal (City)*; *Quebec (Commission des droits de la personne et des droits de la jeunesse) v Boisbriand (City)*, 2000 SCC 27 [*Boisbriand*]; *Canada Bread Company v Bakery, Confectionery, Tobacco Workers, and Grain Millers International Union, Local 468*, 2011 CanLII 99612 (BC LA) [*Canada Bread Company*]; *Regional Municipality of Waterloo (Sunnyside Home) v Ontario Nurses' Association*, 2019 CanLII 433 (ON LA) [*Ontario Nurses' Association*].

¹⁰³ *Saskatchewan Human Rights Commission v Prince Albert Roman Catholic School Division No 6*, 2008 SKQB 227 [*Prince Albert Roman Catholic School*]; *MR v Halton District School Board*, 2012 HRTO 1290 [*Halton*].

¹⁰⁴ *Farlow v Hospital for Sick Children*, 2009 HRTO 739.

¹⁰⁵ *Ontario Nurse's Association*, *supra* note 101.

discrimination occurring in Canada. In terms of the GNDA, the fact that only *D'Amico* and the Quebec reference relied on the Act, might have to do with the fact that the Act has only been in force for two years now. Given how long it can take for a case to come to trial and for a judgment to be rendered, it could be that judgments have not had the time to be released. This is less applicable to arbitration cases which I explored as well. The lack of cases relying on the Act could also point to its possible redundancy – perhaps people are calling genetic discrimination by another name or using other tools to deal with instances of genetic discrimination. That is what I turn to next.

The GNDA and Changes to the CLC and CHRA are Somewhat Redundant

The second critique of the GNDA is whether the GNDA and the changes to the CHRA and CLC are redundant. In reviewing the relevant nine cases, four findings emerged that are useful for considering the question of whether the GNDA is redundant. Firstly, the cases reveal that complainants are successfully bringing claims of discrimination, that could be based on genetics, under the already protected ground of disability. Second, since disability and handicap are interpreted to include “perceived disabilities,” this strengthens the potential of bringing claims of genetic discrimination under the ground of disability. Thirdly, complainants emphasize the genetic basis of diseases and disabilities. As people begin to think more about disease and disability in terms of their underlying genetic causes, it might become more important that genetic discrimination be a protected ground. Lastly, one case indicated that concerns over the sharing of private genetic information might be warranted.

It is important to point out that none of these cases is federal. The GNDA itself is a criminal piece of legislation and so applies in all circumstances. As described in the context section of this paper, the CHRA applies to federally regulated activities and the CLC applies to employment issues among industries within the federal jurisdiction. Therefore, even if the amendments to the CHRA and CLC had been in place at the time that these cases were decided, these pieces of legislation would not have been applicable anyway. However, looking at these cases as examples of the ways that genetic discrimination might arise is still helpful for thinking about how useful these changes to the CLC and CHRA could be in the context of federal claims, particularly since the amendments to the CLC and CHRA (through sections 8 and 9 of the Act) were not among those sections of the Act that were contested for being *ultra vires*. Given that provincial legislatures, like Ontario, might make similar changes to their respective human rights and labour laws, it is also helpful to look at the tools that people are using in genetic discrimination claims to think about whether those types of changes would be useful.

Genetic Discrimination is Dealt with as Discrimination on the Basis of Disability

In all of the cases and tribunal decisions that referenced genetics and discrimination the plaintiffs had brought their claims as discrimination on the basis of disability. Some of these plaintiffs saw their disease or condition as just that, a disability, that also happened to have a genetic basis. The genetic component of the disease or condition was secondary. Since the perpetrators were not basing their discrimination on knowledge about the claimant’s genetics (which is how genetic discrimination is defined), but on their symptoms, this category was appropriate. In *Toronto District School Board v Ontario Secondary School Teachers’ Federation District 12*,¹⁰⁶ a case of

¹⁰⁶ *Toronto District School Board*, *supra* note 102.

arbitration in Ontario, Ms. P, a secondary school teacher, argued that the Toronto School Board had failed to adequately accommodate her. Ms. P had been diagnosed in 2001 with Multiple Chemical Sensitivity (MCS) which causes a person to experience symptoms when they encounter certain smells like perfumes. Ms. P and the school board had developed a plan to accommodate the diagnosis. The plan dealt with the products that would be used to clean the school, procedures that would be put in place to ensure that staff and students did not wear fragrances, etc.¹⁰⁷ The plan, however, ended up being more difficult to put in place than was expected and the school had not succeeded in accommodating Ms. P. In the evidence provided, Ms. P's expert, Dr. Bested, stressed that recent research had suggested that six genes influence people's susceptibility to MCS.¹⁰⁸ Thus, MCS could actually be based on genetic characteristics.

