

Prying apart the tangled web of cross-border healthcare

The consequences of a hard Brexit for the access to cross-border curative healthcare on the island of Ireland.

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ABSTRACT

Since 2016 there has been lively debates within the UK and the EU about the implications of Brexit. However, roughly two months before Exit Day there is still nothing but uncertainty. Especially on the island of Ireland a Brexit can have big implications. This research aimed to provide some clarity in one of the policy fields that is particularly at risk, that is, cross-border curative healthcare. By means of a single-case study, this research conducted an ex-ante evaluation to assess what the consequences will be of a hard Brexit on access to cross-border curative healthcare on the island of Ireland. The analysis shows that the problems caused by a hard Brexit can largely be mitigated by a comprehensive free trade agreement, but probably will not due to a lack of willingness in UK Politics to compromise.

“Cross-border cooperation doesn’t fit into neat little boxes. For instance on health, health cooperation relies on people moving backwards and forwards, so it involves citizens’ rights, it involves human rights, it involves professional qualifications, it involves education, it involves all sorts of things that don’t fit neatly in the health box. That’s the thing about cross-border cooperation and cross-border lives, they don’t fit into neat boxes, they overlap, they interrelate, and if you try to change one element, it’s going to have an impact on other elements.” – Anthony Soares, acting director at the Centre for Cross Border Studies in Armagh, Northern Ireland.

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1 INTRODUCTION

It was called an ‘historical mistake’ by former British Prime Minister Tony Blair, effectively led to the resignation of two other British Prime Ministers in three years and UK Parliament spent over 500 hours debating about it (BBC, 2018; HM Government 2016, 2019b; RTE, 2019). Brexit: the portmanteau of ‘British’ and ‘Exit’, the infamous word referring to the United Kingdom’s (UK) departure from the European Union (EU) and arguably one of the greatest contemporary challenges facing UK politics and the island of Ireland.

One of the major challenges for the island of Ireland concerns the Irish border. Both the EU and the UK have explicitly expressed the intention to prevent a hard Irish border (European Council, 2017; HM Government, 2017c). The Irish border is a historically, socially and politically sensitive issue and played a prominent role in the ethnic-nationalist conflict in Northern Ireland for its symbolism regarding the political status of the country (Hayward, 2006). Although the invisibility of the border is attributed to the completion of the Single European Market (SEM) in 1992 (Anderson & O’Dowd, 1999; Diez & Hayward, 2008), the current open border arrangements are seen by both the Irish and British governments as “*the most tangible symbol of the Peace Process*” (Irish Government, 2017, p.22; Northern Ireland Affairs Committee, 2018, p.7).

Yet, border infrastructure appears to be a likely outcome of Brexit. The UK has been clear from the outset that leaving the EU also involves leaving the SEM and the Customs Union (HM Government, 2017a&b). Also referred to as a ‘hard’ Brexit, this means that there are two possible scenarios for trade between the EU and the UK in the long term: either concluding an Free Trade Agreement (FTA) or relying on World Trade Organization (WTO) rules. Both scenarios will lead to regulatory differences between the EU and the UK. As several academics told the House of Commons, “*Regulatory differences create borders*” (De Mars, Murray,

O'Donoghue, & Warwick, 2017, [23]). Border infrastructure will therefore be needed to protect the integrity of both the SEM and the UK's economic market.

The possible return of border infrastructure raises questions about the future of cross-border cooperation on the island of Ireland. Cross-border cooperation is considered to be an important means to resolving conflict and ensuring peace in the border area of the Republic of Ireland (hereafter 'the Republic') and in Northern Ireland (O'Leary, 2001; Teague & Henderson, 2006). It was, therefore, institutionalised by the peace agreement, that is, the 1998 Good Friday or Belfast Agreement (hereafter the '1998 Agreement'). However, a number of areas of cross-border cooperation on the island of Ireland rely to a large extent on EU legislation, which will be disintegrated with a hard Brexit.

