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Tantamount to Fraud?: Exploring Non-Disclosure of Genetic Information in Life Insurance Applications as Grounds for Policy Rescission

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TANTAMOUNT TO FRAUD?: EXPLORING NON-DISCLOSURE OF GENETIC INFORMATION IN LIFE INSURANCE APPLICATIONS AS GROUNDS FOR POLICY RESCISSION

Anya E.R. Prince†

ABSTRACT

Many genetic counselors recommend that individuals secure desired insurance policies, such as life insurance, prior to undergoing predictive genetic testing. It has been argued, however, that this practice is “tantamount to fraud” and that failure to disclose genetic test results, or conspiring to secure a policy before testing, opens an individual up to legal recourse. This debate traps affected individuals in a Catch-22. If they apply for life insurance and disclose a genetic test result, they may be denied. If they apply without disclosing the information, they may have committed fraud. The consequences of life insurance fraud are significant: If fraud is found on an application, a life insurer can rescind the policy, in some cases even after the individual has passed away. Such a rescission could leave family members or beneficiaries without the benefits of the life insurance policy payment after the individual’s death and place them in economic difficulty.

Although it is clear that lying in response to a direct question about genetic testing would be tantamount to fraud, few, if any, life insurance applications currently include broad questions about genetic testing. This paper investigates whether non-disclosure of unasked for genetic information constitutes fraud and explores varying types of insurance questions that could conceivably be interpreted as seeking genetic information. Life insurance applicants generally have no duty to disclose unasked for information, including genetic information, on an application. However, given the complexities of genetic information, individuals may be exposed to fraud and rescission of

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their life insurance policy despite honest attempts to truthfully and completely answer all application questions.

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INTRODUCTION: WHAT SHOULD BE DISCLOSED?

Three siblings—Timothy, Alfred, and Susan—recently learned that their father, who has colon cancer, has tested positive for a genetic variant associated with Lynch Syndrome. This links his cancer to a genetic, and possibly hereditary, cause. The father was adopted, so the siblings had not previously known of any family history of colon, endometrial, or other Lynch-associated cancers. All three siblings are in their thirties with families of their own, so they have begun to talk about the implications of their father's diagnosis on their own lives. The eldest son, Timothy, has already visited a genetic counselor and testing showed he inherited the mutation from his father and has a significant risk of developing colon cancer. Susan is unsure whether she ever wants to get tested for the familial Lynch Syndrome mutation, but Alfred is interested and has called a genetic counselor to set up his own appointment. Because of the potential for genetic discrimination, the genetic counselor suggested that Alfred secure any desired life and other insurances prior to undergoing testing. All three siblings, who are all currently healthy, are now applying for life insurance. Each one disclosed their father's cancer diagnosis in the family medical history section and have carefully read through and completed all of the other questions on the application. If Alfred, Timothy, and Susan do not include their father's genetic test information on their applications, have they committed fraud or misrepresentation?

This case example illustrates a potential situation that may become increasingly common for many Americans. Currently, though, the law provides little clear guidance on how these siblings should proceed. This article explores whether non-disclosure of a genetic test result on a life insurance application constitutes fraud and what the legal rules in this area mean for individuals like Alfred, Timothy, and Susan.

A. Introduction

The underlying premise of life insurance is that the timing of the insured event, the applicant's death, is unknown. In actuality, however, an applicant's current health status, lifestyle, and genetic information can both provide information about risk of an early death and be used by life insurers to make coverage decisions. Life insurers' use of genetic information is particularly controversial. Some individuals feel that it is unfair to deny coverage based on immutable genetic information that they were born with and cannot change. In contrast, life insurance companies believe they cannot accurately classify risks and determine premium levels without genetic information as an essential tool. Due to the potential for adverse use of genetic information, many genetic counselors and advocacy groups suggest that, prior to undergoing genetic testing, patients obtain any

desired insurance.¹ However, others argue that this practice is gaming the life insurance industry and that failing to disclose information about testing is deceitful or fraudulent. Application fraud and misrepresentation provide grounds for insurers to rescind the policy, in some situations even after the insured's death. Although lying in response to a direct question about genetic testing would constitute fraud on an application, additional scenarios quickly obscure this bright line determination. Lack of clarity can lead to the problematic situation where well-intentioned applicants' policies may be rescinded despite truthful application responses.

Currently, many life insurance applications do not directly ask about genetic testing.² If the life insurance application does not explicitly ask, is it fraud or misrepresentation not to disclose such information? If the individual has not yet undergone testing, but is considering it, does she have a duty to disclose this? From the life insurance perspective, what is the duty of the company to ask about information that it will take into consideration in underwriting? Should companies be able to have applications that are silent regarding genetics, but have the practice to rescind policies for fraud if a genetic predisposition comes to light in the future?

This article explores when non-disclosure of genetic information may constitute fraud or misrepresentation allowing for life insurer rescission of the policy. It does not delve into analysis of fraud in other types of insurance, such as health, long-term care, and disability insurance. Health insurers are not allowed to underwrite on the basis of genetic or medical information, under both the Genetic Information Nondiscrimination Act (GINA) and the Patient Protection and Affordable Care Act (ACA), therefore concerns of fraud for nondisclosure are not an issue. Fraud and genetic information, however, remain a possible issue in insurances such as long-term care and disability insurance. Many of the discussions in this paper are relevant to these insurance realms. However, this paper focuses on life insurance because post-claim underwriting and rescission in life insurance impacts beneficiaries, not the individual insured—thus placing a unique burden on a third party uninvolved in the original contract. Additionally, since this rescission occurs after death, the insured individual has no opportunity to try to correct the situation

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1. Barbara Bowles Biesecker, *Privacy in Genetic Counseling*, in *GENETIC SECRETS: PROTECTING PRIVACY AND CONFIDENTIALITY IN THE GENETIC ERA* 122, n. 37, (Mark A. Rothstein ed. 1997); Nicole L. Pfeffer et al., *An Investigation of Genetic Counselors' Discussions of Genetic Discrimination with Cancer Risk Patients*, 12 *J. GENETIC COUNSELING* 419, 427 (2003).
 2. Robert C. Green et al., *GINA, Genetic Discrimination, and Genomic Medicine*, 372 *NEW ENG. J. MED.* 397, 398 (2015).

by securing different insurance after the mistake is discovered.

In 2008, Congress passed the GINA, the federal law that prohibits employers and health insurers from collecting and using genetic information in business decisions. Future legislation may limit companies' abilities to use genetic information in life insurance decisions, as GINA does for health insurance. Until then, both insurance companies and applicants should practice transparency in order to ensure a fair and functioning system.

Currently, applicants like Alfred, Timothy, and Susan risk a rescission of their life insurance policy if they fail to disclose genetic information — even if they are not directly asked for such information and even if they had no intent to hide genetic information from the insurer. This paper discusses these scenarios through eight substantive sections. Section II begins with a brief introduction into the basics of both genetic testing and life insurance. Sections III and IV provide an overview of some of the theoretical underpinnings of life insurance through a discussion of whether life insurance should be seen as a social good or an economic commodity, and through the introduction of two key principles: the solidarity principle and actuarial fairness. Next, in Section V, the paper turns to explore when and how life insurers may gain access to an applicant's genetic information. Although life insurers are generally not directly asking for genetic information, there are a number of different ways that a company could receive such information in the underwriting process. Section VI presents the legal standards for when a life insurer can rescind a policy. In some situations, if an insurer discovers fraud or a material misrepresentation it can rescind a policy, even after the death of the individual, under a system of post-claims underwriting. Sections VII and VIII explore two elements of fraud and misrepresentation: materiality and intent. Through examples, this section begins to show the complications of applying these elements to the context of genetic information and insurance applications. Finally, Section IX presents types of questions that are commonly asked on life insurance applications to illustrate the ambiguities of how to answer broad questions in light of knowledge about one's genetic risk. The paper concludes that individuals with genetic predispositions may be exposed to contract rescission based on fraud or material misrepresentation even when they make sincere attempts to truthfully answer application questions. To avoid this unfair scenario, life insurers should explicitly ask for genetic information on applications or be barred from using the non-disclosure of genetic information as grounds for policy rescissions.

II. GENETIC TESTING AND LIFE INSURANCE

This paper explores the application of law at the intersection of life insurance and genetic technologies. As such, it is essential to have

a basic understanding of genetic testing and the type of information that one can learn from such testing, and of the life insurance industry and how it uses risk information in its business model. This section will present a brief primer on genetic testing and life insurance.

A. Genetic Testing Primer

Since the completion of the Human Genome Project in 2003, genetic testing in the U.S. has greatly expanded. Researchers and clinicians are now beginning to understand how certain genes are associated with certain diseases. It is common for individuals to have different genetic variants, or alterations, in their genes; however, some variants, often called mutations, are associated with genetic conditions or with certain diseases. These mutations can be detected through genetic testing. There are now genetic tests available for over 5,000 genetic conditions and over 3,600 genes.³

Genetic testing can provide information about a wide variety of conditions, from innocuous traits, such as the shape of one's ear lobe, to serious diseases such as cancer or Huntington's Disease. Additionally, genetic testing can be done for many reasons. A doctor may want to perform a genetic test in order to help diagnose symptoms, to help a patient make an informed reproductive decision, or to determine whether an individual has inherited a genetic predisposition to a condition. In this paper, the latter type of testing—predictive genetic testing—is most relevant. For some rare conditions, such as Huntington's Disease, predictive genetic testing indicates that an individual will develop the disease. However, most predictive genetic tests indicate that an individual is at increased risk of developing the condition. Additionally, in the research and medical community, genetic variants are often categorized by whether or not they are medically actionable.⁴ Medical actionability refers to whether there are steps available for one to take to prevent or mitigate the condition if a predisposition is known.

While this paper will primarily discuss genetic testing, genomic sequencing also provides individuals with information about risk and variants. Genomic screening examines a person's entire genome, which is comprised of approximately 20,000 genes, whereas genetic testing is

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3. *Frequently Asked Questions (FAQ) for the NIH Genetic Testing Registry (GTR)*, NAT'L CTR. FOR BIOTECHNOLOGY INFO., <http://www.ncbi.nlm.nih.gov/gtr/> (last visited January 20, 2015).
 4. Jonathan S. Berg et al., *Processes and Preliminary Outputs for Identification of Actionable Genes as Incidental Findings in Genomic Sequence Data in the Clinical Sequencing Exploratory Research Consortium*, 15 GENETICS IN MED. 860, 865 (2013).

used to examine a targeted section of the genome.⁵ Currently, individuals generally undergo targeted genetic testing based on symptoms or a family history; however, due to decreasing costs of sequencing, genomic testing is increasingly being used in the clinic to assist in diagnosis.

Genetic and genomic testing is increasingly being used in the clinical setting or ordered after an individual meets with genetic counselors about familial risk. Additionally, individuals may have undergone testing in a research study or, in the past, undertaken direct-to-consumer genetic testing.⁶ Overall, there are many reasons and ways that an individual may have knowledge of genetic information relevant to a life insurance company.

B. Life Insurance Primer

The first life insurance company in the United States began in 1759 through the Presbyterian Synod of Philadelphia.⁷ Since that time, life insurance companies have grown to over a \$120 billion dollar industry.⁸ Life insurance can be purchased either as an individual or a group policy, such as through an employer or trade association. In general, there are two main types of life insurance policies: term insurance and whole-life insurance. Term insurance is a policy where an individual is insured during a set time period that expires, such as 10 years.⁹ This is generally the cheapest form of life insurance and premiums often remain level across the term, although will likely increase if the term is renewed for another period.¹⁰ Whole life insurance, in contrast, is a policy that lasts until it is terminated by the insured or until the death of the insured.¹¹ The premiums are generally much more expensive than term life insurance; however, these premiums stay constant throughout the entirety of the policy. Additionally, this type of insurance accrues a cash value throughout

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5. PRESIDENTIAL COMMISSION FOR THE STUDY OF BIOETHICAL ISSUES, *Privacy and Progress in Whole Genome Sequencing* (2012), Appendix II.
 6. *See infra* Section IX.A.2.
 7. J FRANCOIS OUTREVILLE, *THEORY AND PRACTICE OF INSURANCE* 24 (1998).
 8. *See* FEDERAL INSURANCE OFFICE, U.S. DEP'T OF THE TREASURY, ANNUAL REPORT ON THE INSURANCE INDUSTRY (2013), <http://www.treasury.gov/initiatives/fio/reports-and-notices/Documents/FIO%20Annual%20Report%202013.pdf>.
 9. Steven Kass, *Life Insurance Fundamentals*, in UNDERSTANDING INSURANCE LAW 2009, 233, at 236 (2009).
 10. *Id.*
 11. *See id.* at 239.

the life of the policy that can be borrowed against in later years.¹²

In both term and whole life insurance, applications go through a process called underwriting. Underwriting is the system that takes knowledge about the insured object and assesses risk levels: whether the risk of a house to require repairs; of an individual to require medical care; or, in the case of life insurance, of an individual to pass away at a younger age than average. Thus, life insurance underwriters gather information about an applicant's risk of death and place this individual into a risk classification.¹³ The higher the risk category, the higher the individual's premiums are likely to be. For example, since smoking increases risk of death, individuals who smoke are placed in a non-standard risk category and assigned higher premium rates than non-smokers. Once a premium has been set, it stays the same for the life of the policy, whether the set time period for term life insurance or for the entire policy for whole life insurance.¹⁴ Thus, correctly identifying risk during the underwriting process is an essential component of the life insurance business.

III. LIFE INSURANCE: A SOCIAL GOOD VERSUS AN ECONOMIC COMMODITY

Life insurance has always featured prominently in the societal debate over the use of individuals' genetic information to make business decisions. While the arguments about life insurance are similar to those in the realms of health insurance and employment, the life insurance context is distinguishable. One distinctive factor underlying the debate is whether one views life insurance primarily as a social right or an economic commodity.¹⁵

A social good is one where there is a moral obligation to distribute the good equitably across society.¹⁶ The U.S. has many examples of goods that have been recognized as essential to society, such as the right to a free public education. The ACA recognized the importance of health insurance as a social good and greatly expanded

12. *See id.*

13. Robert K. Gleeson, *Medical Underwriting*, in *GENETICS AND LIFE INSURANCE: MEDICAL UNDERWRITING AND SOCIAL POLICY*, 73, 87-88 (Mark A. Rothstein ed. 2004).

14. *Id.* at 83.

15. Mark A. Rothstein & Carlton A. Hornung, *Public Attitudes*, in *GENETICS AND LIFE INSURANCE: MEDICAL UNDERWRITING AND SOCIAL POLICY* 20, 22 (Mark A. Rothstein ed. 2004).

