

personal health-related data for insurance purposes, including data resulting from genetic tests and of the EGE Opinion "Ethical aspects of genetic testing in the workplace" could be good starting points for future legislative initiatives in Cyprus.

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Czech Report on Genetic Testing for Employment and Insurance

Filip Křepelka

Abstract Genetic testing for both medical and forensic purposes has become routine in Czechia, as in other developed countries. However, its use is sporadic in the fields of employment and insurance, likely due in part to the state of Czech political and socio-economic development as well as the shortcomings of post-socialist law. Although the Council of Europe and the European Union stipulate general principles, domestic legal discourse about the particularities of the regulation of genetic testing is in its infancy. Discrimination based on individual genetic makeup is generally illicit in the employment context. Despite the fact that covert testing without informed consent is certainly punishable, one might expect it would occur in countries with perfunctory implementation of laws. Therefore, the absence of genetic testing in the workplace in Czechia is better explained by its impracticality, although rare exceptions exist that seek to protect healthcare practitioners handling dangerous substances. Genetic testing and consideration of its results do play a role in life insurance. For instance, one insurer's contract terms exclude women with a genetically identified risk of breast cancer. However, another phenomenon is important in a country with an underdeveloped insurance market: instead of conducting controversial and likely illicit genetic testing, insurers simply exclude rare monogenetic diseases. Finally, Czechia has universal public health insurance, but we can expect that genetic makeup could be considered in the allocation of treatment and its public financing in the future.

1 Introduction

This paper is a Czech report for the section "Genetic Testing for Insurance and Employment," initiated and organized by Professors Lara Khoury and Adelle Blackett (McGill University, Montreal, Canada) at the 20th General Congress of

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L. Khoury et al. (eds.), *Genetic Testing and the Governance of Risk in the Contemporary Economy*, Ius Comparatum - Global Studies in Comparative Law 34, https://doi.org/10.1007/978-3-030-43699-5_6

the International Academy of Comparative Law held on 24 July 2018 at Kyushu University in Fukuoka, Japan. The paper first describes the legal framework surrounding genetic testing for purposes other than employment and insurance. Genetic tests have been crafted primarily for these other purposes, and their application in the fields of employment and insurance remains marginal in Czechia, leaving the legal regulation of genetic tests in employment and insurance *terra incognita* in this country.¹ It is thus important to first explore the general framework related to genetic tests.

There is no systematic translation and publication of Czech laws into English, and translations differ. Therefore, this report refers to laws, legal instruments, institutions, and other phenomena related to Czechia in the Czech language to facilitate their identification.²

The paper will consider the standards of the Council of Europe and the European Union, which together establish the relevant international legal framework. Because rapporteurs from other European countries also discuss this framework, this text will focus on its implementation in Czechia.

Czechia qualifies as a developed country. However, it is consistently behind the top 15–20 countries in various rankings.³ Namely, perfunctory governance must be considered; post-socialist states are frequently inefficient and corrupt, and their laws suffer from lability, formalism, oversimplification, and unpredictability. Unsurprisingly, cynicism and nihilism is a frequent attitude towards any governance.⁴

While genetic testing is a modern diagnostic technology, it is not so complex and expensive to be unavailable in Czechia. Indeed, Czech laboratories serve a domestic clientele and also offer their services to foreigners. Their prices are competitive, thanks to lower wages. Nevertheless, the situation sketched above could explain societal and political attitudes to genetic tests in Czechia, which differ from attitudes in the richest and most stabilized countries.

¹In accordance with official policy, this text uses the short country name Czechia (*Česko*). Readers shall bear in mind that the official long name, the Czech Republic (*Česká republika*), is used in many other texts. See the Ministry of Foreign Affairs' updated document, "How to Use the Short Country Name 'Czechia'" at https://www.mzv.cz/jnp/en/foreign_relations/public_diplomacy/digital_diplomacy/how_to_use_the_short_country_name.html.

²The Collection of Laws (*Sbírka zákonů*, abbreviated *Sb.*) is an official publication, available also on the Internet (www.sbirka.cz). Consolidated versions of statutes can be found, inter alia, at www.zakonyprolidi.cz. Nevertheless, legal practitioners and scholars have access to subscription-based databases (ASPI, Codexis, EPIJ, LexGalaxy etc.) with additional information.

³As GDP per Capita, GDP per Capita—Parity Purchasing Power, Human Development Index, Corruption Perception Index, Global Competitiveness Index, Democracy Index, Worldwide Governance Indicators etc. Certainly, cautiousness is necessary. Any indicator has its strengths and shortcomings. Nevertheless, considered together, these indicators indicate the situation of a country in comparative perspective.

⁴International readers will find a good overview of law in post-socialist countries in Kischel (2015), pp. 571–594. The author, however, highlights significant differences among post-socialist countries.

2 Equality

2.1 Several Legal Instruments Stipulating Equality

Addressing genetic discrimination in the field of employment and insurance requires consideration of several provisions protecting equality.

On a national level, both the Constitution of the Czech Republic⁵ and the Charter of Fundamental Rights and Freedoms, as the national catalogue of fundamental rights,⁶ guarantee equality.

The European Convention for the Protection of Human Rights and Fundamental Freedoms prohibits discrimination that would infringe the fundamental rights and freedoms enshrined within it. The 12th Additional Protocol to the Convention, adopted in 2000, prohibits discrimination based on listed criteria in other fields than those covered by fundamental rights established by the Convention. Czechia signed the Additional Protocol in 2000 but has not yet ratified it.

The Convention on Human Rights and Biomedicine, adopted under the auspices of the Council of Europe in 1997 in Oviedo (the Oviedo Convention),⁷ specifies fundamental rights in the field of medicine. This Convention is not a pan-European standard, since many large countries are not signatories.⁸ Czechia has ratified it, though there has since been debate about whether this was unduly enthusiastic. Czech laws were not assessed or adjusted for compliance before ratification. The implementation of the Oviedo Convention depended on the principle of direct effect and the primacy of duly-ratified international conventions in accordance with the Czech Constitution.⁹

The Oviedo Convention prohibits discrimination against a person on the ground of his/her genetic heritage,¹⁰ and reserves predictive genetic tests for health and

⁵*Ústava České republiky*, published as 1/1993 Sb, Article 1.

⁶*Listina základních práv a svobod*, adopted as Czechoslovak federal constitutional law 23/1991 Sb and republished in 2/1993 Sb. for the Czech Republic, Art 1. An English translation is available at https://www.usoud.cz/fileadmin/user_upload/ustavni_soud_www/Pravni_uprava/AJ/Listina_English_version.pdf.

⁷Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, adopted 4 April 1997, entered into force since 1 December 1999, CETS no 164.

⁸See Chart of signatures and ratifications at <https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/164/signatures>.

⁹Article 10 of the Constitution of the Czech Republic (cited supra).