In a case heard by the British Columbia Human Rights Tribunal, *Northern Interior Woodworkers' Association v Pacific Island Resources*,¹⁰⁹ the Northern Interior Woodworkers' Association brought a claim on behalf of Mr. Souter – a mill worker. They alleged that Pacific Island Resources had discriminated against Mr. Souter on the basis of physical and mental disability, contrary to section 13 of the BC *Human Rights Code*.¹¹⁰ Section 13 protects individuals from discrimination based on protected characteristics in hiring, firing and terms of employment.¹¹¹ Mr. Souter had taken time off from work because he could not stand for long periods of time because he had osteoarthritis in one knee and was obese. He also suffered from depression. Eventually after not working for two years, Pacific Island Resources told Mr. Souter that it seemed like he would not be able to work anymore and so they were terminating his employment. Mr. Souter based his claim on disability. However, a medical doctor, Mr. Zetner, testified to the fact that there is a genetic predisposition to obesity. Again, if the employer had known Mr. Souter's genetic information, then this could have been genetic discrimination. Since the discrimination was based on his symptoms, it was brought on the grounds of disability.

Other plaintiffs knew they had special genetic characteristics that had or would lead to a condition or disease, and the alleged perpetrator knew this as well. For these plaintiffs, a “genetic characteristics” ground of discrimination, like that added to the CHRA, might have been more appropriate. These plaintiffs, however, were still able to bring their claim on the ground of disability. In another BC case, *Dotchin v Simply Computing and another*,¹¹² Timothy Dotchin brought a complaint under section 13 of the BC *Human Rights Code* against Simply Computing, his former place of employment. Dotchin argued that Simply discriminated against him when they terminated his employment. Mr. Dotchin had told the Simply executive who recruited him that he had a genetic disease that could cause him to experience depression and anxiety.¹¹³ He worked as a manager for the Simply store and eventually he began to experience depression which interfered with his work. He was moved into a new position as Accounts Manager, and then when he was unable to make his sales targets because of his deteriorating health, the CEO arranged for him to work as a sub-contractor, so that he could keep his own hours. Eventually he was terminated. The BC Human Rights Tribunal found that it would have been undue hardship

¹⁰⁷ *Ibid* at 4.

¹⁰⁸ *Ibid* at 64.

¹⁰⁹ *Northern Interior Woodworkers*, *supra* note 102.

¹¹⁰ *Human Rights Code Regulation*, BC Reg 373/96.

¹¹¹ *Ibid* at s 13.

¹¹² *Simply Computing*, *supra* note 102.

¹¹³ *Ibid* at para 4.

for Simply to continue to pay Dotchin for work he could not complete. This is a case where the plaintiff, Dotchin, knew that he had genetic characteristics that could lead to certain symptoms, and perceived the discrimination as being based on those characteristics. However, he was able to bring the claim under the existing recognized ground of disability.

In another case, *Saskatchewan Human Rights Commission v Prince Albert Roman Catholic School*, the Saskatchewan Human Rights Commission brought an application on behalf of Travis Mahussier who has Williams Syndrome – a genetic disorder that affects cognitive development.¹¹⁴ Travis had been suspended from school for using profane language. The school knew that he had Williams Syndrome. His parents argued that the suspension was discriminatory as it was for behavior related to his syndrome.¹¹⁵ Although the court did not find that there was discrimination, this was another example of a complainant bringing a claim for discrimination on the ground of disability. The discrimination, however, might have been based on genetics.¹¹⁶ Barbara Farlow, is another example of a parent bringing a claim that their child had been discriminated against. Barbara Farlow brought a claim to the Ontario Human Rights Tribunal that her daughter, who had been born with the genetic condition Trisomy 13,¹¹⁷ had been denied life-saving treatments by the hospital because of the genetic condition, and that this had led to her daughter's death.¹¹⁸ Farlow alleged discrimination in employment and contract on the basis of disability.