16. James Mittra, *Predictive Genetic Information and Access to Life Assurance: The Poverty of 'Genetic Exceptionalism,'* 2 *BIOsocieties* 349, 352 (2007).

equitable access to coverage. Similarly, GINA recognized that it would be inequitable to deny individuals access to health insurance based on genetic information.¹⁷ In contrast, a commodity is a good that is sold on the open market and one where there is no moral duty for society to ensure equitable access.¹⁸ Life insurance sometimes is seen as a good that falls between a social good and a commodity, as there are arguments for classification of life insurance into both these categories.¹⁹

A. Life Insurance as a Social Good

Life insurance fulfills important public goals of preventing disruption and economic instability in the family of a decedent; therefore, many view it as an essential social good.²⁰ These social goals, however, are challenged if some segments of society are prevented from accessing insurance.²¹ Losing an income can severely affect the fortunes of a family unit if there is no life insurance payout. If the person who passes away happens to be the sole breadwinner, the financial consequences can be even more dire.²² Even the death of a non-wage earner can threaten financial stability because of the costs associated with burial and probate.²³

Since life insurance helps to ensure financial stability across families and generations, barriers to accessing life insurance will

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17. See Genetic Information Nondiscrimination Act of 2008 (GINA), Pub. L. No. 110-233, 122 Stat. 881 (codified as amended in scattered sections of 26, 29, and 42 U.S.C).
 18. Mitra, *supra* note 16, at 352-53.
 19. *Id.*
 20. Mark A. Rothstein, *Genetic Privacy and Confidentiality: Why They Are So Hard to Protect*, 26 J.L. MED. & ETHICS 198, 200 (1998); see, e.g., Rothstein & Hornung, *supra* note 15, at 23 (quoting one study that found that 82.6% of those surveyed believed in a right to life insurance).
 21. MARCUS RADETZKI ET AL., GENES AND INSURANCE: ETHICAL, LEGAL AND ECONOMIC ISSUES 42 (2003).
 22. See, e.g., LIFE INSURANCE AND MARKET RESEARCH ASSOCIATION (LIMRA), LIFE INSURANCE FACT SHEET (2014) [hereinafter LIMRA FACT SHEET], http://www.limra.com/uploadedFiles/limra.com/LIMRA_Root/Posts/PR/LIAM/PDF/2014-LIAM-Fact-Sheet.pdf (noting that half of Americans would feel an impact from the death of a primary wage earner within six months and one third would feel an impact within one month).
 23. See, e.g., Geoff Williams, *What to Do When There's No Money for a Funeral*, U.S. NEWS (Feb. 20, 2013), <http://money.usnews.com/money/personal-finance/articles/2013/02/20/what-to-do-when-theres-no-money-for-a-funeral> (noting that the average cost of a funeral in 2012 was \$7,775).

predominantly affect those in socio-economic classes that are already facing, or are at risk of facing, financial instability. Once an individual has reached a certain level of financial stability, life insurance is less of a necessary good for his or her family.²⁴ Therefore, among those who need life insurance for financial stability, a denial based on genetic information adds one additional barrier of access to the social good.²⁵

Another common argument in this area hinges not on whether individuals have a civil or social right to life insurance, but on the very nature of genetic information itself. Genetic information is uniquely personal and, much like gender, race, or ethnicity, is immutable.²⁶ From the individual rights advocate's perspective, use of genetic information affronts personal privacy and liberty: Denying an individual a basic societal good because of a trait over which they have no control is inherently unfair.²⁷ This view has been criticized as pandering to genetic exceptionalism²⁸ because similar fairness arguments can be made about other underwriting factors. For example, although gender is also immutable, life insurance companies often have different aggregate rates for men and women.²⁹

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24. See, e.g., LIMRA FACT SHEET, *supra* note 22 (noting that younger individuals will feel a financial impact from the death of a wage earner more than older individuals).
25. This is not to say that denial based on a current condition such as cancer, diabetes, or heart disease would not also be a problematic barrier to access. Until there comes a time when society holds life insurance as an unalienable right for all individuals, there will be barriers that prevent some from accessing this good due to the business model of life insurance. While this is an unlikely policy leap in the life insurance arena, it mirrors the path of in health insurance where insurers were first barred from using genetic information to underwrite, and then, several years later, were barred from considering any medical information.
26. Green et al., *supra* note 2, at 399.
27. See, e.g., Eric Mills Holmes, *Solving the Insurance/Genetic Fair/Unfair Discrimination Dilemma in Light of the Human Genome Project*, 85 KY. L.J. 503, 563 (1996); see also INE VAN HOYWEGHEN, *RISKS IN THE MAKING: TRAVELS IN LIFE INSURANCE AND GENETICS* 28 (Amsterdam University Press 2007); but see Mitra, *supra* note 16, at 356 (noting that although race is not an acceptable risk classification, there are many other contexts where one's immutable trait is used for actuarial justification. "Insurers appear to care less about the cause of an applicant's risk than they do the actuarial and statistical consequences of it.").
28. See James P. Evans & Wylie Burke, *Genetic Exceptionalism. Too Much of a Good Thing?*, 10 GENETICS IN MED. 500, 500 (2008).
29. Ronen Avraham et al., *Understanding Insurance Anti-Discrimination Laws*, 87 S. CAL. L. REV. 195, 250 (2014).

Additionally, denying someone life insurance because of current medical conditions may also seem unfair to many in society. Despite the similarities between genetic information and other risk characteristics, it is still common for individuals to have particular indignation for insurer use of genetic information over other types of information. In line with this view, genetic discrimination may be conceptualized as anytime information is used to make an adverse decision, regardless of whether there is a legitimate business reason for doing so.³⁰

B. Life Insurance as an Economic Commodity

In contrast to the social good model, use of genetic information by life insurance companies can be viewed as an economic business necessity.³¹ Under this view, life insurance is not a social entitlement because the individual benefits are different from other social rights. The inability to access employment and health insurance clearly harms individuals through the potential struggle to afford food and housing and the inability to access preventive healthcare services, leading to increased risk of sickness or death. The need for and the harm from not being able to access life insurance is much more attenuated. While the beneficiaries gain a monetary benefit in a life insurance policy, the benefit to the insured individual is indirect and intangible because life insurance benefits go to family members or other named beneficiaries after one's death. Assuring that one's family is financially cared for after one's death is undoubtedly beneficial; however, because of the intangible nature of this security, losing this benefit may not rise to a civil rights injury. If a good is an economic commodity, there is not a moral duty to ensure equitable access.³²

Insurers argue that since the principal purpose of life insurance is economic benefit, the primary goal of the insurance system should be protecting the companies' financial viability. To maintain a viable enterprise, it is vital for insurance companies to know enough about what, or who, they are insuring to classify it into the appropriate risk category—and therefore the correct premium level. If the life insurance underwriters miscalculate this risk, the company must pay unexpected benefits without collecting additional years' worth of premiums and without charging the adjusted higher premium based

30. See, e.g., Yann Joly et al., *Genetic Discrimination and Life Insurance: A Systematic Review of the Evidence*, 11 BMC MED. 1, 25 (2013).

31. See Yann Joly et al., *Life Insurance: Genomic Stratification and Risk Classification*, 22 EUR. J. HUM. GENETICS 575, 575 (2014) (noting that the principal role of life insurance is to provide financial security to beneficiaries).

32. Mittra, *supra* note 16, at 352-53.

on risk. If there is too much miscalculation in this direction, the company may quickly fail.

Genetic information is understandably alluring for life insurance companies given the potential predictive value of genetic testing to foretell risk of certain hereditary diseases that are associated with a shortened lifespan. As more is understood about genetic causes of disease and as the cost of genetic testing decreases, a greater segment of society may undertake genetic testing. Simultaneously, as genomic medical knowledge increases, more will be known about associations between genetic variants and disease risk. Therefore, it is likely that as more people undergo testing, the predictive value of this information will also increase.

If individuals learn of their own genetic risk, but do not inform insurance companies, the informational balance of power will tip towards applicants and skew proper risk classification; a problem that could lead to adverse selection. Adverse selection “refers to the theoretical tendency for low risk individuals to avoid or drop out of insurance pools, with the result that, absent countervailing efforts by administrators, insurance pools can be expected to contain a disproportionate percentage of high risk individuals.”³³ It also causes improper risk classification when asymmetrical information between insurance applicants and companies allows individuals at high risk to apply for greater insurance coverage at premium levels of those with average risk.³⁴ Due to fears of adverse selection, life insurance companies argue that they need to know every piece of medical and other risk information that the individual knows.

C. Unanswered Debate

The debate over whether life insurance is a social good or economic commodity raises many broader policy considerations. Is it fair to deny life insurance to those individuals who happen to have an identified genetic predisposition?³⁵ Will the fear of genetic discrimination, as broadly conceptualized by society, stop individuals from undergoing genetic testing that could lead to important preventive measures? Should policy makers step in to protect these

33. Tom Baker, *Containing the Promise of Insurance: Adverse Selection and Risk Classification*, 9 CONN. INS. L.J. 371, 373 (2002).

34. VAN HOYWEGHEN, *supra* note 27, at 11.

35. For a discussion on the tensions between actuarial fairness and genetic determinism, see Saurabh Jha, *Punishing the Lemon: The Ethics of Actuarial Fairness*, 9 J. AM. C. RADIOLOGY 887, 889 (2012); see also Baker, *supra* note 33, at 394 (arguing that, in the case of genetics, “low risk” individuals “may be only one technological innovation away from losing his or her privileged status—the reality that lies behind the widespread concern with genetic testing by insurance companies.”).

individual interests at the risk of detrimentally affecting the entire life insurance enterprise? Overall, should legislatures protect against genetic discrimination in life insurance to firmly establish life insurance as a social right or should legislatures allow insurers to collect and use genetic information in order to protect the economic viability of the companies?

These broader policy questions continue to be debated at both the state and federal levels. There has been much discussion about whether GINA should be expanded to life and other insurers. While there is some movement on this front, given the current Congressional climate, it is relatively unlikely that such legislation will pass anytime soon. As such, there is currently no federal legislation that definitively clarifies whether life insurance is a social good or strictly an economic commodity in the U.S.

IV. THE SOLIDARITY PRINCIPLE AND ACTUARIAL FAIRNESS

Insurance simultaneously relies on two somewhat competing visions of distributive justice—the solidarity principle and actuarial fairness.³⁶ The solidarity principle undergirds the very reason for insurance overall: An insurance system is essentially a redistribution system transferring money from the lucky to the unlucky. Although all insurance members pay a premium to protect against the risk of loss, only some will ultimately need the protection.³⁷ An early insurance entrepreneur framed the mutual support aspects of the system:

It is from this point of view that [the system of insurance] presents society a union for mutual aid, of the fortunate and unfortunate, where those only who need it receive aid, and those only who can afford it are put to expense. Thus, while the aggregate of human suffering and calamity remains unremoved, human ingenuity and cooperation equalize the distribution of this fearful aggregate, and alleviate the terrors of uncertainty.³⁸

The solidarity model presupposes that risk is uncertain: why else would an individual risk a redistribution of her money to another if she did not believe that under an equally possible scenario she could potentially be the recipient of another's money? In reality, some

36. See, e.g., Baker, *supra* note 33, at 373; Jha, *supra* note 35; Deborah A. Stone, *The Struggle for the Soul of Health Insurance*, 18 J. HEALTH POL. POL'Y L. 287 (1993).

37. See Baker, *supra* note 33, at 372.

38. *Id.* at 372 (citing D.R. Jaques, *Society on the Basis of Mutual Life Insurance*, HUNT'S MERCHANT MAG. & COM REV. 16, 152-53 (1849)).

information about the insured risk is available. A person who smokes is more likely to face chronic illness or early death than a non-smoker; a person with cancer is more likely to die sooner than one who is healthy; and a person who works in a factory is more likely to have a job-related accident than one who works in an office building. While an individual's risk of early death cannot be perfectly predicted, general population statistics regarding factors such as smoking habits, health, demographics, and family health history, can help insurance companies categorize people into risk groups.

Insurers describe the need to classify risk in moralistic terms. It would be patently unfair, they argue, for those with low risk to bankroll the losses of those with higher risk.³⁹ Insurance companies categorize risk to guarantee actuarial fairness—the idea that those with equal risks are treated equally.⁴⁰ This ensures that those with higher risk pay higher premiums so that those with lower risk do not pay an unfair share of premiums. From this business perspective, “discrimination” is conceptualized, not as any adverse decision, but as irrationally categorizing risk.⁴¹ A decision made with no statistical justification would be actuarially unfair and discriminatory. As long as equal risks are treated equally, differentiating between individuals is fair. Thus, denying insurance or charging higher premiums based on sound actuarial data is not only fair, but also a legitimate business

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39. Stone, *supra* note 36, at 288; Xavier Landes, *How Fair Is Actuarial Fairness?*, J. BUS. ETHICS 519, 522 (2014) (“Fairness directly relates to the moral ideal of insurance as seen by the industry”).
40. Landes, *supra* note 39, at 521; Of course, the very idea of precise risk classification can undermine the whole concept of a solidarity model of insurance. If insurance companies are able to get a precise risk profile about an individual from health, social, and genetic information, there is the threat that individuals will be so micro-categorized that each person is paying for their exact fair share. This, however, is the antithesis of the solidarity motivations of insurance because there would be little to no uncertainty left in the process. “In fact, in a world of perfect predictive information, there would be no need and no market demand for insurance, because no one would stand to gain by ‘beating the odds.’” Stone, *supra* note 36, at 294.
41. See, e.g., John V. Jacobi, *Genetic Discrimination in a Time of False Hopes*, 30 FLA. ST. U. L. REV. 363, 367 (2002) (noting that generally, the term “discrimination” in insurance is “not a term of approbation”); see also Landes, *supra* note 39, at 521 (defining unfair discrimination as when equal risks are treated differently); throughout this paper, “discrimination” will refer to the broader societal conception of discrimination—where genetic information is used to make an adverse decision. For any reference to the insurance company standard of “fair discrimination” and “unfair discrimination,” this paper will refer to a presence or lack of actuarial justification, fair or unfair underwriting, or reference to statistical accuracy or fallacy.

necessity.⁴²

Although insurers frame actuarial justification in moral terms of fairness, underwriting is an amoral process focused on statistical rigor and mathematical calculation.⁴³ In reality, insurers have used several mathematically justified underwriting risk factors without considering broader moral consequences.⁴⁴ For example, in the 1980s and 1990s, several insurers' practices exemplified the value-laden consequences that stem from purely mathematical risk assessments. These insurers denied life, health, and disability insurance to women who had experienced intimate partner violence. The insurers argued that the decision to use a history of abuse as a determining risk factor was actuarially justified because, statistically, these women were more likely to file insurance claims.⁴⁵ During the ensuing controversy and uproar following revelation of this widespread practice, many states introduced legislation banning it; however, in several states, this form of actuarial underwriting remains unrestricted in life and disability insurance.⁴⁶

Similarly, although the practice has been universally stopped, in the past it was common for insurers to classify black applicants in higher risk categories than fellow white applicants, all else being equal.⁴⁷ As in the case with domestic violence, many life insurance risk factors and race are statistically associated. However, these insurance decisions, although "actuarially fair," violate an inherent social and

42. See, e.g., Landes, *supra* note 39, at 521.

43. Jha, *supra* note 35, at 889 (explaining that "[a]ctuarial pricing is amoral. It looks only at the risk of the individual, not how the risk was acquired.").