Cross-border healthcare is one such an area. Cross-border healthcare is important for the provision of access to healthcare throughout the island, especially for curative healthcare. Curative healthcare often concerns chronic and long-term care and is, therefore, often sought close to home and less often across borders. For curative healthcare, on the other hand, people are more likely to look across the border. Both the Republic and Northern Ireland struggle to meet the demand for curative healthcare (British Medical Association, 2017), as is evident in long waiting lists in both countries¹. In addition, neither country is able to provide cost effective specialised medical care, which is therefore often delivered jointly. Moreover, people who live in border areas regularly receive emergency care on a cross-border basis. Ambulance services cross the border on a daily basis as if it is non-existent (British Medical Association, 2017; Jamison, Butler, Clarke, McKee & O'Neill, 2001; Select Committee on the European Union, 2017; Tannam, 2018). The provision of such cross-border healthcare relies on EU legislation for, amongst others, the reimbursement of cross-border healthcare and the movement of –

¹ Waiting list data for Ireland can be found on the National Treatment Purchase Fund website (ntpf.ie) and waiting list data for Northern Ireland can be found on the website of their Department of Health (health-ni.gov.uk).

medical – goods and services (British Medical Association, 2017; European Union Committee, 2018; The Centre for Cross Border Studies, 2016). This legislation will be disintegrated following a hard Brexit and barriers to free movement will be reintroduced at the border through border infrastructure.

One of the major challenges of Brexit for UK politics is agreeing on how Brexit should be implemented. With roughly two months left until Exit Day, UK Parliament seems to be in deadlock. The Members of Parliament (MPs) rejected the EU-UK Withdrawal Agreement in three separate sessions with ‘meaningful votes’, i.e. 432 against 202, 391 against 242 and 344 against 286, respectively (UK Parliament, 2019a&b&c). Moreover, the MPs rejected eight alternative scenarios for Brexit, including a no-deal scenario, a Customs Union and a second referendum (UK Parliament, 2019d). Unable to reach consensus in parliament, Theresa May resigned as Prime Minister after the third voting round on the Withdrawal Agreement (HM Government, 2019c). The new Prime Minister, Boris Johnson, has now allegedly called out to the EU to make a ‘common sense’ compromise to make changes to the Withdrawal Agreement (BBC, 2019), while the EU has reportedly told him that renegotiation is not an option (The Guardian, 2019).

With roughly two months before Exit day, the impact of Brexit is, therefore, uncertain. This is both because the UK parliament has not yet been able to reach an agreement on the implementation of Brexit, and because there is no precedent as the UK is the first country to ever leave the EU. Nevertheless, it is important to provide some clarity about the possible consequences of a hard Brexit on access to cross-border curative healthcare as a limitation of this access can have major consequences for the general access to healthcare on the island. This research is therefore intended to analyse these consequences in a single case study by means of an ex-ante evaluation. It sets out to answer the following research question:

What are the consequences of a hard Brexit for the access to cross-border curative healthcare on the island of Ireland?

This question will be answered by means of the following sub-questions:

1. Which legislation and other structures exist on EU and national level that provide access to cross-border curative healthcare on the island of Ireland?
2. How does a hard Brexit affect the provision of access to cross-border curative healthcare on the island of Ireland?
3. To what extent will the effect of a hard Brexit on the provision of access to cross-border curative healthcare on the island of Ireland impede that access?
4. To what extent are the problems caused by a hard Brexit for the provision of access to cross-border curative healthcare on the island of Ireland solvable?

Data is collected through document analysis and in-depth interviews with experts to determine what legislation there is that provides access to cross-border curative healthcare on the island of Ireland, which of these legislations will be disintegrated or will be affected by a hard Brexit and to what extent gaps in legislation can be resolved by alternative structures. However, this resolvability depends on the decision-making capacity of the UK Parliament's to agree to implement such alternative structures. That is why this research will build on contemporary contributions to the concept of wicked problems and propose to add political (un)willingness to compromise as a contextual determinant of the solvability of policy problems. Based on this solvability, it can then be assessed what, at least roughly, the consequences will be for access to cross-border curative healthcare on the island of Ireland.

Before moving on to the general outline of this research, a number of central concepts must first be defined. The definition of ‘healthcare’ will be adopted from Directive 2011/24/EU² and shall mean “*health services provided by health professionals to patients to assess, maintain or restore their state of health, including the prescription, dispensation, and provision of medicinal products and medical devices*” (Article 3a). ‘Curative healthcare’, then, is healthcare ‘focused on curing the patients, such as diagnoses and treatment’, rather than limiting as much as possible the disadvantages of diseases, limitations, and disorders, which is the main goal of curative healthcare (Kroneman, Boerma, van den Berg, Groenewegen, de Jong, & van Ginneken, 2016). ‘Cross-border curative healthcare’ is then defined as, based on Article 3e of Directive 2011/24/EU, curative healthcare “*provided or prescribed in a Member State other than the Member State of affiliation*”. Lastly, ‘all-island healthcare’ is defined as *healthcare offered in and financed by both the Republic and Northern Ireland rather than belonging to one of the two*. ‘Access to healthcare’ is a complex concept which will be further elaborated on in chapter 3 as part of the dependent variable.