Thus, these cases illustrate that plaintiffs who know that their disability is based on genetic characteristics and who perceive the discrimination as being based on genetic characteristics first and foremost, are still able to ground the discrimination claim in disability. This perhaps suggests that “genetic characteristics” did not need to be added to the CHRA.

Genetic Discrimination Could Be Argued as “Perceived Discrimination”

This argument that a claim on the basis of genetic discrimination can be brought under the ground of disability is further backed up by the fact that a very broad interpretation is given to disability and handicap. This broad interpretation includes perceived disability. Finkler and colleagues point out the case of *Boisbriand 2000*.¹¹⁹ This is a Supreme Court of Canada case that looked at three different appeals together. Two of these involved employers (City of Montréal and Communauté urbaine de Montréal) refusing to hire people (Mercier as a gardener-horticulturalist and Jean-Marc Hamon as a police officer) because both had anomalies on their spinal columns.¹²⁰ In the third case, Palmerino Troilo was dismissed from his position as a police officer for the municipality of Boisbriand because he had Crohn's disease.¹²¹ All three people filed complaints with the Commission des droits de la personne et des droits de la jeunesse alleging discrimination on the basis of their handicaps. The case does not discuss genetic

¹¹⁴ *Prince Albert Roman Catholic School*, *supra* note 102.

¹¹⁵ *Ibid* at para 7.

¹¹⁶ *The Saskatchewan Human Rights Code*, SS 1979, c S-24.1.

¹¹⁷ Trisomy 13 is a chromosome disorder that can cause severe intellectual disability, and many physical abnormalities. See Merriam-Webster *supra* note 80.

¹¹⁸ *Farlow*, *supra* note 104.

¹¹⁹ *Boisbriand*, *supra* note 102.

¹²⁰ *Québec (Commission des droits de la personne) et Hamon v Montréal (Communauté urbaine) (1996)*, 26 CHRR D/466; *Québec (Commission des droits de la personne) et Mercier v Montréal (Ville) (1995)*, 25 CHRR D/407.

¹²¹ *Québec (Commission des droits de la personne) et Troilo v Boisbriand (Ville) (1995)*, 25 CHRR D/412.

discrimination. However, the case is relevant to a discussion on genetic discrimination because here, two of the complainants (Mercier and Hamon) had no symptoms and Troilo had been declared capable of conducting the work.¹²² The City of Montréal did not want to hire Mercier because they were worried about how it might affect her work in the future. Communauté urbaine de Montréal was worried that Hamon might develop incapacitating back pain in the future. With *Troilo*, even though the medical reports said that Troilo would be able to perform the police work, the municipality of Broisband was concerned about future absences from work and so Troilo was dismissed. These three cases had to do with assumptions being made about these people's medical situations and possibilities about what this could mean in future. In the cases that I looked at in the last section, the complainants had already begun to experience symptoms (except Dotchin who had not at the time he was hired). Here, however, each of these people were currently asymptomatic. The discovery of the spinal anomalies, in particular, is much like finding out someone's genetic test results and being concerned about what this will mean in future. Discrimination on the basis of knowing someone's genetic information, and on the possible implications of those results, is the type of scenario that was envisioned when the GNDAs were developed.

The case was dealt with under section 10 of the Quebec *Charter of Human Rights and Freedoms*¹²³ and section 15 of the Canadian *Charter of Human Rights and Freedoms*.¹²⁴ Judge Brossard of the Human Rights Tribunal had presided over the *Mercier* and *Troilo* cases and had found that both had been denied employment because of a subjective perception of their handicaps. Although a subjective handicap is included in the human rights legislation in other provinces like Ontario and Nova Scotia, this concept is not included in Quebec legislation.¹²⁵ *Mercier* and *Troilo* had no remedy under section 10 of the Quebec *Charter* without functional limitations.¹²⁶ Madame Judge Rivet had presided over the *Hamon* case and had found that the assessment of a handicap could be subjective and so Hamon had been discriminated against on the basis of a handicap. Justice L'Heureux-Dubé on behalf of the Supreme Court of Canada said that given the quasi-constitutional nature of human rights legislation "handicap" needed to be interpreted in light of its context and objectives. When you apply a liberal and purposive method of interpretation, along with a contextual approach, and consider the way that "handicap" has been interpreted elsewhere in Canada, this all supports a broad definition of the word handicap. It recognizes the subjective component of discrimination on this ground and does not require functional limitations. Further, the Quebec *Charter* also prohibits "discrimination based on the actual or perceived possibility that an individual may develop a handicap in the future."¹²⁷ This case has since been cited to emphasize that in human rights legislation disability includes "perceived disability."¹²⁸ So, as Finkler and colleagues point out, this might mean that if someone refused to hire or insure someone based on genetic predisposition (even if there were