¹⁰Article 11 of the Constitution for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, adopted 4 April 1997, entered into force since 1 December 1999, CETS no 164.

research uses alone.¹¹ Drafters of the Convention realized the importance and potential of this emerging technology and feared its misuse.

The European member states and the European Union have developed their anti-discrimination policies through several directives. Directive 2000/78/EC¹² requires suppression of discrimination based on disability, while recognizing the challenges faced by employers of disabled employees. Reasonable accommodation is required in the employment context. Directive 2000/43/EC prohibits racial discrimination in the context of access to goods and services.¹³ The extent to which these directives and their implementation in national law could be applied to regulate genetic discrimination in employment and insurance is open to debate. Czechia reluctantly implemented these directives with the Law on Equal Treatment in 2009.¹⁴

The principle of equality is also enshrined in the Treaty on the Functioning of the European Union and in the Charter of Fundamental Rights of the European Union.¹⁵ The Charter explicitly mentions equality *vis-à-vis* genetics.¹⁶ Global human rights conventions such as the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights provide for equality in their respective fields of application.¹⁷ In addition, the Convention on the Rights of Persons with Disabilities addresses specifically equality for disabled people.¹⁸

2.2 Effectiveness of Constitutional, International and Supranational Laws

Combating genetic discrimination in the fields of employment and insurance might take the form of an intervention by the high courts of the Czech Republic, the

¹¹ Article 12 of the Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, adopted 4 April 1997, entered into force since 1 December 1999, CETS no 164.

¹² Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation, OJ L 303/16, 2 December 2000.

¹³ Council Directive 2000/43/EC of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin, OJ L 180/22, 19 July 2000.

¹⁴ *Zákon č 198/2009 Sb, o rovném zacházení*.

¹⁵ Charter of Fundamental Rights of the European Union, OJ C 326/391, 26 October 2012.

¹⁶ Article 21(1) of the Charter provides that "[a]ny discrimination based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited" (emphasis added).

¹⁷ Both covenants adopted by the General Assembly of the United Nations Organisation 16 December 1966, Article 26 of the International Covenant of Civil and Political Rights and, among others, Art 2 para 2 and Article 12 of the International Covenant of Economic, Social and Cultural Rights.

¹⁸ Adopted by the General Assembly of the United Nations Organisation 13 December 2016, Art 8 specifies the principle of equality.

Council of Europe and the European Union. Therefore, it is pertinent to summarize their roles.

The Constitutional Court enforces the Constitution and the Charter of Fundamental Rights and Freedoms. International conventions stipulating fundamental rights and freedoms also have constitutional rank.¹⁹ Czechia has a strong constitutional judiciary: both individual complaints and applications made by qualified entities (e.g., specified numbers of deputies, senators, regions, or ombudsmen) can result in the striking down of unconstitutional statutes or their provisions.

The European Court for Human Rights accepts individual complaints once all national remedies have been exhausted and awards compensation if a breach is identified. Its case law enjoys significant authority within the Council of Europe's member states.

Unlike the European Human Rights Convention, the Oviedo Convention lacks effective enforcement mechanisms. Nevertheless, there is no doubt that it belongs to the class of international conventions enjoying direct effect and primacy in Czechia. Czech authorities are expected to apply it directly and set aside or reinterpret Czech laws in accordance with the Convention. Once ratified, the Protocol mentioned above will enjoy the same status.

Physicians, bioethicists, human rights activists, and politicians tend to regard the Oviedo Convention and its protocols as the realisation of key principles of biomedical ethics even beyond legality.

Founding treaties of the European Union and its regulations enjoy direct effect and primacy as well. Directives are to be incorporated by member states in a timely manner into their national laws.²⁰ To streamline the interpretation of the law of the European Union applied by its member states, the Court of Justice of the European Union delivers preliminary rulings, answering questions referred to it by a national court.²¹

Czechia's Public Defender of Rights (Ombudsman), with the assistance of his or her Office,²² contributes to the improvement of administration and to the implementation of anti-discrimination policies by providing opinions on complaints and general control.

¹⁹ Based on interpretation of Art 10 of the Constitution of the Czech Republic by the Constitutional Court.

²⁰ Article 289 of the Consolidated version of the Treaty on the Functioning of the European Union, OJ C 326/47, 26 October 2012.

²¹ Article 267 of the Consolidated version of the Treaty on the Functioning of the European Union, OJ C 326/47, 26 October 2012.

²² *Veřejný ochránce práv, and Kancelář veřejného ochránce práv*, see www.ochrance.cz.

2.3 Reluctance Regarding Anti-discrimination Policies in Post-socialist Countries

The prior legacy of inequality fuelled the socialist and communist ideologies of the nineteenth and twentieth centuries. Accordingly, socialist regimes in Central and Eastern Europe placed high value on equality. Egalitarianism was omnipresent.

Unsurprisingly, the socialist regimes' transition to liberal democracy and a market economy was marked by a preference for liberties. Even today, many Czechs have doubts or reject anti-discrimination policies as new leftism or neo-Marxism. The perfunctory implementation of international and supranational laws, and the frequent shortcomings in the application of national laws in Czechia, reflect low societal support for their underlying principles.

Czechia delayed the implementation of EU anti-discrimination directives with the Law on Equal Treatment.²³ The prominent hostility of the then right-wing majority to non-discrimination principles resulted in an absence of debate on details, including genetic discrimination.

We could subsume defective genetic makeup under disability.²⁴ Genetic defects result in debilitating illnesses or premature death. At least, there is risk of it. Certainly, the commentaries of the Law on Equal Treatment are silent on the issue.²⁵ Nevertheless, this silence reveals absent cases and weak debate on this issue in Czechia.

The movie *Gattaca* (1997)²⁶ provides a picture of a dystopian future where ubiquitous genetic tests divide individuals in "valid" and "invalid" groups. Genetic defects thus establish individualised and permanent stigma comparable to the collective stigma associated by persons deemed to be members of an "inferior" race. Racial discrimination is not only prohibited by international, European and national laws, but is also generally regarded as heinous attitude. Therefore, eventual summing of genetic makeup under race or likening them would render discrimination based on genetic defect more unacceptable.

²³Zákon č 198/2009 Sb, o rovném zacházení.

²⁴See definition of (health) disability (*zdravotní postižení*) in paragraph 5(6) of the Law on Equal Treatment (Zákon č 198/2009 Sb, o rovném zacházení).

²⁵Kvasnicová et al. (2015) and Boučková et al. (2010).

²⁶Directed by Andrew Nicol, for the synopsis and the cast see <https://www.imdb.com/title/tt0119177/>.

3 Genetic Testing in Czechia

3.1 The Reality of Genetic Testing

Genetic testing for medical purposes—aimed primarily at the confirmation of an existing disease rather than prediction—is routine. Health insurance funds finance many tests so long as they are deemed necessary both by a physician and by their insurance adjusters, who are charged with containing and managing the funds' expenditures.