In the following chapters of this research, I will first discuss the theoretical concept of the wicked problem. I will provide an overview of the development of this concept in the last 45 years before making my own contribution to the ongoing debate. In the chapter thereafter, chapter 3, I will discuss how I set out to answer the research and sub-questions. I will justify my choice for a single-case study and explain why case studies are suitable for evaluative studies. In this chapter I will also discuss the data collection and analysis method, and I will operationalise the independent and dependent variable. Chapters 4 to 7 subsequently contains the analysis and results of the research. To improve the structure of the analysis and the overall research, each chapter is concerned with answering a separate sub-question. As is tradition, I will finish with a conclusion.

² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0024&from=EN>

2 THEORETICAL FRAMEWORK

In this chapter, I will discuss the theoretical framework in-depth, or rather theoretical construct, which is used to approach the research problem: the concept of the wicked problem. I will first discuss its introduction by Rittel and Webber in 1973 before giving a general overview of its development throughout the years. Thereafter I will review more contemporary contributions to the literature, including the two-level framework by Alford and Head (2017) and the Questioning-distance framework by Turnbull and Hoppe (2019). In the final part of this chapter, I will make my own contribution to the ongoing debate on the concept of the wicked problem by proposing to add the political willingness to compromise as a determinant of the political context that influences solvability of policy problems. Based on the concept of the wicked problem, I have developed an expectation regarding the consequences for the access to cross-border curative healthcare on the island of Ireland: that the problems caused by a hard Brexit are unsolvable.

However, before I proceed to the concept of the wicked problem, I will first pay attention to the theory of neo-functionalism and its application as a theory of disintegration. Neo-functionalism has been a dominant theory for explaining the emergence of cross-border cooperation on the island of Ireland (Tannam, 1996; 1999; 2006), and the rest of Europe, and cannot be omitted from a theoretical overview of existing (relevant) theories. However, I will also argue why the theory of neo-functionalism cannot be used to answer the research question.

2.1 NEO-FUNCTIONALISM

When discussing cross-border healthcare on the island of Ireland, neo-functionalism is a reasonable theory to turn to. Central to this theory of regional integration is the concept of spill-

over, better known as the ‘spill-over effect’. This concept implies that cooperation in one field requires cooperation in another (Hooghe & Marks, 2006; Schmitter, 2002). It can be used to explain the European dimension of the emergence of cross-border healthcare on the island of Ireland. Some scholars have also applied the neo-functionalist logic to the national dimension of cross-border cooperation on the island of Ireland. They argue that the creation of the SEM and the reform of EU regional policy would upgrade common interest would have an effect on cross-border cooperation on the island of Ireland. Yet, according to Tannam (2006), there was only limited practical evidence to support this. She argues that while the ideological resistance against cross-border cooperation seemed to be weakened, the perception of conflictual interests still appeared to be stronger than the perception of common interest.

Neo-functionalism is much stronger in explaining the EU dimension of cross-border healthcare on the island of Ireland. EU Health policies are considered to be a perfect example of the spill-over effect (Greer & Kuhlmann, 2019). The provision of healthcare is not an EU competence. Rather, EU health policy derives from the EU’s competences regarding the internal market. The SEM’s free movement of people, goods and services overlapped with cross-border healthcare activities. For example, for guaranteeing the free movement of people it is important that EU citizens also have access to healthcare in other Member States and for guaranteeing the free movement of services it is important that a doctor is allowed to work in another Member State. This is how EU legislation in one area spilled over into another area (Greer, 2006).