¹²² Finkler et al., *supra* note 100 at 10.

¹²³ *Charter of human rights and freedoms*, CQLR c C-12. The relevant sections were ss 10, 16, 20, 20.1, 49, 57, 71, 74, 78, 80, 84.

¹²⁴ *Canadian Charter of Rights and Freedoms*, Part I of the Constitution Act, 1982, being Schedule B to the Canada Act 1982 (UK), 1982, c 11.

¹²⁵ *Boisbriand*, *supra* note 102 at para 12.

¹²⁶ *Ibid* at para 13.

¹²⁷ *Ibid* at para 81.

¹²⁸ E.g. *Toronto District School Board*, *supra* note 102.

no symptoms), the person would be able to argue discrimination on the basis of perceived disability.¹²⁹

However, although this case suggests that someone who is discriminated against on the basis of genetic characteristics might be able to bring their claim on the ground of “perceived disability,” there has been no case law to verify this.

Greater Emphasis is Being Placed on the Genetic Component of Disease and Disability

A reason that might make the GNDA, and the inclusion of “genetic characteristics” in the CHRA and CLC, all the more important has to do with the emphasis that is being placed on the genetic components of disease. As I noted, our understanding of disease is currently being re-conceptualized as we begin to learn more about the genetic basis for diseases and conditions.¹³⁰ As a result, people are beginning to highlight the genetic characteristics that are connected with their various diseases and conditions. For example, the expert speaking on behalf of Ms. P in *Toronto District School Board* who points out the genetic component to MCS, Mr. Souter’s expert in *Northern Interior Woodworkers’ Association* who points out the genetic basis of obesity, and Mr. Dotchin in *Simply Computing* who explicitly frames his depression and anxiety as a result of his genetic characteristics, are all framing disease and conditions on the basis of genetics.

In *Canada Bread Company v Bakery*,¹³¹ an arbitration case that took place in British Columbia, the grievor¹³² had a full-time sanitation position at one of the Bread Company’s locations. The grievor was dismissed after putting a note on the vehicle of a co-worker that contained a racial slur and threat of physical violence against the co-worker. There had been other incidents in the past. The Union, representing the grievor, argued that the grievor had been discriminated against on the basis of disability. They noted that the grievor suffered from a mental illness that had a genetic component, and that the employer had a duty to inquire about this. Here, the genetic component to the mental illness became a way to support the fact that the grievor had an illness and was being discriminated against on the basis of disability.

In *Ontario Nurse’s Association*¹³³ an arbitration case in Ontario, the Ontario Nurse’s Association Union represented DS.¹³⁴ DS had been terminated by her employer for misappropriating narcotics for her own use. She now wanted to return to work for the employer but the employer would not re-hire her.¹³⁵ The Union argued that this was discrimination on the basis of disability under section 5 of the *Ontario Human Rights Code* which says that “every person has a right to equal treatment with respect to employment without discrimination...”¹³⁶ The Union argued that it was discrimination because DS had an addiction. In coming to the decision that discrimination had been established, the arbitrator, Larry Steinberg, cited the fact that addiction has a genetic

¹²⁹ Finkler et al, *supra* note 100 at 10.

¹³⁰ Alper et al., *supra* note 17.

¹³¹ *Canada Bread Company*, *supra* note 102.

¹³² He is not identified by name because of personal privacy reasons.

¹³³ *Ontario Nurses’ Association*, *supra* note 102.

¹³⁴ Again, DS’s full name was not given for personal privacy reasons.

¹³⁵ *Ontario Nurses’ Association*, *supra* note 102 at para 4.