44. Mitra, *supra* note 16, at 355 ("However, the implicit argument that there is no moral ambiguity if actuarially relevant risk data is used to differentiate policyholders is increasingly being challenged. Many rightly argue that judgments of actuarial fairness are inherently subjective and choice of fairness criteria is often a matter of social philosophy rather than actuarial science.").

45. Baker, *supra* note 33, at 392.

46. *Domestic Violence in Insurance*, NAT'L WOMEN'S L. CTR. (2010), <http://hrc.nwlc.org/policy-indicators/domestic-violence-insurance>; see also Jenny Gold, *Domestic Abuse Victims Struggle with Another Blow: Difficulty Getting Health Insurance*, KAISER HEALTH NEWS (Oct. 7, 2009), <http://kaiserhealthnews.org/news/domestic-abuse/>. The ACA effectively banned this practice in health insurance by retraining the use of preexisting condition exclusions.

47. Jill Gauding, *Race Sex and Genetic Discrimination in Insurance: What's Fair?*, 80 CORNELL L. REV. 1646, 1659-60 (1994); see also Mitra, *supra* note 16, at 356 (showing that race is also not allowed as an actuarial category in European insurance models).

moral fairness.⁴⁸

These tensions between actuarial and social fairness mirror those that are playing out in arguments regarding underwriting on the basis of genetic information.⁴⁹ Insurers are loathe to lose access to genetic data that can inform their statistical risk prediction models; simultaneously, individuals are appalled by denials of an important social good based on unfortunate circumstances or immutable traits often tenuously tied to risk. Until state or federal legislatures declare genetic information an unfair and illegal underwriting tool, insurance companies will continue to explore the use of an applicant's genetic data for underwriting. Indeed, these companies may even be required to use genetic information because not doing so would be "discriminatory."

V. ACQUIRING GENETIC INFORMATION

Although the overall value of genetic information as an underwriting tool in life insurance remains contested, the underlying practical question is whether insurance companies are collecting genetic information? The obvious follow-up to this question is the following: If they are collecting it, are they using it? And, if so, for what purpose?

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48. Representatives on the insurance underwriting side have also argued the distinction between actuarial fairness and societal fairness. "The acceptability of underwriting procedures is societally determined and a profession which fails to recognize and make allowances for this may find itself ostracized and increasingly ignored." Thomas A. Moultrie & R. Guy Thomas, *The Right to Underwrite? An Actuarial Perspective with a Difference*, 5 J. ACTUARIAL PRAC. 125, 137 (1997). In this way, actuarial justification is a necessary, but not sufficient condition for fairness.
49. VAN HOYWEGHEN, *supra* note 27, at 39 ("[T]he actuarial profession has no monopoly on wisdom when society comes to decide between competing interpretations of fairness.") (citation omitted); Genetic information is by no means the only continuing potentially problematic basis for insurance underwriting. There are many different items associated with increased risk that may be linked to a person's socio-economic status in troublesome ways. For example, in his review of US underwriting practices, Allen Klein delineates several factors that insurers could utilize in risk classification in the future, such as environmental exposure, geographic location, income levels, and diet and exercise. Allen M. Klein, *Life Insurance Underwriting in the United States—Yesterday, Today and Tomorrow*, 18 BRIT. ACTUARIAL J. 486, 489-99 (2013). Under the social right theory and solidarity model of life insurance, these risk categories are problematic because they may disproportionately affect individuals of lower socio-economic status, thus further threaten economic stability of these groups.

A. Can Life Insurers Legally Ask for and Use Genetic Information?

GINA regulates covered employers and health insurers in two main ways: by prohibiting the use of genetic information to make adverse decisions, such as firing employees or raising insurance premiums; and by generally prohibiting the collection of genetic information.⁵⁰ The law broadly defines genetic information as the results of genetic testing, participation in genetic research, use of genetic services such as genetic counseling, and family medical history.⁵¹ The legislation's goal, in part, was to assuage the public's fear of genetic discrimination—which was preventing individuals from having genetic testing and participating in research.⁵² While quite broad in how it defines genetic information and what activities it prohibits, GINA is limited in scope: it does not apply to life, long-term care, and disability insurers. “This [was] not the result of an oversight: a strategic decision was made early on to recognize the very distinct markets, social purposes, risks of adverse selection, and bodies of relevant law governing these types of insurance.”⁵³ Thus, due to compromises during GINA's thirteen-year legislative journey, the final bill did not include these insurers in the legislation despite similar fear of discrimination.

While there is no federal legislation pertaining to the use of genetic information in life insurance, there is a patchwork of applicable state laws. Overwhelmingly, state law does not *ban* the use; however, most states *regulate* the use. These regulations are generally meager and often fail to provide individuals with meaningful protections against discrimination beyond existing state law. For example, many states prohibit life insurers from, on the basis of genetic information, “unfairly” discriminating against applicants.⁵⁴ In this legal context, “unfair” does not refer to the broader societal conception of discrimination, but merely requires life insurers to have

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50. Genetic Information Nondiscrimination Act (GINA), 2008 P.L. 110-223, CRS-1, CRS-10 (codified as amended in scattered sections of 26, 29, and 42 U.S.C.)
 51. 42 U.S.C. § 300gg-91 (2011).
 52. David Resnick, *GINA – A Big Step Toward Personalized Medicine*, BOSTON BUSINESS JOURNAL (Aug. 21, 2008) <http://www.bizjournals.com/boston/blog/mass-high-tech/2008/08/gina-a-big-step-toward-personalized-medicine.html?page=all>.
 53. Kathy L. Hudson et al., *Keeping Pace with the Times—the Genetic Information Nondiscrimination Act of 2008*, 358 NEW ENG. J. MED. 2661, 2663 (2008).
 54. Anya E.R. Prince, *Comprehensive Protection of Genetic Information—One Size Privacy of Property Models May Not Fit All*, 79 BROOK. L. REV. 175, 210 (2013).

actuarial justification for any decisions. Although these laws attempt to specifically address the use of genetic information in life insurance, they do not provide any additional protection to the already existing actuarial requirements.⁵⁵ Thus, while these laws prevent an insurance company from applying a higher premium rate based on a genetic variant unassociated with increased risk of death, they do nothing to stop insurers from doing the very thing that worries applicants—denying insurance based on a genetic predisposition to a disease.

Other types of state laws do not directly address discrimination concerns, but provide privacy protections to individuals. For example, in some states, life insurance companies cannot require applicants to undergo genetic testing.⁵⁶ In other states, insurers can require the applicant to undergo genetic testing, but must first obtain informed consent.⁵⁷ These laws may prevent unwanted genetic testing from occurring without an individual's knowledge; however, they do not prevent life insurers from using genetic information to charge higher rates or to deny insurance.

Among those states that regulate genetic information and life insurance, California currently has the strongest protections. In 2011,

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55. Mark A. Rothstein, *Genetic Exceptionalism and Legislative Pragmatism*, 35 J.L. MED. & ETHICS 59, 63 (2007) (noting that “[t]he new laws thus appear to address the issue of genetics and life insurance but actually afford no new protections”); Holmes, *supra* note 27, at 552; e.g., N.M. STAT. ANN. § 24-21-4(C) (West 2005) (allowing insurers to use genetic information if based on “sound actuarial principles”); *see also* ARIZ. REV. STAT. ANN. § 20-448(E) (2009) (use of a genetic condition to reject an application or alter the premiums, terms, or conditions of the policy is unfair discrimination unless the insurer can establish a basis for a “substantial difference” in claims). The redundancy of these statutes illustrates one potential problem of genetic exceptionalism. Genetic exceptionalism is a hindrance in this arena because people may believe that legislatures are strongly addressing their concerns of genetic discrimination; however, in reality, such legislation likely does not add any additional protections beyond other medical and social information.
56. *See, e.g.*, MASS. GEN. LAWS ANN. ch. 175, § 120E (West 2011) (banning insurers from requiring individuals to undergo genetic testing as a condition for coverage); VT. STAT. ANN. tit. 18, § 9334(a)(1) (1997) (restricting policies underwritten on the basis of a requirement to undergo genetic testing); *but see* ME. REV. STAT. ANN. tit. 24-A, § 2159-C(3)(B) (2009) (noting that genetic tests can be required in insurance as long as the individual is notified and given the option to receive the results).
57. *See, e.g.*, ARIZ. REV. STAT. ANN. § 20-448.02(A) (1997) (requiring written informed consent for an insurer to perform a genetic test); MINN. STAT. ANN. § 72A.139(5) (West 1995) (requiring written informed consent that is approved by the Commissioner for insurers to test); N.Y. INS. LAW § 2615(a) (McKinney 2005) (requiring written informed consent prior to testing).

the California legislature passed Cal-GINA, a law that modified the Unruh Civil Rights Act⁵⁸ to add genetic information as a protected class. Cal-GINA adopted GINA's broad definition of genetic information, and included genetic test results, family medical history, and use of genetic services in the definition.⁵⁹ Therefore, regardless of their genetic information and family history, all individuals are "entitled to the full and equal accommodations, advantages, facilities, privileges, or services in all business establishments of every kind whatsoever."⁶⁰ Unruh provides individuals full accommodations to all businesses, including insurance companies.⁶¹ This guarantee applies to both access to the business and pricing differentials.⁶² However, there is no Unruh violation if pricing differentials are "reasonable"—those based on actuarial justification.⁶³ This means that although California is the state with the strongest protections because insurers cannot use genetic information—including family history—to deny life insurance, life insurers may still be able to legally use genetic information to charge variable premium rates.

B. Do Life Insurers Ask for Genetic Information?

Life insurance companies do not broadly advertise underwriting practices, application questions, or other business aspects of the industry. The companies across the U.S. have little transparency, in part, because underwriting practices are closely linked to the companies' market competition strategies.⁶⁴ Although overall company practices are difficult to gather, interviews with life insurance industry groups and companies regarding the collection of genetic information illuminate current practices.⁶⁵

Life insurers have not begun to widely collect information about

58. CAL. CIV. CODE § 51(e)(2) (West 2011).

59. Cal. Gov't Code § 1292(i).

60. Unruh Civil Rights Act, CAL. CIV. CODE. at § 51(b) (West 2011).

61. *Id.*; CAL. INS. CODE § 1861.03(a) (West 1990).

62. *Chabner v. United of Omaha Life Ins. Co.*, 225 F.3d 1042, 1050 (9th Cir. 2000).

63. *Id.* at 1050-52. (finding that the insurer's assigned mortality rating due to the applicant's fascioscapulohumeral muscular dystrophy was not actuarially sound and was therefore unreasonable and a violation of Unruh, but a price differential would not have been a violation if it was actuarially based and reasonable).

64. *See, e.g.*, Stone, *supra* note 36, at 306-07.

65. *See, e.g.*, Kira Peikoff, *Fearing Punishment for Bad Genes*, N.Y. TIMES (April 7, 2014), http://www.nytimes.com/2014/04/08/science/fearing-punishment-for-bad-genes.html?_r=0.

genetic testing during the application process.⁶⁶ Each company does not want to be the first to adopt questioning for two likely reasons: they fear negative publicity from consumers; and they want to attract new customers by using easy, streamlined application procedures.⁶⁷ Lack of collection is currently unlikely to skew actuarial determinations because relatively few individuals have taken genetic tests and there are few genetic tests for which a positive result strongly or definitively predicts the risk of disease. Instead, companies create risk profiles for each applicant based upon personal health information, behavioral patterns, and—the proxy for genetic information—family history. Family history can help to predict the risk of hereditary disease and is a socially established and acceptable way for insurers to obtain risk information.⁶⁸

C. Are Life Insurers Accessing Genetic Information?

Although life insurers are not yet directly asking for genetic information on applications on a widespread basis, there are several other ways that the application and underwriting process can bring this information to light. First, if an individual's application responses raise any red flags, or if there is a high dollar amount of insurance requested, the underwriter may request the applicant's medical records or, with the applicant's permission, send questions to the applicant's doctor.⁶⁹ The medical records or conversation with the

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66. Roberta B. Meyer, *The Insurer Perspective*, in GENETICS AND LIFE INSURANCE 30, 36 (M. A. Rothstein ed. 2004) (noting that no insurers were known to explicitly ask about testing or to require testing); *but see* Rothstein, *supra* note 20, at 200 (noting that there is evidence that life insurers have begun to use genetic information that they do get access to).
67. Peikoff, *supra* note 65; VAN HOYWEGHEN, *supra* note 27, at 57 (noting that the medical questionnaire is part of the marketing scheme to attract customers. "A company may also be after higher sales by offering more flexible underwriting guidelines, or it may target young affluent clients by not requiring any underwriting at all in order to lure them into purchasing its other products as well.").
68. *But see* Robert Klitzman et al., *Should Life Insurers Have Access to Genetic Test Results?*, 312 JAMA 1855, 1855 (2014) (noting that genetic data for some conditions is more accurate than family history alone).
69. *See, e.g.*, Jean E. McEwen et al., *A Survey of Medical Directors of Life Insurance Companies Concerning Use of Genetic Information*, 53 AM. J. HUM. GENETICS 33, 34-35 (1993); Holmes, *supra* note 27, at 561 (citing Theresa E. Morelli, Genetic Discrimination by Insurers: Legal Protections Needed From Abuse of Biotechnology, Health Span, Sept. 1992, at 8.) ("More than one month later and without any prior notice, the insurer returned my premium without giving me a reason. ...an underwriter informed me of the reason for the denial: my father may

doctor can reveal past genetic test results or referrals to genetic counselors.⁷⁰

Second, in some situations the underwriter requests that applicants undergo a medical exam.⁷¹ There is no current evidence that insurer-contracted physicians conducting these exams order genetic tests. However, the physician may elicit genetic information through questions asked during the exam. This may be the case even if the question is not specifically about genetics or family history. For example, a broad question about medication use can reveal a potential predisposition if the applicant is taking Tamoxifen, a medication that is used to lower the risk of developing cancer for *BRCA*-positive individuals.

Finally, life insurance companies may obtain information about an applicant's genetic make-up through the Medical Information Bureau (MIB). The MIB is a clearinghouse of information about individuals who have applied for multiple types of insurance. When an individual applies for disability insurance, for example, that company may send the MIB the application information. If the same individual then applies for life insurance a few years later, the life insurance company can use the MIB to verify her application answers. The purpose of the MIB is to allow insurers to "detect possible inconsistencies, irregularities, or omissions in the information submitted by an individual in applications to other companies."⁷² Thus, the life insurer will receive genetic information without directly asking the applicant if it is housed in the applicant's MIB file.

As it currently stands, it is not clear whether or not life insurers intend to use the non-disclosure of unasked-for genetic information as grounds for rescission, although there have been attempted rescissions based on unasked for medical information.⁷³ Therefore, it is a realistic possibility. Even if—or when—insurers begin to ask for genetic information, they may not start using such information for underwriting decisions immediately. Instead, insurers may track

have Huntington's Disease, a hereditary illness. I remember that the application did not ask if I had a genetic disorder or was at risk for one. The insurer got my father's diagnosis from my doctor.").