However, neo-functionalism is pre-eminently an integration theory and Brexit is a case of disintegration. According to Rosamond (2016), neo-functionalism is not suitable for explaining European disintegration. He claims that neo-functionalists view the EU as being too institutionally resilient for the possibility of disintegration. Even more, Rosamond states that, in general, no substantial theory of disintegration has yet been developed. Nevertheless, some

neo-functionalists have begun thinking of how the spill-over effect could be reversed, including Schmitter and Lefkofridi (2016). They explored which possible hypotheses and presumptions within the theory might predict “spill-backs”. They explain spill-backs as situations where *“member states no longer wish to deal with a policy at the supranational level, e.g. the collapse of the Euro or Member States (MSs)’ exits from the Eurozone or even the EU – be they coerced (e.g., Grexit) or voluntary (e.g., Brexit)”* (p.3.). Indeed, the Brexit referendum was a result of long-term internal division in the Conservative party regarding the common position on EU integration. One of the big arguments against European integration was that people wanted to regain control of their borders (Hobolt, 2016). These people were opposed to increasing political cooperation in the EU and as a result they decided not only to end political cooperation, but also economic cooperation (HM Government, 2017a&b). This could very well be explained with the principle of spill-backs. If economic cooperation increases the need for political cooperation, then the end of political cooperation is likely to also mean the end of economic cooperation. You could therefore argue that any Brexit would by definition be a hard Brexit. However, a hard Brexit is already the point of departure this research. Spill-backs only say something about the process of disintegration, not about its consequences. Thus, based on this theory, no expectations can be created about the direction of the research question. As will be explained in the rest of the theoretical framework, the concept of the wicked problem is more suitable for this.

2.2 THE CONCEPT OF THE “WICKED PROBLEM”

The concept of 'wicked problems' has its origins in 1973, when Rittel and Webber published their widely acclaimed and criticized paper 'Dilemmas in a general theory of planning' in which they criticized the use of rational approaches in dealing with social policy problems. Their work

is in line with the general trend of the 1970s in which government officials began to oppose the idea of the 'solvability' of social problems and social policy analysts called for attention to the subjectivity of problem definition in social policy (Head, 2008). In their paper, Rittel and Webber distinguish between 'tame' scientific problems and 'wicked' societal problems, pointing to the inappropriateness of the approach to solving the first for dealing with the second. They argued that scientific-based, rational approaches will certainly fail to resolve wicked problems, as these approaches rely on the solvability of problems. Wicked problems are characterized by a lack thereof, which results from an inherent uncertainty surrounding their nature. Undefined problems are unsolvable, for the solution to a problem is dependent on the definition of that problem.

Rittel and Webber (1973) formulate ten characteristics wherewith a wicked problem can be identified:

1. There is no definitive formulation of a wicked problem.
2. Wicked problems have no "stopping rule".
3. Solutions to wicked problems are not true or false, but good or bad.
4. There is no immediate and no ultimate test of a solution to a wicked problem.
5. Every solution to a wicked problem is a "one-shot operation"; because there is no opportunity to learn by trial-and-error, every attempt counts significantly.
6. Wicked problems do not have enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan.
7. Every wicked problem is essentially unique.
8. Every wicked problem can be considered to be a symptom of another problem.

9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's resolution.

10. The planner has no right to be wrong (p.161-166)

Although Rittel and Webber's work is seen as the traceable origin of the discourse of 'wicked problems', their contribution to its development is limited to the introduction the concept. While they formulated characteristics by which such problems can be distinguished from other, more 'tame', problems, they did not specify how many characteristics a problem must meet in order to be identified as 'wicked', nor did they clarify whether or not there is a difference in weight between the individual characteristics. In other words, although Rittel and Webber stressed the importance of distinguishing between wicked problems and tame problems, they failed to further develop the distinctive characteristics of wicked problems into a tool with which such problems can be effectively distinguished from 'tame' problems in practice.

2.2.1 The development of the concept of Wicked Problems since Rittel and Webber

Since Rittel and Webber's paper, there has been a rich debate and extensive literature³ on wicked problems, in which various conceptualisations and typologies have been proposed to 'improve' our understanding of such problems. Discussing all these separately would be highly superfluous, which is why the study by Danken, Dribbisch and Lange (2016) will be used to give an indication of the general consensus in the literature on wicked problems. Although their sample of journal articles 'only' covers 15 years of over 40 years of literature, the vast majority

³ A simple Google Scholar search showed over 275.000 hits for the search 'Wicked Problem'. In addition, Danken, Dribbisch and Lange (2016) state that between 1999-2014, a total of more or less 3.000 citations were made in 2.700 different articles.

of literature has been published in these years with an especially sharp rise since 2011 (Figure 1). According to the authors, despite its introduction in 1973, the debate surrounding the concept of wicked problems was virtually silent between the 1970s and the late 1990s. It is, therefore, safe to assume that their analysis covers the lion's share of the literary debate since Rittel and Webber.