Czechia's population does not have an elevated prevalence of any single-gene disease, nor has any mass research project emerged in Czechia, similar to Iceland's deCODE genetics, Inc. research project.²⁷ Unsurprisingly, therefore, genetics and its ethical and legal aspects have attracted little attention. Most Czechs have not undergone any genetic testing; there are no known surveys on Czech attitudes toward the practice. Therefore, I can only speculate as to whether Czechs would perceive genetic testing as extraordinary.

One notable exception to the rarity of testing in Czechia exists, however. Pregnant women routinely undergo prenatal screening, which is financed by health insurance funds. Abortion is legal on request until the 12th week of gestation²⁸ and is permitted until the 24th week if the foetus is malformed or at risk of a genetic disease. The prospect of caring for such babies justifies abortion even for the women longing for a child. Pregnant women face societal pressure to undergo prenatal screenings and, thereafter, abortions if the results indicate any risk.

Paternity disputes became frequent during the socialist period. Contrary to methods used in the past, genetic testing enables the confirmation or refutation of paternity. Preliminary tests have proliferated as a result of lower prices and the ease of collection of samples. Genetic testing can also settle other kinship disputes, such as the swapping of babies after delivery, as was the case at the *Třebíč* hospital.²⁹

The Czech Republic Police (*Policie České Republiky*) collects samples and has established a bank of genetic profiles for the investigation of serious crimes. Authorities resort to genetic testing to an extent comparable to other countries. Genetic analysis of samples collected at crime scenes has become an important method of obtaining evidence, but as in other countries, initial optimism has faded following several tricky cases such as *the Phantom of Heilbronn*.³⁰

²⁷For an overview, see Winičkoff (2006).

²⁸See the Law on Abortion (*zákon č 80/1986 Sb, o umělem přerušent těhotenství*), paras 4–5.

²⁹See Lazarová (2007). Many newspapers abroad reported on this case.

³⁰See Ferraci-Porri (2009). There is also rich coverage of this case in newspapers and on the Internet. Investigating various crimes, police authorities in Germany and adjacent countries have collected at crime scenes identical genetic samples. There were considerable doubts that one particular female could commit all these crimes. Extensive investigation revealed that sticks for collection of samples were contaminated when manufactured. Phantom criminal was a worker of manufacturer. Sterility requirements were found insufficient.

3.2 Specific Legal Framework for Genetic Testing

Since 2012, the “Genetic examinations” chapter of the Law on Specific Medical Services and Conditions of their Provision has set out a particular legal framework for genetic testing in Czechia.³¹ Compared to laws in other countries, such as Germany,³² the relevant provisions are succinct. However, the more general rules set out in the Law on Medical Services³³ are also applicable. For example, provisions addressing children, minors, and incompetent adults as well as emergency situations apply *mutatis mutandis*.

There were no specific rules regulating genetic testing before the recodification of medical law in the two above-cited laws in 2012. Nevertheless, providers of genetic testing developed appropriate standards without specific legal framework.

It shall be noted here that Czech health care needed decades to recognize patients’ autonomy and competence. The Oviedo Convention, agreed under the auspices of the Council of Europe, specified the fundamental rights for medicine and contributed significantly to the reinterpretation of the Law on Care for Health of the Nation³⁴ which, despite frequent amendments, mirrored collectivism and paternalism of the period of socialism (1948–1989).

The provisions on “Genetic examinations” cited above focus on the licencing of providers of genetic testing. Certified genetic medical service providers must engage specialized physicians and other experts to guarantee, among other things, the correct interpretation of genetic testing results.

The “Genetic examinations” chapter expressly applies only to genetic testing for medical purposes. Testing conducted to determine paternity and to identify suspects in criminal investigations therefore fall outside its scope. “Medical purposes” are defined as the determination of a predisposition to hereditary diseases, among other things.³⁵ Whether the law applies to employers’ and insurers’ use of genetic testing remains unclear.

The provisions cited above require the patient’s written consent for genetic testing to be carried out. Consent must be based on detailed information about the substance and consequences of this testing. However, geneticists are ill-equipped to adequately discuss with patients the social consequences of testing, which can vary widely according to the patient’s situation. Similarly, they can hardly explain the legal consequences of genetic testing if the framework remains unclear in many aspects.

The “Genetic examinations” chapter contains the following terse anti-discrimination provision: “[r]esults of genetic tests shall not be used for any

discrimination of [the] patient or genetically relative persons.” It is clear that this provision does not apply to unborn children. The abortion of foetuses whose genetic makeup points to genetic disease is legal, and Czech society accepts it. Nevertheless, the following pages will reveal several borderline situations, in which the application of this provision is debatable.

3.3 Emerging Europeanisation of Rules for Genetic Testing

The Oviedo Convention envisages the creation of protocols for particular issues. The Council of Europe adopted the Additional Protocol concerning Genetic Testing for Health Purposes³⁶ in 2008. It sets principal rules for the use of genetic testing, recovery of samples, quality of genetic services, clinical utility, individualised supervision, information and genetic counselling, persons incompetent to consent, informed consent with testing, gene tests on uncontactable persons and the deceased, respect for privacy, genetic screening, and public information. Unsurprisingly, the Protocol reiterates the principle of non-discrimination and non-stigmatisation in genetics.³⁷

According to unofficial information, the Czech government signed the Protocol with considerable delay in 2017, during its presidency of the Council of Europe, as a gesture of a country frequently reluctant to accept international obligations. Generally, the Protocol took a decade to enter into force, as many countries were reluctant to expand their international obligations. Ultimately, the Protocol’s entry into force was triggered by Portugal’s ratification.³⁸ Czechia’s ratification process was completed several months later.³⁹

One side effect of multi-track European integration has been the prevalence of overlapping law-making in particular areas. The European Union has entered the field of genetic testing, with a regulation on *in vitro* diagnostic devices that contains a

³⁶ Additional Protocol to the Convention on Human Rights and Biomedicine concerning Genetic Testing for Health Purposes, adopted 27 November 2008, entered into force 1 July 2018, CEFS no 203. For early commentary, see Lwoff (2009).

³⁷ Additional Protocol to the Convention on Human Rights and Biomedicine concerning Genetic Testing for Health Purposes, adopted 27 November 2008, entered into force 1 July 2018, CEFS no 203, art 4.

³⁸ See https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/203/signatures?p_auth=mLcQSKgn.

³⁹ After the approval by the Chamber of Deputies and the Senate, the ratification by the president and notification to the CoE, the Additional Protocol entered into force for Czechia on 1 September 2019. Official translation of the Additional Protocol into Czech language is available in *Sdělení ministerstva zahraničních věcí č 41/2019 Sb m s o sjednání Dodatkového protokolu o genetickém testování pro zdravotní účely* (Notification of the Ministry of Foreign Affairs on Conclusion of the Additional Protocol).

³¹ *Zákon č 373/2011 Sb, o specifických zdravotních službách*, paras 28–30.