70. Gleeson, *supra* note 13, at 91-92 (noting that underwriters often discover genetic information in clinical records).
71. McEwen et al., *supra* note 69, at 34-35
72. Harry Ostrer et al., *Insurance and Genetic Testing: Where Are We Now?*, 52 AM. J. HUM. GENETICS 565, 566 (1993).
73. See, e.g., 6A Couch on Insurance § 88.1 (noting that "statements and nondisclosures regarding health are one of the most frequent bases for an insurer attempting to avoid coverage on the ground of misrepresentations, breach of warranties, or failure of conditions.")

genetic information from those already in the insurance pool and correlate this information with life spans and mortality rates. In this way, insurance companies can amass their own evidence base to determine whether a certain genetic variant is associated with increased mortality.⁷⁴ However, due to the lack of insurer transparency, an applicant has no assurance before applying whether the company will use genetic information for immediate coverage decisions, save the information for future statistical analysis, or ignore the information completely.

Although life insurance companies could gain access to genetic information through medical records, medical examinations, or the MIB, these processes are expensive. Therefore, the insurer is incentivized to approve the policy based on the application alone. An application is likely to be approved without further interrogation if it does not raise any significant red flags—a situation that may be more likely in the case of a healthy asymptomatic individual with a genetic predisposition. In some situations, these approvals are granted automatically, without direct human involvement: “Rules are pre-programmed into the software. If the proposed insured meets the pre-determined guidelines, they are not only approved for coverage; in some cases, the policy is also issued immediately upon a favourable system review. Depending on the rules, 30%-70% of policies are typically approved by the system as just described.”⁷⁵ This streamlined application process is more likely to create situations where applicants are not explicitly asked about genetic information.

VI. RESCISSIONS

A. Rescissions and Post-Claims Underwriting

If a life insurance company discovers a misrepresentation on the original application after a policy is already in place, it may attempt to rescind the policy. This can occur at any time after a policy is approved, even after the insured has died.⁷⁶ Post-claims underwriting, the process of going back and carefully reviewing an insurance policy after a beneficiary files a claim, is a lawful albeit controversial

74. For example, this is what occurred in the underwriting of smoking risk. Once insurers began to gather information on smoking habits they could determine the actuarial relevancy from the collected evidence. VAN HOYWEGHEN, *supra* note 27, at 75.

75. Klein, *supra* note 49, at 492.

76. *But see infra* Section VI.C. for a discussion of when incontestability clauses prevent life insurers from rescinding policies many years after they go into force.

business practice.⁷⁷ When an application for life insurance is followed closely by the death of the newly insured, the insurance company may suspect that the applicant had a reason to believe that his death was looming, and that he failed to disclose it to the company. Thus, post-claims underwriting is especially likely to occur if the insured passed away shortly after the application.

Some insurance companies strategically rely on post-claims underwriting as a business strategy.⁷⁸ For example, in 2009, more than 5,000 life insurance claims were denied or disputed, two-thirds on grounds of misrepresentation.⁷⁹ The companies opt to limit underwriting on the front end so that applications are processed quickly, customers are lured in, and costly application inquiries into medical records and physical exams are avoided. After a death has occurred, the company can then interrogate the claims and original application in depth. If the company finds grounds for a rescission at this stage, it can save money by cancelling the policy and refunding past premiums paid, rather than paying the claim benefits.⁸⁰ This strategy is also effective at saving money for insurers because many policies never result in claims. In term life insurance, if a person is still alive after the term is finished, the insurance company has collected the premiums without ever having to pay a claim.⁸¹ An insurer that relies on a system of post-claims underwriting to catch misrepresentations on term life applications would thus avoid paying for extensive underwriting because no claim was ever initiated, obviating the need for any post-claim investigation.

While this practice is economically logical for life insurers, it is unfair to applicants, policyholders, and their beneficiaries—especially in the case of innocent mistake on an application. Post-claims underwriting in the case of innocent mistake prevents the individual from correcting the error during her lifetime and ensuring benefits for her family. Additionally, post-claims underwriting places the burden of litigation and loss of benefits on the beneficiary, not the

77. See Thomas C. Cady & Georgia Lee Gates, *Post Claim Underwriting*, 102 W. VA. L. REV. 809, 813-14 (1999).

78. See, e.g., *id.* at 823-24.

79. Lisa Girion & Sandra Poindexter, *Flaws Can Cancel Life Insurance — After Death*, L.A. TIMES (Nov. 21, 2010), available at <http://articles.latimes.com/2010/nov/21/local/la-me-life-insure-20101121>.

80. Cady & Gates, *supra* note 77, at 818.

81. Steven Kass, *Life Insurance Fundamentals*, in UNDERSTANDING INSURANCE LAW 2009, 236 (Laura A. Foggan & Suzan F. Charlton eds., 2009)

applicant—a burden that can have dire financial consequences.⁸² Regardless of the ethics of this strategy, it will only be effective in the context of genetic information if failure to disclose genetic information on an application legally constitutes grounds for rescission.

B. Legal Grounds for Rescission of Life Insurance Policies

Misrepresentation on an insurance application may constitute sufficient grounds for rescission of a life insurance policy. A misrepresentation is “an assertion that is not in accord with the facts,”⁸³ and in some cases, that can include non-disclosure of facts.⁸⁴ An insurance policy is voidable if there is a misrepresentation that is either fraudulent or material.⁸⁵ A fraudulent misrepresentation occurs when an individual knowingly makes a false assertion with the intent to deceive the other party.⁸⁶ A misrepresentation is material if the statement prompts an individual to accept a contract that they otherwise may not have.⁸⁷

In order for an insurance company to rescind a policy, they must show four elements: 1) that there was a misrepresentation; 2) that the misrepresentation was either fraudulent or material; 3) that the insurer actually relied on the misrepresentation as an inducement to accept the application; and 4) that the reliance was justified.⁸⁸ This paper begins with the assumption that the first element is satisfied because there was either a false assertion or omission regarding the applicant’s genetic information and will focus on the second element of proof. The paper will not focus on actual or justifiable reliance, the third and fourth elements, as these elements are beyond the discussion of whether failure to disclose genetic information in an application is fraudulent or a misrepresentation.

Thus, the main inquiries for this paper are whether or not the misrepresentation was material and whether or not the misrepresentation was fraudulent. State law varies regarding the

82. *Id.* at 818-19; *see also* Girion & Poindexter, *supra* note 79 (reporting on a woman who lost her home and had to take a new job to make ends meet after her husband died and his life insurance policy was rescinded).

83. RESTATEMENT (SECOND) OF CONTRACTS § 159 (1981).

84. *Id.* at § 161; 6 Couch on Insurance § 81:6 (3d ed., rev. 2012).

85. RESTATEMENT (SECOND) OF CONTRACTS § 161 cmt. b.

86. BLACK’S LAW DICTIONARY 461 (3d pocket ed. 2006) (defining fraudulent misrepresentation as “a false statement that is known to be false or is made recklessly – without knowing or caring whether it is true or false – and that is intended to induce a party to detrimentally rely on it.”).

87. *See infra* section VII.

88. *See* RESTATEMENT (SECOND) OF CONTRACTS §§ 159-172 (1981).

whether both elements are needed or whether one is sufficient. For example, in some states, *any* material misrepresentation is sufficient grounds for rescission, but other states require a showing of *both* an intent to deceive *and* materiality.⁸⁹ However, this paper will follow the elements of the Restatement (Second) of Contracts that a finding of *either* intent *or* materiality is sufficient grounds for rescission so that it can discuss each element separately in a clear fashion.⁹⁰

C. Incontestability Clauses

Although life insurance companies are allowed to perform post-claims underwriting, most states oblige insurance contracts to have incontestability clauses.⁹¹ Incontestability clauses require insurers to challenge the validity of a policy within a certain time frame, usually two years.⁹² If an insurer fails to bring a rescission claim prior to this time, it will have waived its ability to do so.

The purpose of incontestability clauses is to reassure applicants that, after a certain time frame, they will not be denied benefits in the future. In this way, one of the original motivations of incontestability clauses was to generally prevent insurers from undertaking the type of post-claim underwriting that is unfair to the individuals and their beneficiaries. “[The incontestability clause] prevents an insurer from lulling the insured, by inaction into fancied security during the time when the facts could best be ascertained and proved, only to litigate them belatedly, possibly after the death of the insured.”⁹³

However, there is a growing trend in state law to have an incontestability clause exception for fraud. Under these provisions, an insurance contract may be contested within the set time period after the policy is approved; after that period, an insurer can only seek to rescind the policy on grounds of the more stringent legal standard of proof of intent to deceive for fraud or fraudulent misrepresentation.⁹⁴

89. John Dwight Ingram, *Misrepresentations in Applications for Insurance*, 14 U. MIAMI BUS. L. REV. 103, 103-06 (2005) (explaining that there are generally four bases for rescission: “1) any material misrepresentation; 2) intent to deceive or a material misrepresentation; 3) intent to deceive or an increase in the risk of loss; and 4) intent to deceive and materiality.” The last three bases generally require a combination of both an intent to deceive and materiality, although they differ in the type and strength of materiality).
90. See RESTATEMENT (SECOND) OF CONTRACTS § 162 (1981).
91. Ingram, *supra* note 89, at 112.
92. Cady & Gates, *supra* note 77, at 850.
93. Metropolitan Life Ins. Co. v. De Nicola, 58 N.E.2d 841, 842 (Mass. 1944).
94. See, e.g., Ingram, *supra* note 89, at 112-13.

A minority of states allow for exceptions of incontestability clauses even when there has been no intent to deceive.⁹⁵

Thus, the implications of claiming that failure to disclose genetic information on an application is fraud are vast. If non-disclosure of genetic information is tantamount to fraud, life insurance policies could be rescinded years, even decades, after an application is filed. In the minority states where intent is not a requirement of the exception for incontestability clauses, a person could have their policy rescinded after their death, even in a situation where that applicant had no intent to deceive and tried to answer all questions truthfully.

VII. MATERIALITY

Materiality hinges on whether a false statement will persuade an insurer to accept an application that they may not have otherwise accepted: “A misrepresentation is material if it would be likely to induce a reasonable person to manifest his assent, or if the maker knows that it would be likely to induce the recipient to do so.”⁹⁶ In the context of insurance, the question of materiality hinges on if, and how, the correct information would have changed the insurer’s risk calculation during the underwriting process, both in terms of accepting the application and setting premium rates.⁹⁷ There are three main questions regarding issues of materiality that may arise in the context of genetic information and life insurance applications. First, must a genetic predisposition cause the death of the insured for there to be a post-claims rescission? Second, if genetic information fails to meet standards of actuarial justification, can it be material? Finally, can the insurance company argue that genetic information is material if they did not directly ask about it on the application?

95. *See, e.g.*, *Ledley v. William Penn Life Ins. Co.*, 651 A.2d 92, 95 (N.J. 1995) (noting that “[e]ven an innocent misrepresentation can constitute equitable fraud justifying rescission.”).

96. RESTATEMENT (SECOND) OF CONTRACTS § 162(2) (1981).

97. *See, e.g.*, *Oade v. Jackson Nat’l Life Ins. Co. of Michigan*, 632 N.W. 2d 126, 131 (Mich. 2001) (holding that a misrepresentation is material when it would have both caused a “rejection of the risk” or the “charging of an increased premium.”); *Harper v. Fidelity and Guar. Life Ins. Co.*, 234 P.3d 1211, 1217 (Wyo. 2010) (noting that facts are material if they increase the risk so as to cause either denial of the application, higher premiums, or other conditions). States vary in whether they use a reasonable insurer standard or a subjective standard for determining materiality. *Compare, e.g.*, *W. Coast Life Ins. Co. v. Ward*, 132 Cal. App. 4th 181, 187 (2005) (applying a subjective test of materiality, not one based on an “average reasonable” insurer, citing *Imperial Casualty & Indemnity Co. v. Sogomonian*, 243 Cal. Rptr. 639) *with* *Jackson Nat’l Life Ins. Co. v. Snead*, 499 S.E.2d 173, 176 (Ga. Ct. App. 1998) (applying a “prudent insurer” standard).

A. Causality

The underlying policy rationale for allowing insurance rescissions is that individuals should not be unjustifiably rewarded for making a misrepresentation on an application, especially a knowing one. If insurers would not have approved the application based on omitted information, why should they ultimately be responsible for paying the beneficiaries the claim? However, this logic is more attenuated when there is no causal relationship between the omitted risk factor and the eventual death. Therefore, some plaintiffs have argued that a misrepresentation can only be material if it causes or contributes to the insured's claim.⁹⁸ Others worry that a causality requirement could encourage fraud. "If the cause of loss *is* connected to the misrepresented fact, the insured has lost nothing, because he wouldn't have had coverage anyway. If the cause of loss is not connected, he has coverage he otherwise couldn't have obtained. Thus, he had nothing to lose by misrepresenting."⁹⁹ Perhaps in part due to this concern, the majority of states define materiality, not by what information is material to the insured event, but what information was material to the underwriting of the application.¹⁰⁰ Only a minority of states—Arizona, Arkansas, Kansas, Missouri and Rhode Island—requires that the misrepresented matter must have contributed to an insured's death to be considered material.¹⁰¹

This task of determining potential causality is especially difficult in situations where the omitted information is related to the death, but not necessarily causative. For example, in *Derickson v. Fidelity Life Association*, a life insurance beneficiary brought suit after the

98. See, e.g., *Hartford Life and Accident Insurance Company v. Nittolo*, 955 F.Supp. 33 (D.N.J. 1997).

99. Ingram, *supra* note 89, at 111.

100. *Id.* (noting that "[i]n most jurisdictions, a misrepresentation is considered material and sufficient grounds for rescission or denial of a claim regardless of whether the fact misrepresented has any causal connection with the death or loss involved in the claim). The general policy behind this broad failure to adopt a causality standard is the idea that the insurer would not have offered the insurance policy at all if the material information had been properly provided. Therefore, the policy should be *void ab initio* and treated as invalid overall—regardless of the ultimate cause of death.