¹³⁶ *Human Rights Code*, RSO 1990, c H.19 [*ON Human Rights Code*]. The case also referenced ss 11 and 17. See *Ontario Nurses’ Association*, *supra* note 102 at para 99.

component. Steinberg used this in order to support his finding that addiction is not just a bad habit as DS's employer suggested, and that DS was entitled to human rights protection.¹³⁷

In another Ontario case, M.R., by his next friend C.R., brought an application to the Human Rights Tribunal of Ontario alleging discrimination in the provision of goods and services on the basis of disability.¹³⁸ His school had identified him as having a developmental disability and had put him in a special education class. Because of this, he argued that he was denied the appropriate placement at his local high school. M.R. argued that there needs to be an MRI diagnosis or genetic testing to determine that a student actually has a learning disability.¹³⁹

People highlighting the genetic component of their conditions, and even using the fact that a condition has a genetic basis to try to legitimize their claim that they experienced discrimination, illustrates a shift whereby people are beginning to place more emphasis on genetic characteristics. As we begin to learn more about the genetic components of diseases and conditions, what people might have once perceived of as discrimination based on disability might start to be considered discrimination based on genetic characteristics. Additionally, people whose conditions appear to flow from individual choice (like DS in *Ontario Nurse's Association*) have often, problematically, been treated as less deserving of human rights protection, even when the condition is protected under human rights law.¹⁴⁰ This is often the case with addiction, even though addiction is a recognized disability.¹⁴¹ These individuals might receive better protection by virtue of being able to illustrate the genetic component to their condition. On the flip side, where no genetic component to a condition is uncovered, it could exacerbate the belief that these are individual choices and impair the court from being able to objectively assess the discrimination claim.

In any case, the more that we know about the role of genetics in certain diseases and conditions, the more possibility there will be that people discriminate against others based solely on this information, if they have access it. For instance, people may be more likely to discriminate against someone on the basis of being able to see from their genetic information that they have a greater propensity for substance addiction. This supports the importance of the GNDAs and its amendments to the CHRA and CLC.

There is a Risk of Inappropriate Sharing of Private Genetic Information

Finally, a concern of the GNDAs was over inappropriate sharing of people's genetic test results. In section 5 the GNDAs sets out that it is prohibited for anyone providing goods or services to an individual, entering into or continuing a contract with an individual, or offering or continuing specific terms in a contract with an individual, to collect, use or disclose the results of an individual's genetic test without that individual's written consent.¹⁴² In the employment context,

¹³⁷ ON *Human Rights Code*, *supra* note 136.

¹³⁸ *Ibid* at s 34; *Halton*, *supra* note 103.

¹³⁹ *Halton*, *supra* note 103 at para 20.

¹⁴⁰ See e.g. *Stewart v. Elk Valley Coal Corp* 2017 SCC 30 at para 58.

¹⁴¹ *Ibid*. In his dissent, Justice Gascon observes that even though addiction is a recognized disability, stigmas around drug dependence impair the court's ability to assess the merits of a discrimination claim.

¹⁴² *GNDAs*, *supra* note 1 at s 5.

the new section 247.98(5) and (6) of the CLC say that no other person is allowed to disclose to an employer that an employee has taken a genetic test, or disclose the results of that test.¹⁴³

In *Simply Computing*, Mr Dotchin brought his complaint against *Simply Computing* and against his supervisor Kyle Bennett. Mr. Dotchin had confided in Mr. Bennett that he had a genetic disease and Mr. Bennett agreed to keep this information confidential.¹⁴⁴ However, Mr. Bennett reported this information about Mr. Dotchin's genetic disease to the CEO of *Simply Computing*. Kyle Bennett sharing this confidential information is not dealt with directly by the BC Human Rights Tribunal. In this case, the CEO, having obtained this information, tried to better accommodate Mr. Dotchin in the workplace, and Justice Catherine McCreary of the Human Rights Tribunal found that there was no discrimination. However, this situation could have gone in the opposite direction. Section 5 of the GNDA makes it clear that collecting a person's genetic information is prohibited. If this had been a federally regulated business, the new amendments to the CLC would have given Mr. Dotchin a specific route under which he could have filed a complaint.