³² *Gesetz über genetische Untersuchungen bei Menschen (Gendiagnostikgesetz)* 31 July 2009, published in (2009) BGBl I S 2529. For the German text, see <https://www.gesetze-im-internet.de/genDG/index.html>.

³³ *Zákon č 372/2011 Sb, o zdravotních službách a podmínkách jejich poskytování*.

³⁴ *Zákon č 20/1966 Sb, o péči o zdravotní lidu*.

³⁵ *Zákon č 373/2011 Sb, o specifických zdravotních službách*, para 28(9) a.3.

specific provision on genetic testing.⁴⁰ This regulation is scheduled to enter into force in 2022.

The provision has an interesting legislative history. The European Parliament inserted it on the authority of the so-called Passau University Opinion,⁴¹ which claimed that the European Union is entitled to legislate on medical practice related to medical devices. Providers of direct-to-consumer genetic tests questioned the European Union's competency to make laws governing the relations between physician, provider, and patient.⁴² In the end, the provision has stipulated that persons tested shall be "provided with relevant information on the nature, the significance and the implications of the genetic test." However, the member states can adopt adequate measures to enhance patients' protection.⁴³

3.4 Gene Theft

Gene theft is the collection of genetic samples without an individual's knowledge or consent for the purpose—aside from human cloning—of investigating his/her genetic profile. The new Penal Code⁴⁴ introduced, among other specific crimes, the illicit collection of organs and tissues from human body,⁴⁵ the illicit manipulation with personal data about other individuals collected within the exercise of government function⁴⁶ and breach of confidentiality.⁴⁷ We need to consider their applicability for gene testing. The principle *nulla poena sine lege* is an obstacle for an extensive interpretation of these provisions, that would make them hardly applicable to gene theft. Doctrinal writings on this recently adopted Penal Code have not addressed its application to gene theft.

Nevertheless, administrative sanctions are applicable. According to the specific provisions on genetic testing mentioned above, healthcare providers or laboratories communicating results to third parties without the patient's consent can be fined up to CZK 500,000⁴⁸ (approximately EUR 20,000). Serious non-compliance with

⁴⁰Regulation (EU) 2017/746 of the European Parliament and the Council of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/2271/EU, OJ L 117/176, 5 May 2017.

⁴¹See Schweitzer and Hans-Georg (2013).

⁴²See Hitchcock and Vollebregt (2014).

⁴³Regulation (EU) 2017/746 of the European Parliament and the Council of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/2271/EU, OJ L 117/176, 5 May 2017, Art. 4 para 1, 2 and 4.

⁴⁴Zákon č. 40/2009 Sb., trestní zákoník.

⁴⁵Ibid., para 164.

⁴⁶Ibid., para 180.

⁴⁷Ibid., para 180 with relation to definition of confidentiality in para 124.

⁴⁸Zákon č. 373/2011 Sb., o specifických zdravotních službách, paras 90(1)(f) and (7)(b).

requirements of administrative law can result also in the withdrawal of authorisations by supervisory authorities.

Moreover, courts would likely qualify genetic testing conducted without an individual's consent as an infringement of his/her privacy and bodily integrity and award compensation according to provisions of the new Civil Code.⁴⁹

However, the ease with which genetic samples can be collected renders the above restrictions difficult to enforce. Laboratories offer to analyse anonymous samples on their web pages. In paternity cases, samples may be obtained without the consent of the mother or child, whose interests are frequently at odds with those of the suspected father. One provider advertises that its administration of genetic testing of a sample in one case enabled identification of the writer of anonymous letters harassing a business.

In practice, the state does not penalize these uses of genetic testing. I expect that many would criticize any attempts at enforcement as creating an incentive for "offshore testing," thereby undermining business for domestic laboratories. There is an understanding that Czech laboratories test samples from countries with restrictive laws. It is easy to send samples across uncontrolled borders within the European Union.

Unsurprisingly, therefore, we do not know the incidence of genetic testing conducted without the person or proxy's consent. No surveys have been conducted or estimates constructed concerning the scale of this phenomenon.

Nevertheless, coercion used to obtain samples for genetic testing would surely be regarded as an illicit interference into an individual's intimate sphere, opening the door to a claim for pecuniary damages. Criminal prosecution can follow if subsumed under the crime of restriction of individual freedom.⁵⁰

Genetic testing aimed at the investigation of a serious crime was questioned as an interference to bodily integrity lacking clear statutory framework establishing competence for the Police. Doubts about the legality of the practice vanished with the introduction of non-invasive methods of sample collection using, for instance, saliva, skin, or hair fragments, instead of blood. Nevertheless, the legal framework that governs the operation of the police biobank containing samples and genetic profiles remains perfunctory, which may potentially undermine the resort to genetic testing in criminal prosecutions.⁵¹

⁴⁹Zákon č. 89/2012 Sb., občanský zákoník, paras 84–90, 91–103, 111–112 and 2956–2957.

⁵⁰Para 174 of the Penal Code.

⁵¹See Kožina (2018), pp. 59–101.

3.5 Genetic Privacy and Data

Medical practitioners and healthcare providers must respect patient confidentiality. Czechia has detailed rules on keeping and protecting medical records.⁵² In addition, the Law on Protection of Personal Data⁵³ implementing the EU Data Protection Directive⁵⁴ has been in force in Czechia since 2001, i.e., since before its accession to the European Union in 2004. Since 2018, the General Data Protection Regulation (the “Regulation”) has strengthened and homogenised data protection in the European Union.⁵⁵ Information about an individual’s genetic makeup resulting from genetic testing⁵⁶ undoubtedly falls within the category of sensitive information addressed explicitly by the Regulation.⁵⁷ As mentioned below, specific rules for genetic testing confirm that genetic information reveals individuals’ perpetual and unchangeable features. The Regulation’s impact on genetic testing is the subject of considerable debate in Europe.⁵⁸

3.6 Genetic Exceptionalism in the Law

Specific provisions, chapters—entire laws in other European countries—and conventions indicate lawmakers’ recognition of an individual’s genetic makeup as a specific, permanent, and unalterable individual characteristic. There is sufficient evidence for “genetic exceptionalism”⁵⁹ both in the laws of Czechia and elsewhere, cemented with supranational law of the European Union and pan-European international law of the Council of Europe.

⁵² *Zákon č 372/2011 Sb, o zdravotních službách a podmínkách jejich poskytování*, paras 53–69b.

⁵³ *Zákon č 101/2000 Sb, o ochraně osobních údajů*.

⁵⁴ Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, OJ L 281/31, 23 November 1995.

⁵⁵ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and the free movement of such data, and repealing Directive 95/46/EC, OJ L 119/1, 4 May 2016. Nevertheless, the member states are entitled to adopt detailed rules specifying the extent and limits of personal data protection.

⁵⁶ For a detailed analysis of global and European frameworks in the field of human genetics and debate about it, see Taylor (2012). For an analysis of—among others—the emerging Czech framework, see Antoš (2014).

⁵⁷ Recital 34 and Article 4 (13) of the Regulation provides a definition.