101. Kathryn H. Vratil & Stacy M. Andreas, *The Misrepresentation Defense in Causal Relation States: A Primer*, 26 TORT INSUR. LAW J. 832 (1991) (Note: The article discusses several other states, but these are not relevant to the life insurance context: Nebraska (statute only applies to accident and sickness insurance), Oklahoma (statute only applies to limited stock policies that are no longer offered in the state), New Jersey (a lower court interpreted an implicit causal relationship in the relevant statute, but the state supreme court reversed)).

insurer failed to pay the benefits on a \$50,000 policy on the grounds of misrepresentation.¹⁰² When Christopher Derickson applied for a life insurance policy in 1992, he failed to disclose that his driver's license had been suspended nine times and revoked four times due to reckless and negligent driving.¹⁰³ In 1993, he died in a one-car accident following a period of being awake for approximately thirty-six hours during the birth of his son. The insurance company argued that Mr. Derickson's negligent driving was the cause of his death; therefore, his misrepresentation on the application was material. The court, however, found that there was sufficient evidence to find that negligent driving was not the cause of death since a witness stated that Mr. Derickson was not driving recklessly when the accident occurred and remanded the case to the district court for a jury trial.¹⁰⁴

Similarly, in the context of genetic information, the question of causality cannot always be clearly determined. As will be discussed further below, the predictive value of many variants, especially novel ones that are ascertained through genomic sequencing, is currently very low.¹⁰⁵ One method to determine the potential link between genes and common diseases is through genome-wide association studies (GWAS). GWAS search through large amounts of genomic sequences in order to discover markers that are associated with certain medical symptoms or conditions.¹⁰⁶ These studies, however, predominately provide information about the *correlation* between conditions and genetic variants: They rarely provide information about *causation*.¹⁰⁷

For example, GWAS studies have found 35 common genetic variants that are associated with coronary artery disease (CAD), the leading cause of death worldwide.¹⁰⁸ However, these variants account for less than 4% of the differences between the occurrences of CAD among individuals. Lifestyle, environmental, and other unknown genetic factors explain 96% of the reason why one given individual will develop CAD and another will not.¹⁰⁹ Thus, if an individual with

102. *Derickson v. Fidelity Life Ass'n*, 77 F.3d 263 (8th Cir. 1996)..

103. *Id.* at 264.

104. *Id.* at 264-66.

105. *See infra* Section VII.B.

106. John Hardy & Andrew Singleton, *Genomewide Association Studies and Human Disease*, 360 NEW ENG. J. MED. 1759, 1760 (2009).

107. *See, e.g., id.* at 1072 (noting that GWAS is most likely to find indirect associations).

108. John F. Peden & Martin Farrall, *Thirty-Five Common Variants for Coronary Artery Disease: The Fruits of Much Collaborative Labour*, 20 HUMAN MOLECULAR GENETICS R198, R200 (2011).

109. *Id.* at R198.

one of these variants dies from heart disease, it may be difficult for the insurance company to prove that it was the genetic variant that caused the death, and not lifestyle or environmental factors.

Additionally, many genes are pleiotropic: they are associated with multiple, seemingly unrelated, symptoms or conditions.¹¹⁰ These genes may be strongly associated with one or two conditions, but weakly associated with several others. For example, the pathogenic variants causing Lynch Syndrome are strongly associated with colon cancer, however their association with breast cancer is debated.¹¹¹ Imagine if Susan from our case example turns out to have Lynch Syndrome and subsequently dies of breast cancer. Life insurers may not be able to definitively prove that her genetic mutation caused her breast cancer, and therefore her death, given the inconsistent evidence regarding whether breast cancer is caused by the mutation or not. Thus, in the minority of states that require a causal relationship between the misrepresentation and the death, insurers may have a difficult time establishing a clear causation, even in cases where mutations in a single gene cause a disease.

B. Actuarial Justification

In most states, misrepresentation is material if, had it been known at the time of the underwriting, it would have caused the insurer to alter the assessment of risk.¹¹² If the information would statistically affect risk significantly, and therefore alter underwriting, it is material. Arguably, the reverse should also be true: If a potential risk factor fails to meet the standards of underwriting, it cannot be material.

Underwriting seeks to properly evaluate an applicant through accurate risk evaluation and categorization.¹¹³ Underwriters are required to choose risk categories that are linked to statistically likely and anticipated outcomes.¹¹⁴ “A relationship between a risk

110. See, e.g., Jonathan M. Kocarnik & Stephanie M. Fullerton, *Returning Pleiotropic Results from Genetic Testing to Patients and Research Participants*, 311 JAMA 795 (2014).

111. Wendy Kohlmann & Stephen B. Gruber, *Lynch Syndrome*, in *GENEREVIEWS™* (Roberta A. Pagon et al. eds., 2014), <http://www.ncbi.nlm.nih.gov/books/NBK1211/>.

112. Ingram, *supra* note 86, at 110.

113. See Stone, *supra* note 35, at 296.

114. The Bazelon Center for Mental Health created a guide about risk classification in health and disability insurance. In this guide, they articulate several types of evaluative questions that insurers and those assessing the risk classification practices of the companies can consider to determine the fairness of actuarial determinations. “(a) Are the elements of the classification (e.g. medical condition, current treatments,

characteristic and an expected outcome, such as cost, is demonstrated if it can be shown that the variation in actual or reasonably anticipated experience correlates to the risk characteristic.”¹¹⁵ If the

history of prior treatment) sufficiently correlated with the relevant outcome measure (e.g. an elevated level of cost) for all members of the defined policyholder class? And, to what should costs be compared? What is the appropriate benchmark comparison group or class?; (b) Is any element of the classification superfluous? Does each element make a statistically significant contribution to the outcome?; (c) Is the correlation between classification and the outcome (cost) bona fide? Is it clear that the correlation is not an artifact of one or more unmeasured variables (i.e. statistically spurious)?; (d) Is it clear that an otherwise lawful classification is not operating as a surrogate for one which is impermissible, e.g. medical condition as a surrogate for race?; (e) Are the data used to establish the correlation between classification and outcome drawn from actuarial cost experience of people who are substantially similar to those subject to the classification?; (f) Are the data sufficient to ensure a high degree of accuracy (actuarial credibility)?; (g) Are members of the class similar and consistent with one another in terms of risk profiles (“homogeneity”)? Do members of one class have risk/cost profiles which are distinct from members of other classes (“separation”)?; (h) Where the insurer’s underwriting action is to decline a category of risks outright, can the insurer demonstrate that excess costs are not transitory and cannot be mitigated with less severe underwriting actions, e.g. a time-limited exclusionary rider?” Larry Kirsch, *Assessing the Actuarial Basis for Health-Related Underwriting in Medical and Disability Insurance*, BAZELON CTR. FOR MENTAL HEALTH L. (2005), <http://www.bazon.org/LinkClick.aspx?fileticket=R9YQS4gzb44%3D&tabid=345>. These probing questions illustrate the depths of interrogation that advocates can use to challenge initial actuarial determinations. Considering these questions in the context of genetic information highlights areas where actuarial justification may fall flat. For example, genetic information could easily be used as a surrogate for an impermissible classification such as race – as highlighted in question (d). Additionally, genetic research can suffer from lack of minority participants and there may be concerns as to the homogeneity of risk profiles, as discussed in question (g).

115. ACTUARIAL STANDARDS BOARD, *Actuarial Standard of Practice (ASOP) No. 12: Risk Classification (for All Practice Areas)*, 3 (2005), http://www.actuarialstandardsboard.org/pdf/asops/asop012_101.pdf. Actuarial justification does not require insurers to establish causation, only correlation; however, this correlation must be sufficient enough statistically. It is important to remember that actuarial fairness does not guarantee social fairness. See *infra* Section IV. “In some cases, the use of a risk characteristic that exhibits a strong correlation to the outcomes of a covered risk, but for which no cause-and-effect explanation has been established, may be unfavorably received by the public.” AM. ACADEMY OF ACTUARIES: RISK CLASSIFICATION WORK GROUP, *On Risk Classification: A Public Policy Monograph* 50 (Nov. 2011), http://www.actuary.org/pdf/finreport/RCWG_RiskMonograph_Nov2011.pdf.

underwriting process imposes a risk classification that is not appropriately tied to the person's actual risk, it will violate principles of actuarial justification. For example, in *Chabner v. United of Omaha Life Insurance*, the Ninth Circuit held that the insurer's assignment of a 96.5% premium increase, generally given to those with a nine to eleven year life expectancy decrease, was not actuarially sound for an individual whose diagnosis of fascioscapulohumeral muscular dystrophy was only associated with a four year decrease in life expectancy.¹¹⁶

While genetic data provides some information regarding the risk profile of an applicant, over-reliance on the predictive value of genetic tests could actually threaten actuarial fairness.¹¹⁷ Such overzealous interpretation of genetic information is not without precedence: there is evidence that, in the past, insurance companies have overestimated the predictive value of genetic information.¹¹⁸ However, there are currently relatively few conditions for which a genetic test can definitively or accurately predict substantial increased risk of disease.¹¹⁹ Even among these conditions, the time of onset and the severity of symptoms are largely unpredictable.

Several issues make precise risk prediction difficult. First, most common conditions and diseases, such as heart disease, diabetes, and cancer, are multifactorial, meaning that they are suspected to be caused by interactions between multiple genes and largely unknown environmental factors. Conditions caused by a mutation in a single gene are relatively rare. In those that are caused by mutations in a single gene, such as BRCA-related cancer, Huntington's disease, or cystic fibrosis, validated pathogenic mutations have a much higher predictive value than the variants associate with multifactorial conditions.¹²⁰ "Because multifactorial diseases are caused by a complex interplay of many genetic and non-genetic factors, the predictive

116. *Chabner v. United of Omaha Life Ins. Co.*, 225 F.3d 1042, 1045-46, 1052 (9th Cir. 2000).

117. *Mittra*, *supra* note 16, at 362.

118. *See Holmes*, *supra* note 26, at 515 (stating that "unfair genetic discrimination in insuring can occur simply because of insurer ignorance in granting statistical validity to genomic data that is not sufficiently precise for that purpose."); *see also Ostrer et al.*, *supra* note 70, at 571 (citing evidence that insurance companies have used genetic test results that do not affect morbidity or mortality, such as being a carrier for sickle cell, as a basis of denial).

119. *RADETZKI ET AL.*, *supra* note 21, at 44; *Ostrer et al.*, *supra* note 72, at 565, 571.

120. *Cf. Joly et al.*, *supra* note 31, at 576 (noting that currently, most of the data from whole genome or exome sequencing is "largely indecipherable").

value of testing for a single genetic variant is limited. The disease risk in carriers of the risk variant is only slightly higher than that in non-carriers.¹²¹ Since these variants do not provide much predictive value or may be associated with only very slight increases or decreases in risk, their use by life insurance companies may not meet standards of actuarial fairness.¹²²

Second, genetic mutations vary in the degree to which they cause symptoms to be apparent. “Penetrance” is the term used for the likelihood that a person with a genetic variant will develop the condition. Very few conditions, with the notable exception of Huntington’s disease, have 100% penetrance.¹²³ Instead, a mutation in a gene usually indicates that an individual has an increased chance of developing the disease.¹²⁴ These penetrance rates range from very high, such as a 70% chance of developing kidney cancer with the gene for Von Hippel-Lindau disease (*VHL*), to very low, such as less than a 10% chance of developing cirrhosis in those who have both copies of a mutation in the gene for hemochromatosis (*HFE*).¹²⁵ Even if an individual develops symptoms, there is often a broad range of manifestations. Identifying a causative mutation through a genetic test result, however, usually cannot provide accurate predictive information about how severe the condition will be if it ever develops.¹²⁶ Therefore, the predictive value of genetic testing depends,

121. A. Cecile J.W. Janssens & Muin J. Khoury, *Predictive Value of Testing for Multiple Genetic Variants in Multifactorial Diseases: Implications for the Discourse on Ethical, Legal and Social Issues*, 3 ITALIAN J. OF PUB. HEALTH 35, 36 (2006).

122. Agnus S. Macdonald, *Genetics and Health Costs: Some Actuarial Models*, 1 LAW, PROBABILITY AND RISK 97, 105 (2002).

123. Simon C. Warby et al., *Huntington Disease*, in GENEREVIEWSTM™ (2010), <http://www.ncbi.nlm.nih.gov/books/NBK1305/>.

124. Huntington’s disease is one of the rare conditions that is both caused by one gene and is 100% penetrant. It is also a common example that is used when discussing ethical and legal issues surrounding genetic testing – including the use of genetics in life insurance. However, Huntington’s disease is an anomaly and very few other genetic conditions are as predictive of risk. Janssens & Khoury, *supra* note 121, at 36. More discussion is needed surrounding the complexities of the use of genetic information in life insurance for those conditions that have lower predictive value.

125. *See generally* Carlijn Frantzen et al., *Von Hippel-Lindau Disease*, in GENEREVIEWSTM™ (Roberta A. Pagon, et al. eds., 2012); Kris V. Knowlley et al., *HFE-Associated Hereditary Hemochromatosis*, in GENEREVIEWSTM™ (Roberta A. Pagon, et al. eds., 2012), <http://www.ncbi.nlm.nih.gov/books/NBK1440/?report=classic>.

126. James P. Evans et al., *The Complexities of Predictive Genetic Testing*, 322 BMJ 1052, 1053 (2001).

not only upon the established association between a gene mutation and a disease, but also upon the likelihood that someone with that mutation will actually develop symptoms.

Third, even if a mutation of a genetic variant is associated with an increased risk of disease, it may not be associated with an increased risk of death.¹²⁷ This is particularly true in cases where the genetic condition can be prevented or mitigated through early intervention. For example, mutations in the *BRCA 1* and *BRCA 2* genes are associated with a 40-80% increased risk of breast cancer and an 11-40% increased risk of ovarian cancer.¹²⁸ However, there are effective preventive measures that women with *BRCA* mutations can take, such as increased screenings or prophylactic surgeries to remove her breasts or ovaries.¹²⁹ For example, a recent study found that preventive removal of ovaries lowers the rate of death for women with *BRCA* mutations.¹³⁰ If a woman who has undergone these preventive measures applies for life insurance, the insurer should take into consideration this adjustment to the risk.¹³¹

Finally, the knowledge base of associations between genetic

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127. The actuarial justification for the use of genetic information in life insurance may be very different than the actuarial justification for the use in other insurances, such as long-term care insurance and disability insurance. The likelihood that an individual will develop a disease may be more closely associated with the risk of requiring time off from work or a stay in a long-term care facility, than the risk of death. However, the considerations of risk-lowering preventive measures will also come into play in these other insurance realms. “Although some morbidity data have been developed for these predisposing mutations, it is still too early to develop any meaningful mortality data.” Rothstein, *supra* note 20, at 200; *see also* Macdonald, *supra* note 122, at 114 (actuarially analyzing the effects of genetic information in life insurance and mentioning how this analysis may be different in other insurance realms).
128. NANCIE PETRUCELLI ET AL., *BRCA1 and BRCA2 Hereditary Breast and Ovarian Cancer*, in *GENEREVIEWS*TM 1, 3 (Roberta A. Pagon, et al. eds., 1993), available at <http://www.ncbi.nlm.nih.gov/books/NBK1247/?report=printable>.
129. *Id.* at 19-20, 22; Susan M. Domchek et al., *Association of Risk-Reducing Surgery in BRCA1 or BRCA2 Mutation Carriers with Cancer Risk and Mortality*, 304 *JAMA* 967, 969 (2010).
130. Domchek et al., *supra* note 129, at 972.
131. *See, e.g.*, Louise A. Keogh & Margaret F.A. Otlowski, *Life Insurance and Genetic Test Results: A Mutation Carrier’s Fight to Achieve Full Cover*, 199 *MED. J. AUSTRAL.* 363, 365 (2013) (discussing a case in Australia where a man successfully argued that his Lynch Syndrome was not actuarially tied to risk of death due to the preventive measures he could take to minimize his chances of developing colon cancer).

variants and disease is constantly changing.¹³² Thus, genetic variants that are of unclear significance at the time of an application may later turn out to be predictive for a certain condition. This changing landscape raises complications for insurance risk classification, especially in circumstances of post-claims underwriting. Insurers and applicants should be bound to only consider the state of knowledge at the time of the application, but even in hindsight, this may be difficult. For example, in situations where there is evidence presented both for and against a proposition, like the breast cancer and Lynch Syndrome example¹³³, both parties can contend that the state of knowledge at the time of the application favors their argument.