A Final Assessment: Even if not the GNDA, Laws with Provisions Dedicated to Preventing Genetic Discrimination Are Important

What examination of these cases illustrates is that part of the reason that it might have been so difficult to find cases on genetic discrimination in Canada is that there is a lot of overlap between discrimination on the grounds of disability and genetic discrimination. People are bringing claims of discrimination on the basis of disability, where there might also have been genetic discrimination. However, if they, or the person who discriminated against them did not know about the genetic basis for the condition, and are discriminating based on the condition, then this makes disability an appropriate category under which to bring these claims. The GNDA seems to have been developed with the intention of prohibiting and preventing genetic discrimination where the discrimination is based on knowing a person's genetic information, even when the person has no symptoms. The fact that disability is interpreted to include "perceived" disability, means that disability remains an appropriate ground under which to bring these claims even where there are no symptoms and the discrimination is made only based on knowledge of genetic information.

If you apply this train of thought to the federal context, this may imply that the GNDA and amendments to the CLC and CHRA are redundant. However, the case law also reveals that as we find out more about genetics, people might be re-conceptualizing diseases and conditions on the basis of their genetics. As more is discovered about the connection between diseases and genetics it seems that genetic characteristics might become a more fitting category under which to bring a claim of discrimination. For example, it might once have made sense to bring a claim of discrimination on the basis of obesity under the category of disability. As we find out more about the genetic characteristics of obesity, someone might feel that in actuality they are being discriminated against on the basis of genetic characteristics that contribute to making them pre-disposed to obesity. This assumes that the person who is discriminating is aware that the individual they are discriminating against has these genetic characteristics. It also oversimplifies

¹⁴³ CLC, *supra* note 5 at s 247.98(5) and (6).

¹⁴⁴ *Simply Computing*, *supra* note 102 at para 10.

the genetic underpinnings to diseases and conditions. It is often multiple genes and factors that contribute to a disease or condition. Although there are some exceptions, like HD, a disease or condition cannot usually be pinned on one genetic characteristic.¹⁴⁵ This might be why there is more evidence of genetic discrimination for those at risk of HD.¹⁴⁶ However, this does not mean that this type of thinking about genetics and discrimination will not occur.

Another example that the case law illustrated was that of Dotchin's co-worker sharing Dotchin's personal genetic information. Having laws that ensure the privacy of people's genetic information is all the more important given the fact that people with disabilities have historically had their privacy invaded and been subjected to additional surveillance.¹⁴⁷ Privacy laws in Canada, such as the *Personal Information Protection and Electronic Documents Act* (PIPEDA)¹⁴⁸ prevent the collection, use and disclosure of certain types of personal information, including health information, by businesses in the private sector and federally-regulated business (like banks, airlines). The *Privacy Act*¹⁴⁹ deals with the personal information of federal employees. A number of provinces have also passed legislation considered substantially similar to PIPEDA.¹⁵⁰ Some provinces have passed health-related privacy laws that are considered substantially similar to PIPEDA when it comes to health information.¹⁵¹ However, if this had happened in a federal employment context, the changes to the CLC give Dotchin an explicit basis under which to file a complaint.

There is also a symbolic nature to the GNDA and the amendments to the CLC and CHRA. The fact that genetic discrimination is now explicitly set out in the CLC and CHRA, and the GNDA is a piece of criminal legislation that explicitly sets out what is prohibited sends a strong message that this kind of behavior is morally reprehensible. The research on genetic discrimination illustrates that a large number of people fear genetic discrimination.¹⁵² Bombard and colleagues found that before the GNDA came into force, Canadians were declining genetic testing even when the results would guide their best-practice treatment because their genetic information was not protected by legislation.¹⁵³ Thus, even if there is little to no genetic discrimination going on in Canada, people are still worried about it. If it helps suppress people's concern, then this makes the Act important. Additionally, a problem with different forms of discrimination is that it is often dealt with after the discrimination has occurred, and there are not enough efforts to prevent it happening. All of these symbolic factors of the GNDA, and the amendments to the CLC and

¹⁴⁵ Syed, *supra* note 94; Joly, *supra* note 2.

¹⁴⁶ Joly & Knoppers, *supra* note 47.

¹⁴⁷ Saltes, *supra* note 26 at 70.

¹⁴⁸ *Personal Information Protection and Electronic Documents Act*, SC 2000, c 5 [PIPEDA].