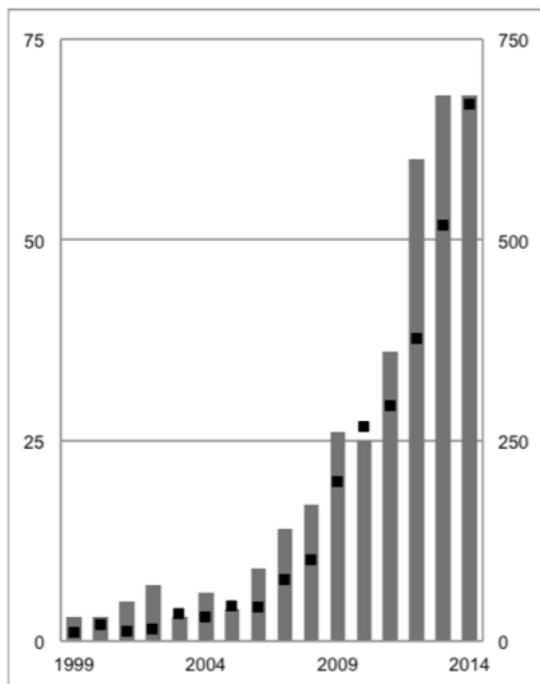


Figure 1: Publications and citations of wicked problems 1999-2014 (authors' own compilation) Danken, Dribbisch & Lange, 2016)

Danken, Dribbisch and Lange analysed a sample of 105 journal articles between 1999 and 2014, all specifically related to the scholarly debate on wicked problems. Using qualitative data analysis software, they analysed which common themes seemed to appear most frequently in the literature. They found seven thematic clusters (Figure 2), of which the three main themes are: the difficulty of problem definition (57 percent of all analysed articles); the involvement of multiple actors (73 percent of all analysed articles); and the question of resolvability (77 percent

of all analysed articles). These thematic clusters seem to be, as the authors call it, ‘the dominant thematic complex’, as the three themes co-occur in over 40 percent of all articles. However, the two main interlinked themes seem to be the issue of resolvability and multi-actor involvement, as they co-occur in almost half of all articles.

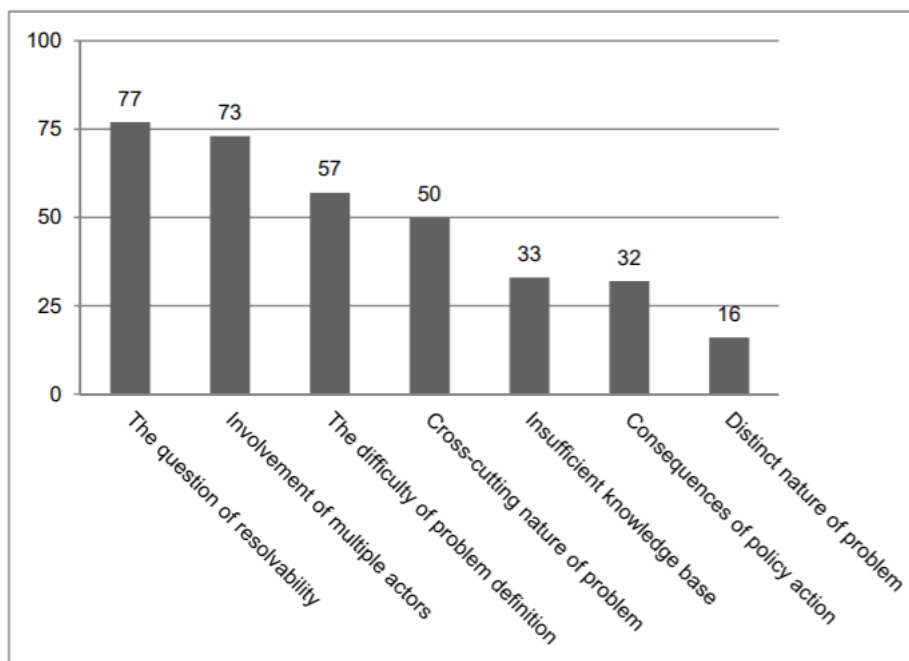


Figure 2: Ranking of thematic clusters according to frequency (i.e., share as percentage, authors’ own compilation) (Danken, Dribbisch & Lange, 2016)