In summary, most genetic information does not have strong predictive value due to the multitude of causes, both genetic and non-genetic, of most diseases, varying degrees to which a specific mutation will lead to symptoms, and the availability of preventive steps individuals can take to minimize risk for certain genetic diseases.¹³⁴ Yet, the potential use of genetic information in life insurance underwriting remains a high concern of applicants and insurance companies alike. Applicants continue to harbor concerns both for the times when life insurers discriminate based on genetic mutations that have predictive value and for the times when insurers might overestimate risk based on genetic information. On the other hand, even if life insurers are not consistently using genetic information in underwriting, they desire to preserve their right to utilize genetic information for a time in the future when the predictive value may be more certain.

C. Direct Questions on the Application

As discussed above, life insurers are generally not asking about genetic information on initial applications. If an insurer does not request genetic information up front, but later seeks to rescind the contract, can they argue that non-disclosed, unasked for information is material? Or, from the individual's perspective, should the applicant assume that the insurance company has asked for all information that it deems material to underwriting decisions?

Fairness would argue for a requirement that insurance companies seek full and complete information during the application and underwriting process. There are countless environmental, behavioral, and medical risk factors that could contribute to an increased risk of

132. Stefan Timmermans, *Trust in Standards: Transitioning Clinical Exome Sequencing from Bench to Bedside*, 45 SOC. STUD. SCI. 77, 81 (2015).

133. *See infra* Section VII.A.

134. *See* C.D. Daykin et al., *Genetics and Insurance—Some Social Policy Issues*, 9 BRIT. ACTUARIAL J. 787, 789 (2003).

early death. In reality, there is no way that an insurance company could create, or an individual could complete, an application that comprehensibly covered all possible material information. Therefore, both parties naturally draw a line of what they consider material. If an insurer were to ask a broad, catch-all question seeking information, the applicant may choose not to disclose that they carpool to work with a reckless driver, or that they use household cleaning products with high chemical content, or that they have a genetic variant associated with a slight chance of developing a disease, but they may choose to disclose intermittent lower back pain that they have been experiencing. Each of these truths may arguably slightly increase an individual's risk of death or disease, but the applicant may only think of one or may feel that the others are not 'material' in their perspective.

Allowing post-claims underwriting for information the insurance application never asked about creates an unfair system where insurers can require applicants to define for themselves what information is material, but where insurers are allowed to determine whether the applicant's definition of material was sufficient years later, even after the individual has passed away. Life insurance is the business of taking on risk; however, under a system that does not require direct questions on applications, the individuals carry the burden of risk rather than the companies. If they did not properly guess whether they had risk factors that the insurer would deem as material other than the ones asked about on the application, the individual risks losing the insurance. Life insurers are in the best position to determine, prior to the application and policy, what is material to the risk and should be required to ask all relevant information in the application.¹³⁵

Historically, contracts in general and insurance policies in particular required parties to conduct themselves with *uberrimae*

135. See, e.g., *Quincy Mut. Fire Ins. Co. v. Quisset Properties, Inc.*, 866 N.E.2d 966, 973 (Mass. App. Ct. 2007) (finding that the insurers' knowledge and experience counsels the court to require insurers to identify and ask for all information material to underwriting and noting that "imposing the burden of inquiry on the insurer poses no undue burden and reduces, if not eliminates, the difficult determination of what is, or is not, material to the risk of loss from the perspective of an insurer."); *Stipcich v. Metropolitan Life Ins. Co.*, 277 U.S. 311, 316 (1928) (holding that "information not asked for is deemed immaterial"); see also Fred N. Six & Todd N. Thompson, *Misrepresentation in the Application for Life Insurance: Lies in the Eyes of the Beholder*, 52 *INS. COUNSEL J.* 282, 290 (1985) (noting that an insurance company "retains the right to define, by its underwriting standards, what is material to the risk, but it must make a reasonable effort to solicit appropriate information from its insured or be barred from defending on the ground of the insured's failure to provide that information.").

fidei, or utmost good faith.¹³⁶ This would require the applicant to disclose all conditions that she has knowledge of at the time of the application that would affect her risk.¹³⁷ However, since this common law standard developed, the life insurance industry has begun requiring individuals to apply for policies using pre-formed application questions. This rise in required application questions softened the strict requirements of *uberrimae fidei*, “since information not asked for is presumably deemed immaterial.”¹³⁸

For example, in *Southard v. Occidental Life Insurance Company of California*, the Supreme Court of Wisconsin held that a man made no material misrepresentation on his group life insurance application when he did not disclose his quadriplegia.¹³⁹ The court found that the insurance company had not directly asked about any physical impairment or whether he had recently received medical advice.¹⁴⁰ “The insured is not obligated to volunteer statements of every circumstance which anybody may subsequently deem important as affecting the risk upon his life, for it is requisite only that he answer all questions truly, make no untrue statements, and submit himself to a full examination.”¹⁴¹ The *Southard* case is notable because the insured was an insurance agent. Yet, even though he was an expert in the field who knew that an insurance company might consider quadriplegia a material risk, he was still not required to disclose it because the insurer had not asked a relevant question.¹⁴² Legal precedence generally establishes that applicants are not required to provide information beyond what is asked on the application, even if material to risk and underwriting.

136. *Stipcich* at 316.

137. *Id.*

138. *Id.* at 316-17 (noting, however, that applicants are still required to have the utmost good faith in correcting information if medical changes alter the original question answers between the time of application and the delivery of the policy); *William Penn Life Ins. Co. v. Sands*, 912 F.2d 1359, 1362 (11th Cir. 1990) (noting that an insurer can only rescind a policy based on misrepresentations or nondisclosures made in response to an insurer request).

139. *Southard v. Occidental Life Ins. Co. of Cal.*, 142 N.W.2d 844 (Wis. 1966).

140. *Id.* at 846-47.

141. *Id.* at 848 (citing 9 Couch on Insurance (2d), p. 376, sec. 38:58).

142. *Id.* at 847; cf. Holmes, *supra* note 27, at n. 98 (noting that failure to disclose unasked for information may be considered bad faith and citing WILLIAM R. VANCE, HANDBOOK ON THE LAW OF INSURANCE 372 (3d ed. 1951)).

D. Latency

In states where materiality alone, not intent, can establish misrepresentation, rescission of policies is allowed even for applicants' innocent mistakes. Taking this concept to the extreme, some courts have allowed insurers to rescind policies based on latent diseases—conditions that the applicant had while applying, but was unaware of and had never been diagnosed with. For example, in *Davis v. John Hancock Mutual Life Insurance Company*, the Court of Appeals of Georgia granted summary judgment to a life insurer that denied a claim due the applicant's failure to disclose acute lymphocytic leukemia.¹⁴³ The applicant's condition, however, was not diagnosed until after the life insurance policy was in place.¹⁴⁴ The court found that the fact that the disease was latent and undiagnosed at the time of the application was an insufficient defense for the applicant: The insurer established that the representation was untrue and was material, so the intent or knowledge of the applicant was not needed to satisfy the elements of misrepresentation.¹⁴⁵

Allowing rescission for non-disclosure of unknown and latent, but material, conditions is particularly problematic in the realm of genetic testing. For example, an insurer may argue that a certain genetic predisposition is material and that it was present, albeit latently, in the individual at the time of the application. If successful in this argument, the insurer could rescind an insurance policy based on the non-disclosure of a genetic predisposition that the applicant never got tested for—even a genetic predisposition for which the applicant did not know they were at risk.

For example, in Georgia, where the *Davis* case occurred, life insurance companies are explicitly exempted from rules regarding the use of genetic information in insurance.¹⁴⁶ Therefore, under current law, a life insurance company in Georgia could arguably perform genetic testing on a blood sample obtained from an applicant without his or her knowledge or informed consent. If the insurer finds a genetic variant during this sequencing that qualifies as material, it could then potentially rescind the policy for failure to disclose a latent, but material, condition.

143. *Davis v. John Hancock Mut. Life Ins. Co.*, 413 S.E.2d 224, 226 (Ga. Ct. App. 1991).

144. *Id.*

145. *Id.* (noting that “[t]his is true although the applicant may have acted in good faith, not knowing that a representation is untrue.”)

146. GA. CODE ANN. § 33-54-7 (West 1995).

E. Materiality Revisited

If an insurance company can prove that undisclosed genetic information is material, it has established one of the major elements of a claim for rescission based on misrepresentation. In the majority of jurisdictions, the insurance company need not prove that the information caused the death of the insured, only that it would have affected underwriting decisions. These companies, however, generally must solicit information on the initial application in order for it to be considered material: they are barred from claiming that an insured failed to offer up material information that was unasked for on the application. The main question that remains untested is whether a genetic variant or condition is sufficiently correlated to risk to actuarially support an insurance company's claim of materiality to underwriting. Given the vast array of genetic variants and the wide scope of understanding and predictive value for each of these variants, the issues of materiality are likely to apply differently to different conditions and to different variants within each condition.¹⁴⁷ Additionally, as our knowledge of the predictive value of genetic information, as well as the preventive measures available, grows, the materiality of information will shift over time.¹⁴⁸

VIII. INTENT

The second common element often needed to establish a case of

147. *See, e.g.*, Ostrer et al., *supra* note 72, at 570 (“[s]ince several intervening steps may be required in order for disease to develop, the predictive value of a positive test result may be less than that used for previous forms of genetic screening. Indeed, the predictive value of a a positive test result may differ for each of the disease processes that is associated with a given mutation. The age at onset of disease may influence the utility of predictive testing for claims experience, since some diseases may occur at a time late in life, when life insurance companies would ordinarily expect to have an increased claim exposure regardless of test results.”)

148. Since misrepresentation cases, especially those involving post-claims underwriting, are likely to occur years, or even decades, after the initial application, it is important that courts analyze the issues of materiality from the viewpoint of the time that the alleged misrepresentation was made. Thus, if knowledge of the predictive value of a genetic variant increases over time, the materiality determination should not take into account this improved (or lowered) correlation. Rather, the court must examine whether, given the knowledge base at the time of the application, the specific genetic condition or variant would have been material to the underwriting. *See Longobardi v. Chubb Ins. Co. of N.J.*, 582 A.2d 530, 541 (N.J. 1990) (“Materiality should be judged as of the time when the misrepresentation is made. In hindsight, the significance of an untruth may turn out to be greater or less than expected.”).

misrepresentation is intent to deceive. In states that have this requirement, the insurer must prove, not just that there was a false statement or an omission on an insurance application, but that the applicant made this representation or omission knowingly, with the intent to deceive the insurer. In other words, the insurer must show that it was not an innocent misrepresentation.

A. Question of Fact

Whether or not an individual had intent to deceive when making a misrepresentation is a very difficult element to prove. It is challenging to definitely determine what someone was thinking when he or she completed the insurance application. This is especially complicated in post-claims cases since the applicant is now deceased and cannot testify as to their state of mind or understanding of the question. The determination of intent is usually a fact specific inquiry that examines the totality of the circumstances in each individual case. For this reason, courts have often held that issues of intent are questions of fact and often survive summary judgment.¹⁴⁹

Triers of fact must examine all facts within the case to determine whether the applicant had the intent to deceive. This usually involves a determination of whether the applicant had knowledge of the information. Additionally, sometimes the insurer must show whether the applicant understood the non-disclosed information's materiality.¹⁵⁰ For example, in Louisiana,

[t]he intent to deceive must be determined from the attending circumstances which indicate the insured's knowledge of the falsity of the representations made in the application and his recognition of the materiality thereof, or from circumstances which create a reasonable assumption that the insured recognized the materiality of the misrepresentations.¹⁵¹

149. *See, e.g., Cutter & Buck, Inc. v. Genesis Ins. Co.*, 306 F.Supp.2d 988, 1004 (W.D. Wash. 2004) (noting that intent to deceive is a question of fact); *see also Rowley v. USAA Life Ins. Co.*, 670 F.Supp.2d 1199, 1203 (W.D. Wash. 2009) (noting that the question of intent raises issues for the jury); *see also Smith v. Liberty Life Ins. Co.*, 2012 WL 6162757, at *3 (E.D. La. 2012) (noting that the intent to deceive test relies on circumstantial evidence and is therefore not general established in the summary judgment stage (citing *Guillory v. Domtar Indus. Inc. v. John Deere Co.*, 95 F.3d 1320, 1326 (5th Cir.1996))).

150. *See, e.g., Rowley*, 670 F.Supp.2d at 1202-03 (finding that knowledge of a false statement raises a presumption of intent to deceive unless the plaintiff can present evidence to overcome this presumption).

151. *Watson v. Life Ins. Co. of Louisiana*, 335 So. 2d 518, 521 (La. Ct. App. 1976) (citations omitted).

Thus, determination of whether an individual with a genetic predisposition had the intent to deceive must be approached from specific examination of the totality of the circumstances. For example, in *Rowley v. USAA Life Insurance Company*, the court denied the insurers motion for summary judgment because there were sufficient questions of fact for a jury to decide whether the plaintiff intended to deceive the insurer.¹⁵² This case illustrates how the totality of the circumstances can help to provide evidence as to the applicant's state of mind. The insurer argued that the plaintiff had, among other things, failed to disclose serious neck and back conditions and a history of drug use. Although the plaintiff had failed to disclose all information about his neck and back conditions on one application, the court noted that in previous applications, the plaintiff had disclosed this information to the same insurance company; therefore, a reasonable juror could find no intent to deceive.¹⁵³ Similarly, the application asked whether the individual had ever used narcotics, marijuana, and other types of drugs, "unless on the advice of a physician."¹⁵⁴ Although the plaintiff failed to disclose his history of methadone and marijuana use, there was evidence that these drugs were taken on the advice of his doctor.¹⁵⁵ Thus, although on the face of the application it appears that the plaintiff may have lied or intentionally failed to disclose information in his responses, the entirety of the circumstances provide evidence that he may not have had the intent to deceive.