¹⁴⁹ *Privacy Act*, RSC 1985 c P-21.

¹⁵⁰ Alberta's *Personal Information Protection Act*, SA 2003 c P-6.5; BC's *Personal Information Protection Act Regulations*, BC Reg 473/2003; Québec's *Act respecting the protection of personal information in the private sector*, chapter P-39.1. The Alberta Human Rights Commission, for instance, says that an employer can only request information that is relevant to the employee's job duties. See, "Obtaining and responding to medical information in the workplace", (December 2013), online: *Alberta Human Rights Commission* <https://www.albertahumanrights.ab.ca/publications/bulletins_sheets_booklets/bulletins/Pages/obtaining_med_info_in_workplace.aspx>.

¹⁵¹ E.g. Ontario's *Personal Health Information Protection Act*, 2004 SO, c3, Sched A; New Brunswick's *Personal Health Information Privacy and Access Act*, SNB 2009, c P-705.

¹⁵² Erwin et al, *supra* note 22; Syed, *supra* note 94; Armstrong et al, *supra* note 92.

¹⁵³ Bombard, Cohn & Scherer, *supra* note 16.

CHRA, might act to prevent genetic discrimination, at least on the federal level. The GNDA, by virtue of being criminal legislation, with large penalties associated with breaching its provision, might act as a deterrent.

Conclusion and Recommendations

Whether or not the GNDA is declared *ultra vires* by the Supreme Court of Canada, an assessment of the GNDA is useful in its revelation that laws with provisions dedicated to preventing genetic discrimination are important. There is evidence with HD, PKU, MDS, hemochromatosis, and the BRCA gene to suggest that genetic discrimination is a real concern particularly with regard to employment and insurance. An assessment of the GNDA provides insight into what *intra vires* and desirable legislation to deter genetic discrimination might look like. It also provides an indication of what steps the provinces and territories might want to take to prevent genetic discrimination.

In terms of federal legislation, the most important step would be to ensure that the changes to the CHRA and CLC remain in place. Since sections 8 and 9 of the GNDA – the sections of the Act that amend the CHRA and CLC - are not among the sections being challenged for their constitutional validity, this should not be a problem.¹⁵⁴

The inclusion of “genetics characteristics” in the purpose section of the CHRA and as a listed prohibited ground is important. Advances in genetic testing technologies have been rapid, and law often does not keep pace with these scientific advancements. As we learn more about genetics, there may be a shift whereby society begins to think of conditions more often in terms of their genetic components. These types of changes in the ways that people think about disability and genetics, paired with the possibility that peoples’ genetic information might continue to become more easily available could mean that people think of these forms of discrimination as being based on genetic characteristics, rather than disability. Inclusion of genetics in the CHRA is also important because it helps to serve a symbolic nature by specifically highlighting the unacceptability of discrimination on the basis of a person’s genetic information.

Additionally, the changes to the CLC help protect an employee’s privacy when it comes to their genetic information. It protects them from having to undergo a test or disclose the results of a test they have taken.¹⁵⁵ It also prevents any other person from disclosing to an employer than an employee has taken a genetic test, or the results of that test.¹⁵⁶ The CLC also gives individuals a route by which they can make a complaint if they are dismissed, suspended, laid off, or demoted because they refused to undergo a genetic test, disclose the results of a genetic test, or because of the results of their genetic test.¹⁵⁷

Since the CHRA applies to federally regulated activities, and the CLC applies to employment issues among industries within federal jurisdiction, provincial and territorial governments might consider making similar changes to their human rights and labour laws.

¹⁵⁴ *Quebec Reference* supra note 3 at para 1.

¹⁵⁵ *CLC*, supra note 5 at s 247.98(2) and (3).

¹⁵⁶ *Ibid* at s 247.98(5) and (6).

¹⁵⁷ *CLC*, supra note 5 at s 247.99(1).

In sum, even if the GNDA is declared *ultra vires* so soon after coming into force, it has highlighted the need for law to get ahead of fast-paced scientific research and medical developments in the realm of genetic testing, and the quickly growing accessibility of genetic testing and genetic information. It serves as a lesson on how to make it known that genetic discrimination is intolerable, and on how to provide those who experience this form of discrimination with different remedies.