⁵⁸ For a brief overview, see Formeister (2017).

⁵⁹ Evans and Burke (2008).

3.7 Little Attention to Genetic Discrimination in Czechia and in Europe

Despite the specific framework outlined above, there is no jurisprudence or administrative practice relating to alleged discrimination resulting from genetic testing in Czechia. Even the Ombudsman and her office, which combat discrimination with an activist style that largely lacks broad societal support, address the issue only sporadically.⁶⁰ A consultation with an official in the office’s anti-discrimination department revealed that the office had received no complaints alleging genetic discrimination until 2018.⁶¹

Notable Czech geneticists, among which Renata Gaillyová,⁶² recognize the psychosocial aspects of genetic testing and promote training of general practitioners and experts in the field of genetic counselling. Few Czech physicians, biologists, bioethicists, psychologists, or sociologists focus on the ethical aspects of genetics, though the expertise of Věra Franková are a notable exception deserving attention.⁶³ Nonetheless, no real public debate about genetic testing has emerged. The absence of disputes keeps genetic testing outside the awareness of both legal practitioners and scholars.

Unsurprisingly under such conditions, the “Genetic testing” chapter of the Law on Specific Medical Services emulates the standards developed in other countries. The Protocol provides for a more elaborate framework than the existing chapter. Simultaneous application of both frameworks allows for the clarification of peculiarities.

Genetic discrimination is not a particularly salient issue in Europe either.⁶⁴ There are no landmark judgments from either the European Court of Justice or the European Court for Human Rights.

Nevertheless, there are elaborate national frameworks in other European countries, such as the Gendiagnostikgesetz in Germany, which could provide inspiration for Czechia.⁶⁵

⁶⁰ One document only briefly mentions genetic discrimination as a threat.

⁶¹ Interview conducted on 20 June 2017 (on file with the author).

⁶² Chief of the department for genetic medicine in the Faculty Hospital in Brno, the biggest of four hospitals attached to the Masaryk University.

⁶³ Lecturer at the Institute of Medical Humanities, 1st Faculty of Medicine, the Charles University, Prague, among others, see Franková (2009).

⁶⁴ Three hundred-page Handbook on European non-discrimination law—2018 edition prepared by the European Union Agency for Fundamental Rights and Council of Europe and the European Court for Human Rights (<http://fra.europa.eu/en/publication/2018/handbook-european-law-non-discrimination>) mentions only provisions of the Charter of fundamental Rights of the European Union and the Oviedo Convention addressing genetics, without discussing their application in various situations.

⁶⁵ Introductory commentary can be found in Fenger (2014). Schillhorn and Heidemann (2017) is 457 pages commentary explaining in detail provisions of this German federal statute with resort to extensive literature and official interpretation by expert bodies.

4 Genetic Testing in Employment

4.1 Outline of Labour Laws in Czechia

Labour law in Czechia is an expression of two countervailing tendencies: protectionism ultimately rooted in the alleged worker protections of the socialist period on the one hand, and, on the other, a *laissez-faire* attitude tied to the crude neoliberalism of the immediate post-socialist years. The new Labour Code,⁶⁶ recodified a decade earlier than the new Civil Code⁶⁷ and retained as a separate piece of legislation, embodies the former tendency. However, the latter cannot be ignored. As regards wages, labour time, and safety, the *laissez-faire* approach prevails due to shortcomings in the enforcement of labour laws by slow courts and weak trade unions. This results in an absence of assertive collective bargaining and a dearth of solidarity among various groups of employees.

Medical examinations of applicants and employees are addressed in the chapter "Labour-medical services and examination of health feasibility of candidates for employment," of the Law on Specific Medical Services.⁶⁸ The Decree Regarding Occupational Health Services⁶⁹ implementing this Law specifies examinations of workers in general and in particular professions, as well as job candidates, students, apprentices, and pupils.

This Law and its schedules do not specifically address the use of genetic testing. However, the tendency to interpret Czech labour law as a plethora of cogent rules in conjunction with the European Union's new anti-discrimination rules addressing labour relations raises serious doubts as to whether Czech employers could ever genetically test their employees.

4.2 Realities of Genetic Testing in the Field of Employment

According to a leading geneticist in Brno,⁷⁰ genetic testing for occupational purposes is largely non-existent in Czechia. The only exception is the screening of the few healthcare practitioners who handle cytostatic pharmaceuticals, which are suspected to cause genetic mutations.

However, the mere illegality of genetic testing in the context of employment cannot explain its factual absence in Czechia. Many legal rules are breached frequently. Instead, Czech employers seem to lack any incentive to rely on genetic tests in the selection of employees.

⁶⁶Zákon č 226/2006 Sb, *zákoník práce*.

⁶⁷Zákon č 89/2012 Sb, *občanský zákoník*.

⁶⁸Zákon č 373/2011 Sb, *o specifických zdravotních službách*, paras 52–60.

⁶⁹Vyhláška č 79/2013 Sb, *o pracovnělékařských službách*.

⁷⁰According to a conversation with Renata Gaillyová in June 2017.

Despite perennial complaints, employers in Czechia can dismiss their employees rather easily, compared to other countries. Seeking compensation for unlawful dismissal through judicial action is a lengthy, difficult, and unpredictable process. Moreover, a significant part of an employee's wage results from his/her boss's positive assessment, whereas a low wage could signal dissatisfaction.

Czechia enjoys a low unemployment rate, except in rust belts and remote regions. There is a serious shortage of native skilled workers, which has been alleviated by immigration from the East. Under such conditions, employers do not dare select employees on the basis of as infeasible and potentially sensitive a criterion as genetics. It is debatable whether Czech managers are prudent and prescient enough to even consider genetic testing in their human resources management. Other tasks, problems, and risks are more acute. Additionally, managers from the West could come with presupposition that genetic tests are controversial.

Few employers select workers transparently. They do not trust diplomas, school grades, certificates, or recommendations. Applicants who are rejected rarely complain; legal action is sporadic, and proceedings are lengthy and their outcomes unpredictable. Employers know that they must avoid overt discrimination in job advertisements to escape criticism and complaints. Nevertheless, selection based on sex (e.g., expected maternity), age (e.g., lack of perspective), race (e.g., the stereotype that Roma are quick tempered, uneducated and criminal), or handicap (e.g., necessary accommodation and reduced performance) is an all-too-common reality.

Rejection based on appearance, religious beliefs, political activism and ideology, or apparent disease not directly compromising performance would spark suspicion. It is possible that managers could perceive an applicant or employee's genetic disorder negatively (e.g., "he/she is weird") or simply fear the premature termination of his/her career. Nevertheless, we should not generalize. People can show unexpected sympathy to those suffering from gene defects.

Applicants and workers provide blood samples as part of their general medical examinations. It is possible that they could inadvertently "consent" to genetic testing when filling out complex forms. Some employers may possess biological samples without having obtained their employee's consent. An employer determined to carry genetic testing would be capable to realize it. Genetic laboratories compete for clients. As mentioned, law in reality differs frequently from law in books in a post-socialist country.