B. Materiality and Intent Revisited

Whether an insurer is required to prove both materiality and intent in order to rescind an insurance policy depends upon both the state and whether the attempted rescission is occurring after the incontestability period. In most states, prior to the incontestability period, a rescission can occur after a showing of *either* materiality *or* intent: After the incontestability period in most states, the insurer must prove *both* materiality *and* intent. A minority of states allow for rescission at anytime, even after the two-year contestability window, with only a showing of materiality. Additionally, in several states, an insurance company can rescind a policy during the incontestability period even when the individual did not know about the condition in question.

Whether a non-disclosed fact is material depends upon whether it

152. *Rowley*, 670 F.Supp.2d at 1204.

153. *Id.* at 1203-04.

154. *Id.* at 1201.

155. *Id.* at 1206.

would have altered the insurers underwriting decision and whether it was asked on the initial insurance application. Additionally, the intent element often depends on the application questions since the type of question asked and the answer given can illustrate to the trier of fact the state of mind of the applicant. The next section will highlight different types of questions about genetic information that may be asked on an insurance application and explore how such questions could affect the determination of materiality and intent.

IX. GENETICS, INSURANCE APPLICATIONS, AND INTERPRETING QUESTIONS

Many commentators claim that life insurance applicants are obligated to disclose to the company any known genetic risk and that they are committing fraud if they fail to disclose such information.¹⁵⁶ However, as discussed above, applicants generally have no duty to disclose information that is not asked for on an insurance application. On the other hand, the insurance company is not required to ask for such information explicitly: general questions can, in some circumstances, be interpreted as seeking information about genetic information.¹⁵⁷ There has been little discussion examining how legal standards of fraud and misrepresentation may actually apply in this area. The current policy landscape provides little guidance to individuals who desire to apply for life insurance and creates a system that may entrap well-meaning individuals into fraudulent behavior despite their best efforts to truthfully apply for insurance.

A broad variety of questions can implicate answers related to genetic information, ranging from seemingly explicit requests for genetic information to expansive questions about health. For each of these question categories, there are myriad of options for phrasing and subtlety of wording that an insurer may choose. These examples are used as illustrations to highlight potential complications with interpretation and the difficulty an applicant with a genetic predisposition may have navigating the application.

A. The 'Direct' Question

Have you ever received a genetic test result that indicates an increased risk of future disease?

Case law makes clear that a knowing lie in response to a direct question on an application will likely satisfy both the materiality and intent elements and would thus be considered a fraudulent

156. *See supra* Section I.

157. *See infra* Section IX.B.

misrepresentation. Therefore, if an individual has had testing that revealed a pathogenic mutation and fails to disclose this, it would likely be considered fraud.¹⁵⁸ For example, if Timothy from the introduction example failed to disclose his recent Lynch Syndrome genetic testing result, the insurer could likely rescind the policy. However, even a direct question about genetic testing results may be ambiguous as the results of genetic testing may show variants with little or no evidence of pathogenicity.

1. Variants of uncertain significance (VUS)

A variant of uncertain significance (VUS), sometimes called a variant of unknown significance, is a variant in a gene for which pathogenic mutations have been identified that cause a disease, but for which there is not enough evidence to determine whether this particular variant is pathogenic or not.¹⁵⁹ Therefore, physicians and the individual tested will not know the implication of the results until further genomic research finds enough evidence to re-categorize the variant as pathogenic or benign. Finding a variant that has unknown clinical significance is not an uncommon result. For example, approximately one-third of *BRCA1* variants identified by sequencing have uncertain clinical significance.¹⁶⁰ If an individual has *BRCA* sequencing and a VUS is found, the answer to the question of whether they have ever received a genetic test result that indicated risk for future disease is quite literally “I’m not sure—and neither is the laboratory.” Therefore, if a question is specifically worded to only collect information about test results that are “positive” or indicate

158. Holmes, *supra* note 27, at 541 (“If an applicant knows materially adverse genetic facts regarding the applicant’s foreseeable need for later medical treatment and care, and also knows that the insurer does not have equal access to these material genetic facts, then that applicant has a good faith obligation to disclose this information to protect the insurer’s solvency and to ensure equitable premiums.” Failure to do so is “tantamount to fraud.”); Meyer, *supra* note 66, at 30.

159. See, e.g., Frederick E. Dewey et al., *Clinical Interpretation and Implications of Whole-Genome Sequencing*, 311 JAMA 1035, 1038-39 (2014); Sharon E. Plon et al., *Sequence Variant Classification and Reporting: Recommendations for Improving the Interpretation of Cancer Susceptibility Genetic Test Results*, 29 HUMAN MUTATION 1282, 1283 (2008); see also Sue Richards et al., *Standards and Guidelines for the Interpretation of Sequence Variants: A Joint Consensus Recommendation of the American College of Medical Genetics and Genomics and the Association for Molecular Pathology*, 17 GENETICS IN MED. 405 (2015) (describing types of variant classification, including VUS, in Mendelian conditions).

160. Plon et al., *supra* note 159, at 1283 (noting that rates of VUS are even higher in understudied population).

increased risk, it may not be clear how an individual should answer if the genetic test result is clinically uncertain.

Additionally, the categorization of genetic variants as pathogenic, uncertain, or benign requires human interpretation and at times various groups disagree as to the classification of the same variant.¹⁶¹ Therefore, an individual could be told that she has a benign variant in a disease-associated gene, but another laboratory classifies the result as a VUS. In this case, even if an insurance question asked whether the person ever had a positive or VUS test result, the applicant could be seen as lying if she said no because, unbeknownst to her, at least one laboratory defined the significance of the variant differently than the laboratory that happened to perform her test.

Furthermore, because the technology is rapidly changing, the databases that help laboratories and physicians to categorize the pathogenicity of a variant may be updated, even week-to-week.¹⁶² Therefore, a variant classification received by an applicant one week could be invalid the next due to advances and newly published studies in genomics. An applicant may answer a question to the best of their knowledge, but an insurer may discover that the clinical interpretation of the applicant's specific variant is now different.

2. Entity performing testing

In addition to the type of result that a person receives, the source of where the individual received test results may arguably affect relevance to answers. Genetic testing performed in a clinical setting is most likely to be relevant to the life insurance context; however, individuals may have access to genetic information through direct-to-consumer (DTC) genetic testing or research testing. It is unclear whether results from these contexts should be collected or used by insurers, particularly because the standards of analytic validity—that is, how well the test truly measures the variants it reports—vary in these arenas.¹⁶³

For example, research laboratories performing genomic sequencing are not held to the same standards of analytic or clinical validity as that of a clinical laboratory.¹⁶⁴ Therefore, if an individual receives

161. Dewey et al., *supra* note 159, at 1039 (finding varying levels of “concordance” in classification depending upon the type of variant).

162. *See* Timmermans, *supra* note 132, at 89.

163. *See* SECRETARY'S ADVISORY COMM. OF GENETIC TESTING, ENHANCING THE OVERSIGHT OF GENETIC TESTS: RECOMMENDATIONS OF THE SACGT (2000), http://osp.od.nih.gov/sites/default/files/oversight_report.pdf (defining analytic validity as how well a test measures what it is intended to measure).

164. Joly et al., *supra* note 31, at 576-77 (“[G]enomic results obtained in the research context may not meet scientific and medical requirements (e.g.

genetic information from a research laboratory, there may be arguments that this is less material to an insurer due to a greater degree of uncertainty as to their validity. Research that has recently been performed in the U.S. likely does not implicate concerns of validity since the Clinical Laboratory Improvement Act (CLIA) now requires that most genetic research results returned to participants be first confirmed in a laboratory meeting clinical requirements.¹⁶⁵ However, if an applicant has research results that were not confirmed in a CLIA-compliant laboratory or from an international laboratory, it may not be fair for life insurers to consider such results as valid. For this reason, it is also unclear what duties individuals have to disclose results collected in a research study when asked generally about genetic tests.

Similar arguments and concerns surround DTC genetic testing results. Recently, due to concerns of the scientific validity and overreaching medical claims, the FDA sent a cease-and-desist letter to 23andMe to discontinue DTC testing.¹⁶⁶ The FDA has the authority to regulate medical devices intended for use in disease diagnosis or prevention.¹⁶⁷ Although the FDA has not historically regulated genetic testing products as devices, the 23andMe letter was a foray in this direction, with the FDA arguing that the company was marketing a medical device that did not have proper government approval.¹⁶⁸ This letter overwhelmingly halted DTC testing across the U.S. However, many individuals have test results received prior to the FDA action—results which raise questions about inclusion in life insurance decision-making and applications similar to research results.

analytical validity, clinical validity, and clinical utility/actionability) for use in the clinic”). Note: Joly et al. also argue that insurers should be restricted from asking about research results in applications in order to encourage individuals to participate in genomics research.). Cf. Ellen W. Clayton, *Informed Consent and Genetic Research*, in *GENETIC SECRETS: PROTECTING PRIVACY AND CONFIDENTIALITY IN THE GENETIC ERA* 126, 131 (Mark A. Rothstein ed., 1997) (noting that, when answering insurance questions about genetic testing, it does not matter whether the testing was part of research or clinical care).

165. Clinical Laboratory Improvement Amendments (CLIA) of 1988, Pub. L. No. 100-578, 102 Stat. 2903 (codified as amended in scattered sections of 42 U.S.C. § 263a); Wylie Burke et al., *Return of Results: Ethical and Legal Distinctions Between Research and Clinical Care*, 166C AM. J. MED. GENET. 105, 107 (2014).

166. Patricia J. Zettler et al., *23andMe, the Food and Drug Administration, and the Future of Genetic Testing*, 174 JAMA INTERNAL MED. 493 (2014).

167. *Id.* at 493.

168. *Id.*

3. Planning on getting a genetic testing

Finally, if a life insurance application asks a direct question about genetic testing, there can still be complications regarding how to answer if an individual is considering getting genetic testing in the future. For example, if a question asks whether a person has received results, does Alfred need to respond that he is planning on getting tested? This similar type of debate occurred surrounding other medical conditions. Many insurers now ask, not only ‘have you ever been treated for a condition’, but also ‘have you been consulted about or been recommended to receive treatment for a condition.’ If the insurance company does not ask this broader question regarding genetic testing however, Alfred may answer the question honestly: that he has never received a genetic test result. Despite this honesty, the insurance company may try to argue later that this was a fraudulent answer because Alfred failed to disclose that he had sought genetic counseling and was planning on getting testing. Similarly, although a genetic counselor or a physician has not directly told Susan that she should get tested, her brother’s genetic counselor likely communicated the need for the siblings to get tested. Should Susan be required to disclose this despite her lack of intention to ever undergo testing herself?

Predictive genetic testing and conditions that are known to have a genetic association are often spoke about in general culture at the gene level—such as a person who has received a “positive result for *BRCA1*” or someone “has *APOE*”, a gene associated with Alzheimer’s disease. In reality, information about risk comes from analysis at the variant level, which shows changes within a particular gene. Therefore, genetic risk should be described as “testing positive for a mutation in a *BRCA 1* gene” or having “a variant in *APOE* associated with an increased risk of Alzheimer’s Disease.” Additionally, the variety of sequencing technologies and the human interpretation needed to analyze the output creates a system of varying results or interpretations of the same genome. Therefore, even if an insurance application directly asks about the results of a genetic test, there may be situations where applicants innocently misinterpret the question or that are sufficiently vague for the insurer to make post-claims arguments of fraud.

B. The ‘Vague’ Question

Insurers are not required to explicitly ask about every single risk factor on an application in order for non-disclosure to be fraudulent.¹⁶⁹

169. See *W. Coast Life Ins. Co. v. Hoar*, 505 F.Supp.2d 734, 744-45 (D. Colo. 2007) (holding that a question on an application asking whether the applicant had ever engaged in scuba diving, auto racing, or “other hazardous avocation or hobby,” was unambiguously requesting

However, based on the contract principle that policy language should be interpreted against the drafter, any ambiguous questions on insurance applications should be interpreted in the light most favorable to the applicant.¹⁷⁰ Thus, insurers should not be able to claim misrepresentation for an individual's answer where there are multiple "rational interpretations" of the question.¹⁷¹ Under this rationale, some courts examine how a "reasonable applicant" would understand the question.¹⁷² For example, the court in *Matlock v. Texas Life Insurance Company* reviewed a motion for summary judgment regarding a rescinded life insurance policy.¹⁷³ The application asked whether the individual had ever "received treatment or care in a hospital... within the past 6 months" and, despite having gone to a hospital for CT scans and blood work, the applicant answered "no."¹⁷⁴ The plaintiff argued that the phrase "treatment or care" was ambiguous and that the applicant could reasonably interpret the question to not include routine check-up procedures such as CT scans and blood work. When examining this issue in the light most favorable to the plaintiff, the court agreed, found the language ambiguous, and denied the motion for summary judgment on this issue.¹⁷⁵ There are many situations where application questions can be ambiguous, especially in light of genetic information. The rest of this section will explore three common types of questions included on life insurance applications that could potentially be interpreted as requesting information about genetic information to highlight ways

information about activities such as heli-skiing); 6 Couch on Insurance § 81:42 (3d. ed., rev. 2012).

170. *See Vella v. Equitable Life Assurance Soc'y of the U.S.*, 887 F. 2d 388, 392 (2d Cir. 1989) (explaining that the questions must be so plain and intelligible that any applicant can readily comprehend them. If any ambiguity exists, the construction will obtain most favorable to the insured) (citations omitted); *see also Fanger v. Manhattan Life Ins. Co. of N.Y.*, 709 N.Y.S.2d 438, 439 (N.Y. App. Div. 2000) (applying this principle to the life insurance context).
171. *See, e.g., Hingham Mut. Fire Ins. Co. v. Mercurio*, 878 N.E.2d 946, 949 (Mass. App. Ct. 2008) ("Where a question on an application lends itself to more than one reasonable interpretation, an honest answer to one of those reasonable interpretations cannot be labeled a misrepresentation."); *see also Gary Schuman, Health and Life Insurance Applications: Their Role in the Claims Review Process*, 62 DEF. COUNS. J. 225, 235 (1995).
172. Six & Thompson, *supra* note 135, at 290.
173. *Matlock v. Tex. Life Ins. Co.*, 404 F.Supp.2d 1307, 1309 (W.D. Okla. 2005).
174. *Id.* at 1310-11.
175. *Id.* at 1312.

that insurers may attempt to argue misrepresentation.

1. Questions about diseases

Have you ever received advice, been diagnosed with, or treated for any disease of the lungs or respiratory system, diabetes, cancer, heart disease, or any other serious illness?

Many insurance applications will include specific questions about past or current incidences of disease. These may be a series of longer questions that enumerate examples of the types of diseases in question or be a broader question such as the fictitious example above. For illustrative purposes, the salient part of the inquiry is that the question refers specifically to disease of a particular kind—not to a predisposition to a disease.