4.3 Unfeasibility of Genetic Testing in the Field of Employment

There is awareness of genetic discrimination in employment in the global expert community. This project confirms it. High-profile cases in the United States of

America⁷¹ show the intent of some employers to collect and analyse their employees' genetic information. However, such activities are not widespread. I hypothesise that the few cases attracting attention reveal overeager managers.

I suggest comparing this phenomenon with psychological testing. Psychological testing has developed as an auxiliary method of selection or promotion of workers. Nevertheless, psychologists and other consultants would likely extend their contribution if demanded.

The question of whether there exist any workable models for the genetic testing of applicants and employees that are feasible for human resources managers remains unanswered. The optimism surrounding human genetics, which led to overinvestment in recent decades, has proven misplaced. Although there are many mutations that lead to debilitating and fatal diseases, these diseases are rare. Common diseases typically result from lifestyle and environmental factors, while the role of individual genes remains unclear.

Nevertheless, the decrease in price for genetic tests makes them more affordable for employers, and the progress in their interpretation may make genetic testing of applicants or employees feasible in the near future.

We shall remember that there is no significant employers' engagement in the fields of healthcare and social security in Czechia. There seems to be no workable selection of employees based on genetic testing.

4.4 Sensitivity of Genetic Testing in the Field of Employment

Genetic testing is controversial in the West in general and in employment in particular. Restrictions imposed on it enjoy broad support. People appear to recognize the importance of everyone having the opportunity for and access to employment. As evidence, the Genetic Information Non-discrimination Act (2008) is a rare example of a federal law that received almost unanimous bipartisan support in the United States of America.⁷² Attempts to dilute this standard have been unsuccessful.⁷³

It is easy to conclude that provisions of the Oviedo Convention and the Protocol (once ratified) render genetic testing in the field of employment impermissible. Moreover, the European Union would likely support this position and apply its

⁷¹Burlington Northern Santa Fe Rail Road tested its engineers for genetic predisposition for carpal tunnel syndrome. After public outrage, the Equal Employment Opportunity Commission successfully pushed for settlement, see <https://www.eeoc.gov/eeoc/newsroom/release/4-18-01.cfm>.

⁷²Enacted by the 110th United States Congress, effective since 21 May 2008, public law 110-233, 122 Stat 881. For early and advanced discussion see e.g. Nemeth P and Bonette TW (2009) and Ajunwa (2016).

⁷³See e.g. an amendment of the 2008 Genetic Information Non-Discrimination Act with the proposed H.R.1313—Preserving Employee Wellness Programs Act enabling employee's consent for genetic testing related to optional health programmes.

Charter of Fundamental Rights and anti-discrimination laws as an obstacle to genetic testing in the field of employment. Without any case law, we can only hypothesise that the emergence of genetic testing of workers for various reasons will shake this stance in the future.

4.5 Discussing Various Rationales for Genetic Testing of Applicants and Workers

There are many reasons why an employer may wish to genetically test job applicants and employees.

First, an employer may be trying to detect genetic defects resulting in a disease with adverse implications for workplace or general public safety. There are many situations in which health conditions impact job eligibility.⁷⁴ For example, epileptics cannot be drivers or operators of machinery, and specific restrictions are determined by the past frequency and severity of seizures.

An example with a particular genetic aspect is Huntington's disease, whose early symptoms could compromise safety in certain fields of work. The protection of the public would justify genetic testing if it could be shown to diminish risk in the early stages of disease. Psychologists offer private businesses testing to avoid uncooperative, unreliable or otherwise unfitted applicants.

Unequivocal condemnation of genetic testing for such purposes is difficult to justify if other diagnostic methods resulting into similar a selection of applicants and the exclusion of workers are accepted. Pathological psychological traits justify workers' exclusion from certain professions, including drivers, police officers, soldiers, and pilots.

The second reason for genetic testing could be that a particular genotype combined with aspects of a specific job—for example, exposure to a certain substance—causes, worsens, or increases the risk of a disease for that worker. The protection of workers' life and health is paramount.⁷⁵ Many workplace restrictions serve primarily to protect the health of workers—for example, prohibition on smoking in the workplace. Nevertheless, many risks cannot be entirely eliminated. For example, coal miners generally stop working after a fixed number of years exposed to pollutants, while some stop earlier if the work has an increased adverse effect on their health. Employers are liable for occupational diseases and injuries.⁷⁶ Czech law in general and labour law in particular⁷⁷ typically do not allow a worker to renounce

⁷⁴There are numerous ministerial decrees adopted by ministries in accordance with provisions of laws, specifying requirements for various professions (drivers, miners, soldiers, policemen, healthcare practitioners, etc.) in Czechia.

⁷⁵Paras 101–108 of the 2006 Labour Code.

⁷⁶Paras 269–270 of the 2006 Labour Code.

⁷⁷Para 2898 of the 2012 Civil Code, para 4a of the 2006 Labour Code.

future claims for compensation. Furthermore, it is difficult to justify a prohibition on genetic testing if other diagnostic measures are routine.

The third reason could be employers' desire to select the best applicant for a job or the ideal worker for a promotion. Employers already test performance, knowledge, experience, creativity, reliability, and resilience. These methods reveal unchangeable psychological and somatic traits. We can speculate that some of these traits have a genetic background. Genetic testing cannot currently be used for such purposes, but this could change with further improvement of testing technologies. We must consider why genetic testing should be unacceptable if psychological or somatic tests, which are allowed, could be rather invasive and their results just as controversial as the former.

The fourth reason is that employers may wish to reject a candidate for a job, or to fire, demote, or simply refuse to promote an employee whose genetic profile predicts a future disease that would terminate prematurely his/her career. People would likely perceive this as unacceptable discrimination. Nevertheless, even this reason does not deserve total condemnation. The exorbitant investment in training⁷⁸ or the dependence on particular individuals⁷⁹ could rationally support such practices.

5 Genetic Testing in Insurance

5.1 Universal Public Health Insurance

Public healthcare insurance⁸⁰ covers the entire population of Czechia and is compulsory. Employers, employees, and self-employed persons pay contributions. The State subsidises health insurance for children, students, parents on leave, and seniors. The economically inactive must still pay a lump sum. Health insurance funds (pl. *zdravotní pojišťovny*)—of which there were seven in 2018—contract public and private medical providers, who in turn provide health care to their clients. Standard care is generally free and co-payments are negligible. All funds follow national policy, which includes complex annual ministerial decrees on reimbursement. Money is redistributed among the health insurance funds according to the age of their clients.

⁷⁸It is worth to note that the 2008 Genetic Information Non-Discrimination Act (USA) is not applicable on US military personnel, while specific internal rules limiting genetic testing are applicable. We can discuss whether genetic profile could play role in the selection of an astronaut for a particular space mission by the National Aeronautics and Space Administration, if extensive health checks serve routinely this purpose.

⁷⁹For example, lead actors are totally irreplaceable in advanced phases of filming. I suggest that film producers escape restrictions with absolute discretion of producers including health checks.

⁸⁰Established with the Law on Public Health Insurance (*Zákon č 48/1997 Sb, o veřejném zdravotním pojištění*), laws on public health insurance funds and numerous ministerial decrees, annual decrees on reimbursement being crucial. For detailed overview, see Křepelka (2017).

These funds must not refuse any client with a pre-existing disease, injury, or disability. Even reckless behaviour (e.g., alcoholism, smoking, drug addiction, overeating, serious and chronic non-compliance of patients, etc.) does not result in increased premiums or co-payments, reduction of coverage, or exclusion. Clients will continue to be covered even if they fail to pay their contributions and even when such conditions, genetic testing for the purpose of excluding potentially expensive clients is beyond consideration.

5.2 Eventual Genetic Discrimination in Provision of Medical Treatment and Its Public Financing

The clients (*pojištěnci*) of health insurance funds enjoy equal access to medical services. Persistent egalitarianism seems to be a deeply rooted legacy of socialism.⁸¹

However, significant differences result from the uneven allocation of money to branches of medicine. Elderly patients with chronic diseases frequently wait for treatment, and palliative care is underfinanced. Similarly, expensive innovative treatments are rationed through a concerted policy of the health insurance funds. Experts have highlighted and criticized regional disparities in coverage, especially because specialised care is available only in the biggest cities.

Courts have begun to review health insurance funds' decisions denying coverage for necessary but expensive treatments that are regarded as extraordinary and innovative, and thus not financed. However, their first judgments reveal an absence of any convincing methodology for the allocation of scarce resources. Therefore, one single judgment demanding administrative reconsideration of discrimination based on health status in cessation of treatment of a deceased infant suffering from genetically implied *epidermolysis bullosa* by parents⁸² could be regarded as the first recognition of de facto genetic differentiation in the field of universal public health insurance at the best.

Organ transplantation is regulated by a specific regime based on elaborate inclusion and exclusion criteria due to a chronic organ shortage.⁸³ A defective genetic makeup that would result in the risk of organ rejection would be a justifiable ground for refusing eligibility under such conditions.

⁸¹The Constitutional Court curtailed differentiation specified with a ministerial decree, reserving the issue to the Parliament, which is politically incapable to adopt laws on this differentiation.

⁸²Judgment of the Supreme Court (*Nejvyšší soud*) 30 Cdo 2260/2017, *JB a ZK v Fakultní nemocnice v Motole*, 13 December 2017, ECLI:CZ:INS:2017:30.CDO.2260.2017.1.

⁸³*Zákon č. 285/2002 Sb, o darování, odběrech a transplantacích tkání a orgánů a o změně některých zákonů* (Law on Donations, Removals and Transplantations of Tissues and Organs), para 17.

5.3 Mandatory Private Insurance of Resident Foreigners

Most residents—nationals of non-European Union countries⁸⁴—are required to purchase private insurance.⁸⁵ Insurers refuse coverage to those with pre-existing conditions and to other risky clients. Several foreigners are thus uninsurable and fail to obtain or retain their residence permits.

This regime is the subject of criticism. Non-governmental organizations campaign for the inclusion of these residents in the public health insurance system. Insurance companies lobbied successfully for their exclusion, because most immigrants are young, healthy men. Instead, the government tries to fill these lacunae with increasingly detailed rules.

No insurance company explicitly mentions genetic testing as a ground for exclusion. Single-gene diseases are thus not expressly excluded. However, policy terms contain many limitations and exclusions. We must also consider that these private insurance companies provide coverage limited to clients with restricted residence rights. Given that many single-gene diseases require permanent care and are debilitating, it appears unlikely that such diseases would be covered.

5.4 Insurance of Medical Treatment of Superior Quality

The Czech public healthcare system provides good healthcare when compared with other European countries.⁸⁶ Under such conditions, there is limited private health care in Czechia. Czech insurance companies have not developed any supplementary medical insurance. Nevertheless, insurance provided by foreign insurance companies is available as a result of extensive cooperation among insurance companies and brokers. Unsurprisingly, this insurance excludes pre-existing conditions. Thorough analysis would be needed to identify whether clients with unfavourable gene profiles would enjoy coverage.

5.5 Life Insurance

As in other countries, private life insurance is a sector in which genetic testing seems to be a feasible basis by which to distinguish clients according to their risk profile. Certainly, the thoroughness of the required medical examination differs depending

⁸⁴Nationals of the other member states European Union are assigned to Czech public health insurance according to its rules on coordination of social security (Regulation 883/2004).

⁸⁵*Zákon č. 326/1999 Sb., o pobytu cizinců na území České republiky* (Law on Residence of Foreigners on the Territory of the Czech Republic), para 180j.

⁸⁶Björnberg (2018).

on the premiums to be charged. Nonetheless, insurers routinely demand that prospective clients present their medical records.

The contract terms of several insurers include exclusions based on unfavourable genetic makeup. The Czech subsidiary of *Generali* explicitly excludes women with diagnosed BRCA1 or BRCA2 mutations, and terminates *pro futuro* coverage for breast cancer if subsequent testing reveals these mutations.⁸⁷ According to unofficial information, several geneticists recommend that their clients purchase life insurance prior to undergoing genetic testing.

Insurers tend to put genetically determined diseases on the list of exclusions or expect reduced compensation for their onset. An analysis of contract terms realized by a leading insurance broker reveals significant differences resulting from different specifications of diseases and their stages. Many serious diseases are excluded altogether or covered only in the final stages, and age could nevertheless terminate the coverage. Many insurers resort to positive lists on which insurable diseases are identified, and rare single-gene diseases are seldom listed.⁸⁸ Genetic discrimination can thus emerge without demands for genetic testing or the consideration of results of existing tests

5.6 Squaring the Circle: Anti-discrimination in Insurance

The European Union shapes rules for the insurance sector, just as it does for employment. Nevertheless, these rules are primarily aimed at the resilience of insurers necessary to enable their cross-border operations in the internal market.⁸⁹

With regard to genetic discrimination, Germany cautiously curtails the use of genetic tests for determining risk in insurance, with an exception for policies above a specific sum.⁹⁰ In Great Britain, insurers have adopted a voluntary moratorium on the use of genetic testing.⁹¹

⁸⁷See *Zvláštní pojistné podmínky pro rizikové životní pojištění* (Special contract terms for risk life insurance), ZPP RŽP, 2013/04 of Generali Pojišťovna, as, Art 6 (1.5), <http://www.generali.cz>.

⁸⁸BrokerTrust, *Pojištění vážných chorob pro finanční poradce* (Insurance of serious diseases for financial advisers), <https://docplayer.cz/3742982-Pojištění-vážných-chorob-pro-finanční-poradce.html>.

⁸⁹Currently including Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), OJ L 335/1, 17 December 2009.