As discussed above, there is no way for a life insurance application to be written in such a way that anticipates and directly inquires about all possible material information. It is common to see questions such as the example above that list several illustrative examples and elicit specific answers to these conditions and others like them. However, the question must “fetch the answer” and the enumerated list must reasonably lead the applicant to understand what additional activities or conditions should be considered in the list.¹⁷⁶ For example, in *Fanger v. Manhattan Life Insurance Company*, the court held that the question asking about whether the applicant had been treated for, “any other disorder, injury, or impairment,” was not clearly eliciting information about mental health conditions since it followed ten questions regarding physical disorders.¹⁷⁷ In contrast, the court in *West Coast Life Insurance Company v. Hoar* found that the application was clearly soliciting information about heli-skiing because “other hazardous avocation or hobby” followed a list of other similar activities such as parachuting, skydiving, and hang gliding.¹⁷⁸

Does a list of illnesses and conditions “fetch the answer” of a genetic predisposition to one of the enumerated illnesses or to another condition? If Timothy, the brother who has been told he has the familial pathogenic Lynch Syndrome mutation, sees the above question on a life insurance application, how might he answer, and how might an insurance company view his answer? Timothy may reasonably interpret this question to be seeking information only

176. *Southard v. Occidental Life Ins. Co. of Cal.*, 142 N.W.2d at 847 (finding that an insurer cannot “inquire about a few illnesses and expect a complete medical history in response”).

177. *Fanger v. Manhattan Life Ins. Co. of N.Y.*, 273 A.D.2d 438, 709 N.Y.S.2d 622 (2000).

178. *W. Coast Life Ins. Co. v. Hoar*, 505 F.Supp.2d 734, 745 (D. Colo. 2007).

about symptoms, diagnosis, and manifested diseases, not about genetic predispositions to disease. Since he has tested positive for the Lynch Syndrome mutation, but has never developed colon cancer or other symptoms, he may reasonably respond ‘no’ to the question. The insurance company, on the other hand, may argue that Timothy has received advice regarding cancer when he visited a genetic counselor and underwent testing to determine his personal risk, that he has been diagnosed with Lynch Syndrome, and that since Timothy is undergoing the medically recommended annual colonoscopies in his 30’s—younger than recommended for the general population—that he is “in treatment” for this condition. In a post-claims underwriting argument, the insurer could try to claim that Timothy fraudulently made a material misrepresentation since he knew of his test results, failed to indicate his predisposition to Lynch Syndrome in response to this question, and that information would have affected their underwriting decision.

This is essentially what occurred in case in Canada in 1990. In *Annick Audet c. L’industrielle-alliance*, the Quebec Superior Court ruled in favor of a life insurance company and found that an insurance applicant had withheld genetic information when, in response to the question, “Do you have any anomalies?” he answered “no.”¹⁷⁹ The applicant had the genetic disease myotonic muscular dystrophy, although he had no symptoms of the condition at the time of the application.¹⁸⁰ Myotonic muscular dystrophy type 1 (*DM1*) is the most common form of myotonic muscular dystrophy, a multisystem degenerative disorder of the muscle system, eye, heart, endocrine system, and central nervous system.¹⁸¹ It is caused by an expansion of a DNA segment within the *DM1* gene. The length of the expansion is correlated with age of onset and severity of symptoms. The applicant presumably interpreted the question to be asking only about current symptoms, not about predispositions to them. The court, however, found this to be an unpersuasive argument and ruled for the insurer.¹⁸²

179. Bartha M. Knoppers & Yann Joly, *Physicians, Genetics and Life Insurance*, 170 CANADIAN MED. ASS’N J. 1421, 1422 (2004). Since this is an international case from Canada, the ruling of the court is not binding precedent and would not be applying the same elements of misrepresentation or fraud. It is, however, an illustration of how applicants, courts, and insurance companies may interpret different questions in the context of genetic information.

180. *Id.*

181. Thomas D. Bird, *Myotonic Dystrophy Type 1*, in *GENEREVIEWS™* (Roberta A. Pagon, et al. eds., 2013).

182. Knoppers & Joly, *supra* note 179, at 1422. This is a Quebec court case in French, so this relies on an English description of the case. The

The potential discrepancy in the interpretations in both the Timothy example and the Quebec case boils down to whether a genetic predisposition is considered a disease or illness, or whether it is instead considered asymptomatic information that does not rise to the level of a disease. Courts have long struggled with how to interpret the numerous words used to describe disease—such as illness, ailment, impairment, infirmity—in the context of insurance.¹⁸³ This debate is likely to continue within the realm of genetic information.¹⁸⁴ There is conflicting precedent in the health insurance realm regarding whether a genetic predisposition absent symptoms is a condition or disease. For example, under GINA and the Health Insurance Portability and Accountability Act (HIPAA), asymptomatic genetic information cannot be considered a pre-existing condition.¹⁸⁵ However, since health insurance predominately covers treatment over prevention, several individuals have successfully argued that a genetic predisposition constitutes disease in order to get insurance coverage for the ‘treatment’ of the condition—such as a prophylactic mastectomy to prevent breast cancer for those with mutations in *BRCA1* or *BRCA2*.¹⁸⁶ Thus, because of the differences between health and life insurance, defining something as a medical condition can have vastly different consequences. Because there are protections in health insurance, defining genetic predispositions as a condition can help to get coverage for treatment, but this same definition can create confusion in life insurance applications. This is an area that provides opportunity for disagreement over

individual had confirmed the diagnosis through genetic testing and through an electromyogram.

183. See, e.g., William L. Prosser, *Innocent Misrepresentation of Health in Insurance Applications*, 28 MINN. L. REV. 141, 144 (1943) (discussing the difficulties of determining what threshold information is required in response to inquiries about diseases, illnesses, ailments, infirmities, or injuries); *White v. Amer. Gen. Life Ins. Co.*, 651 F.Supp.2d 530 (S.D.W.V. 2009) (discussing possible interpretations of mental illness, mental disorder, and “other condition”); *Yarnell v. Transamerica Life Ins. Co.*, 694 F.Supp.2d 857, 869-70 (E.D. Tenn. 2010) (discussing whether alcoholism can be classified as an “illness, injury, or disease”) (citations omitted); *Bennett v. Crown Life Ins. Co.*, 776 N.E.2d 1264, 1269 (Ind. Ct. App. 2002) (analyzing whether slurred speech and hearing loss constituted an “ailment”); *Hyman v. Life Ins. Co. of N. Amer.*, 481 F.2d 441 (5th Cir. 1973) (defining illness as “any appreciable disorder” under Florida law).
184. See, e.g., Anya E.R. Prince & Benjamin E. Berkman, *When Does an Illness Begin: Genetic Discrimination and Disease Manifestation*, 40 J.L. MED. & ETHICS 655 (2012).
185. 45 C.F.R. § 148.180(d) (2009).
186. *Katskee v. Blue Cross Blue Shield of Neb.*, 515 N.W.2d 645 (Neb. 1994).

interpretation and thus leaves well-meaning applicants at risk for claims of misrepresentation.

2. Licensed Medical Professionals

Have you consulted with or been treated by a physician or licensed medical practitioner in the past year?

In order to uncover information about previously undisclosed or unasked about conditions, life insurance applications often elicit general information as to whether an applicant has seen a physician or licensed medical professional.¹⁸⁷ This type of question raises potential issues of ambiguity if, like Alfred and Timothy, the applicant has consulted a genetic counselor, and has not spoken to a physician about the genetic condition. There may be various reasonable interpretations of appropriate answers when an applicant has received treatment or advice from medical specialists, not physicians.¹⁸⁸ For example, the Supreme Court of Michigan found that an insurance applicant did not make a misrepresentation when he failed to disclose visits to a chiropractor because a chiropractor was not considered a physician under Michigan law and the application language only included physicians.¹⁸⁹

Depending on how narrowly or broadly a question about medical professionals is worded, there may be ambiguity as to whether the question was seeking information regarding a consultation with a genetic counselor. For example, if the question only asks about physicians, an applicant could reasonably omit information about consultations with a genetic counselor. In contrast, if a question asks more broadly about visits to medical professionals, this could more reasonably be interpreted as inclusive of genetics counselors.

An interesting context could arise if a question asked specifically about “licensed medical professionals.” Currently, only 18 states have licensing statutes for genetic counseling.¹⁹⁰ In the other states, there is no licensing system for genetic counselors, or a system is in the

187. See, e.g., Klein, *supra* note 49, at 487.

188. See, e.g., Fanger v. Manhattan Life Ins. Co. of N.Y., 273 A.D.2d 438, 438-39, 709 N.Y.S.2d 622, 623-24 (2000) (highlighting complications of whether a visit to a psychiatrist constituted a “health examination”); McCalla v. Royal Maccabees Life Ins., 14 F. App’x 840, 842, 845 (9th Cir. 2001) (noting that the applicant did not disclose numerous appointments for back treatment because he did not think that a chiropractor was a “real doctor”).

189. N.Y. Life Ins. Co. v. Modzelewski, 267 Mich. 293, 300 (1934).

190. *States Issuing Licenses for Genetic Counselors*, NAT’L SOC. OF GENETIC COUNSELORS, <http://nsgc.org/p/cm/ld/fid=19> (last updated February 24, 2016).

process of being set up. Therefore, questions about licensed professionals, or even medical professionals more broadly, could raise ambiguity given the variable state licensing rules.

3. Catch-all Good Health Questions

Are you in good health?

In an effort to streamline life insurance applications, some insurers ask few specific questions eliciting medical information, but instead ask a general ‘catch-all’ question inquiring whether the individual is in good or sound health. Predominately, courts have interpreted questions about ‘good health’ as calling for a subjective opinion on health, not a professional medical opinion.¹⁹¹ Due to the overwhelming, and somewhat ridiculous, interpretations that are possible if questions of good health are interpreted literally, courts must give applicants leeway in responding to these broad questions: “Good health” does not mean perfect health.¹⁹² For example, courts in Texas have defined good health as “a state of health free from any disease or condition that affects the general soundness or healthfulness of the system seriously, that is, that the insured be not afflicted with a disease or condition of a substantial nature which affects the insured’s general health or which materially increases the risk to be assumed by the insurer.”¹⁹³

Thus, an inquiry into whether an individual misrepresented their health in response to a ‘good health’ question should not explore the presence of a disease, but rather how the applicant’s daily life and activities may have been affected by any symptoms or presence of disease. For example, an individual can have conditions as serious as diabetes or hypertension, but still be considered in good health depending upon how the diseases affect the individual.¹⁹⁴

191. Schuman, *supra* note 171, at 235.

192. See Prosser, *supra* note 183, at 144-45 (explaining the problems of a non-subjective standard of interpretation because “[t]aken quite literally, and with the strictest possible interpretation, the applicant’s assertions of good health in reply to such an array of questions would be falsified, and the policy for which he paid his money avoided, if at the time or for some years past he had had a headache, a toothache, a cold, a boil, a cut on his finger, or an attack of indigestion superimposed on a supper of lobster, dill pickles, rye whiskey and ice cream.”).

193. Amer. Nat. Ins. Co. v. Navarrete, 758 S.W.2d 805, 807 (Tex. App. 1988).

194. *Simonson v. Michigan Life Ins. Co.*, 194 N.W.2d 446, 449 (Mich. Ct. App. 1971) (“Many people can have diabetes and even hypertension and still be considered to be in ‘sound health’. Obviously, however, a man who has suffered a severe stroke will be much more affected by these conditions than the average person otherwise healthy.”).

Given that courts have interpreted questions about good health subjectively and based upon how the condition affects the individual, individuals with genetic predispositions can likely answer that they are in good health—absent symptoms from a different disease or condition. For example, it would be reasonable for Alfred, Timothy, and Susan to subjectively believe that they are in good health, since all are currently asymptomatic and only undergoing genetic testing to determine their individual risk. This could be true even if one finds a polyp during a routine colonoscopy. Subjectively, a person can reasonably consider himself in good health even if his increased colonoscopy screenings occasionally find a polyp that is effectively removed during the procedure. Although past court precedent indicates that individuals with genetic predispositions are unlikely to have made a misrepresentation by indicating that they are in good health, this catch-all question on the application does provide an insurer with the opportunity to claim grounds for rescission.

4. Ambiguous Questions and Intent

Vague or ambiguous questions on applications create a difficult situation requiring reconciliation of two standards: 1) the requirement to interpret questions in the light most favorable to the applicant, and 2) the general holding that individuals with knowledge of an omitted condition are more likely to have committed fraud. In many instances, an applicant may have knowledge of a genetic test result and indeed may even be actively thinking about whether a question is asking about it on the application—in part due to the hype of genetic information in life insurance. For example, if an insurer attempts rescission of a policy for Alfred, Timothy, or Susan after it is discovered that they have a family history of or have tested positive for a Lynch Syndrome mutation, a court may focus on the likely intent of the siblings since they had just learned of a possible familial mutation for Lynch Syndrome and, in Alfred's case, had received a recommendation to secure insurance prior to testing.

Some may argue that in order to avoid misrepresentation or fraud, the applicant should include genetic information in response to every question that might be eliciting such information. After all, if the information ends up not being material, the insurance company won't use it, and if the information ends up being material, the individual has just avoided fraud and post-claims rescission. This argument, however, is problematic for two reasons. First, we do not hold other medical or socio-behavioral factors to this same standard. Individuals are not required to provide information beyond what is asked about in the application: There should be no reason to require individuals with genetic predispositions to be in a different situation. Second, this places the entire burden on individuals and the entire benefit on life insurers in a system that is already skewed towards

insurers. Insurers are in the best position to write questions that are unambiguous and that seek material information. Otherwise, since cases could potentially boil down to an individual's state of mind when applying—a difficult standard to both prove and disprove—well-meaning individuals may be held to have committed fraud based on hindsight.

X. CONCLUSION

Many commentators and insurance representatives stress that life insurance companies need to have all the information about an applicant's health that the applicant has: asymmetry in information, they argue, will impact the business of insurance with dire consequences. However, in the case of genetic information, insurance companies are not broadly asking about such information in life insurance applications. Life insurance companies desire to streamline their application process to attract customers and to save money from lengthy application procedures. Through this process, insurers fail to ask questions about genetic information, even though the answers to these questions could change their ultimate insurance decision. This potentially creates a problematic situation where an application does not explicitly ask about genetic information, yet an applicant's failure to disclose such information legally constitutes fraud or misrepresentation.

Some have claimed that failure to disclose genetic information on an insurance application may constitute fraud or misrepresentation. However, if an insurance application does not ask for certain information, an applicant is under no duty to disclose such information. There is no reason why genetic information should be treated any differently. There will be those that commit fraud, whether it is someone purposefully hiding something from the company or a desperate individual with a terminal genetic condition trying to secure financial stability for his family. However, in the current legal landscape, given the complexities of genetic information and test results, even those individuals who are honestly trying to apply for insurance without fraudulent intent may be exposed to policy rescission, even years after the policy has been approved. For these reasons, life insurers should include clear application questions regarding genetic testing, or be foreclosed from using failure to disclose such testing as grounds for rescission. Such clear rules should be in place in order for applicants to know how to answer questions, to better understand how genetic information is being used in the underwriting process, and to provide information to the many individuals like Susan, Timothy, and Alfred who struggle to decide how to prioritize access to life insurance with the decision to undergo testing to determine future risk of disease.