⁹⁰Para 18 of the *Genodiagnostikesez*.

⁹¹See Concordat and Moratorium on Genetics and Insurance (between Her Majesty Government and the Association of British Insurers—ABI), 2014, <https://www.abi.org.uk/globalassets/sitecore/files/documents/publications/public/2014/genetics/concordat-and-moratorium-on-genetics-and-insurance.pdf>. See also Jackson (2006), p. 359.

Czechia's Law on Insurance⁹² offers lukewarm support for equality, while allowing for the differentiation of premiums or exclusion on the basis of gender, age, and health status if justified by actuarial mathematics.⁹³ Though individual genetic makeup is not an explicitly mentioned criterion, it can be subsumed under health status.

The Court of Justice of the European Union in *Test Achats* embraced gender equality in insurance by striking down the exemption for sex-specific premiums.⁹⁴ This judgment sparked considerable debate.⁹⁵ Differentiating clients according to their characteristics and future risk is a cornerstone of insurance, and various proxy criteria are used. Discrimination is not only the legal term for undesirable selection, but also a key concept of insurance mathematics.

Lawmakers can brand certain controversial criteria as unacceptable. Besides sex, race could be mentioned. Probably, the insurance industry can absorb it. However, differentiation on the basis of age and health status is hardly surmountable.

Contrary to the employment context, there is unlikely to be consensus in Europe that differentiation based on unfavourable genetic makeup should be eradicated in the field of insurance. However, genetic makeup could be equated with race, thereby rendering genetic testing unacceptable as a basis of insurance decisions. Nevertheless, genetic makeup is also a proxy for an individual's future health status.

As previously mentioned, adjudication is lengthy and unpredictable. There have not been many cases of consumers bringing suits against insurance providers who have offered illicit terms. Certainly, anti-discrimination laws can be a means of achieving compensation of damages for infringement of dignity (so-called satisfaction in central European legal traditions) in cases of illicit refusal of coverage. However, such compensation is hardly equivalent to the hypothetical coverage in case of illness, injury, or death. It shall be noted here that courts are generally reluctant to award considerable sums in these cases. The concept of punitive damages is alien in Czech law.

The official from the Ombudsman's Office I consulted informed me about the recent efforts of her department in the field of insurance. In light of complaints made by several rejected insurance applicants, the office scrutinized the applicable contractual terms. They questioned the listed exclusions in a closed roundtable with the insurers' representatives (Brno, 22nd June 2017). They criticised exclusions of psychiatric diseases, former drug addiction, and HIV/AIDS. I tried unsuccessfully to attract attention to the exclusion of women with genes for breast cancer mentioned above.

There is a continuing risk that ongoing resistance to genetic discriminatory practices in the field of insurance could fail to produce any change. People at risk

⁹² *Zákon č 277/2009 Sb, o pojistovníctví*.

⁹³ *Zákon č 277/2009 Sb, o pojistovníctví*, para 59.

⁹⁴ Judgment of the Court (Grand Chamber) of 1 March 2011, *Association Belge des Consommateurs Test-Achats ASBL and Others v Conseil des ministres*, C-236/09, 2011 I-00773.

⁹⁵ For an in-depth analysis, see Armbrüster (2012).

of genetically determined diseases are a minority, and insurers can marginalize them by excluding their diseases from insurable risks.

5.7 Testing and Discounts

If we cannot exclude the possibility that genetic information will be concealed or misstated in the field of employment, we must also expect the same in the field of insurance. Thorough medical examinations of clients considering expensive insurance policies may include, in addition to routine examinations, the collection of samples tested with the agreement of the parties to the policy or secretly.

Moreover, insurance companies may offer discounts to prospective clients whose genetic tests reveal an absence of genetic disorders.⁹⁶ I expect that most people would accept these terms, feeling no solidarity with those suffering from such disorders.

5.8 Insurance Fraud and Human Genetics

Insurance fraud has become frequent due to the ineffective prosecution of property crimes in post-socialist Czechia. This phenomenon contributed to increasing premiums. Therefore, the new Penal Code defines insurance fraud as a specified crime. Several people have since faced prosecution, with insurers drawing media attention to their cases. Unsurprisingly, fraud allows insurers to refuse compensation.

Insurance fraud is frequently connected with medical examinations. Unscrupulous physicians confirm non-existent illnesses and injuries, or declare conditions to be more serious than they actually are. Therefore, insurers resort to their own physicians to verify claims. Clients are required to keep their insurers informed about their status and any changes in their condition.

There is no doubt that intentionally concealing unfavourable genetic mutations would be qualified as insurance fraud if the insurer had previously requested information about genetic risks. It is less clear whether fraud could be presumed if an insurer had not specifically asked for such information, but where all relevant health status information is otherwise required. Equally unclear is the likely legal treatment of familial information indicating susceptibility to hereditary diseases. The degree of knowledge clients have of their familial susceptibility may vary widely.

We can only speculate that people who know, or who suspect due to familial incidence, that they have unfavourable genetic makeup fear purchasing life

⁹⁶ Jackson highlights that UK moratorium does not exclude consideration of negative test results for, as exemplified, early onset Alzheimer's Disease Jackson (2006), p. 361.

insurance because they could be accused of insurance fraud and their compensation denied.

5.9 The Underdevelopment of Life Insurance in Czechia

Life insurance is underdeveloped in Czechia. Elderly people remember the confiscation in 1953 of their already frozen savings, including life insurance policies. Despite the relative stability of Czechia's currency, people fear inflation. The wealthy have developed their own investment strategies, while the middle class relies on property ownership. The real estate bubble became a serious concern, but was also an opportunity for investors. Poor Czechs simply lack the money to purchase life insurance. Moreover, numerous insurance brokers compete fiercely for clients, and many resort to the manipulation of inexperienced clients, which renders life insurance untrustworthy.

6 Conclusion

Genetic testing for both medical and forensic purposes has become routine in Czechia, as in other developed countries. Nevertheless, its use remains sporadic in the fields of employment and insurance, likely due in part to the state of Czech political and socio-economic development as well as the shortcomings of post-socialist law. Although the Council of Europe and the European Union stipulate general principles, domestic legal discourse about the particularities of the regulation of genetic testing is in its infancy.

Discrimination based on individual genetic makeup is generally illicit in the employment context. Despite the fact that covert testing without informed consent is certainly punishable, one might expect it would occur in countries with perfunctory implementation of laws. Therefore, the absence of genetic testing in the workplace in Czechia is better explained by its impracticality, although rare exceptions exist that seek to protect healthcare practitioners handling dangerous substances.

Genetic testing and consideration of its results do play a role in life insurance. For instance, one insurer's contract terms exclude women with a genetically identified risk of breast cancer. Moreover, instead of controversial and likely illicit genetic testing, insurers exclude rare monogenetic diseases. Czechia has universal public health insurance, but we expect that genetic makeup could be considered in the allocation of treatment and its public financing.

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