Based on their analysis, Danken, Dribbisch and Lange draw several conclusions from the general consensus within the three main themes (Figure 3). Scholars in almost half of all contribution argue that wicked problems are unsolvable, while only seven percent argues that they are solvable. At the same time, around 60 percent of all articles tend to associate this unsolvability with the involvement of multiple actors, rather than ascribing it to the nature of wicked problems. The multitude of actors, guided by their diverging interests and values, each interpret the cause and effect of a (wicked) problem differently, resulting in them developing

competing ideas regarding its solutions. Moreover, almost 70 percent of scholars focussing on the involvement of multiple actors posit that the views of these actors are not only competing, but often even conflicting if not irreconcilable. The types of actors involved vary according to the literature, from public actors to organizational actors and occasionally even an economic actor. This is due to the fact that half of the articles discuss the ‘cross-cutting nature of the problem’ as a main theme with wicked problems, and almost 70 percent of these articles argue that actors from different policy areas are involved.

The main other factor contributing to the unsolvability of the problem seems to be the difficulty of problem definition, which is attributed by 40 percent of the articles to the complex nature of wicked problems that defy full understanding. The full extent of the problem would be hard to grasp due to the innumerability and interrelatedness of its causes, effects and (causal) explanations. Four main explanations seem to dominate in the literature. First, more than 70 percent of the articles discussing the challenge of understanding wicked problems claim that knowledge about wicked problems, including scientific knowledge, is both insufficient and often disputed. Second, 60 percent of all such articles state that wicked problems are inherently unique, which means that there is no precedent and the result of which there is no prior knowledge regarding the problem. Third, in nearly 60 percent of these articles, scholars claim that wicked problems are embedded in other problems, blurring the scope of this wicked problem. Fourth and lastly, half of all articles argue claim that understanding wicked problems is challenging as they are concerned with conflicting values between stakeholders (Danken, Dribbisch and Lange, 2016).

Rank	Thematic Clusters and Sub-Clusters	Share Within Cluster (as percentage)	Share Among All Contribut. (as percentage)*
1	The Question of Resolvability		
	Wicked problems are non-resolvable	48	37
	Wicked problems are resolvable	7	6
	Resolution is uncertain and/or difficult	31	24
	Resolution is an iterative process	49	38
	No true-or-false, but imperfect and temporary responses	36	28
2	Involvement of Multiple Actors		
	The actors involved have divergent values and interests	55	40
	Wicked problems involve disagreement and conflict among the actors involved	68	50
3	The Difficulty of Problem-Definition		
	Complex nature of problem	40	23
	Problem-definition is a social process	30	17
	Problem-definitions tend to change	18	10

* Total number of contributions: 105 (own compilation).

Figure 3: Frequency of (selected) thematic sub-clusters (Danken, Dribbisch & Lange, 2016)

2.2.2 Scales of ‘wickedness’

Many scholars have, throughout the years, tried to come up with a typology or framework to improve the identification of wicked problems. Contemporary literature on the concept of wicked problems seems to be increasingly moving away from the strict dichotomy between tame and wicked problems that Rittel and Webber proposed and instead are increasingly considering wickedness to be a scale (Termeer, Dewulf & Biesbroek, 2019). In the following section I will discuss some recent contributions to the literature on wicked problems. As you will see, the three main themes as determined by Danken, Dribbisch and Lange (2016) – the difficulty of problem definition; the involvement of multiple actors; and the question of resolvability – continue to be recurring themes.

One major contribution to improving the identification of wicked problems over the past five years comes from Alford and Head (2015; 2017), who developed a two-level framework for approaching wicked problems. Back in 2008, Head already translated Rittel and Webber’s 10 characteristics into three dimensions; complexity, uncertainty and divergence, (Figure 4) of which problems can contain low, moderate or high levels. He states that all three dimensions

are necessary conditions for wickedness, but that none is sufficient by itself. Rather, they form reinforcing relationships. For example, many aspects of the complexity of a policy problem can be tackled with a rational approach. Only when it is combined with uncertainty and a divergence of views does the problem become 'wicked'.

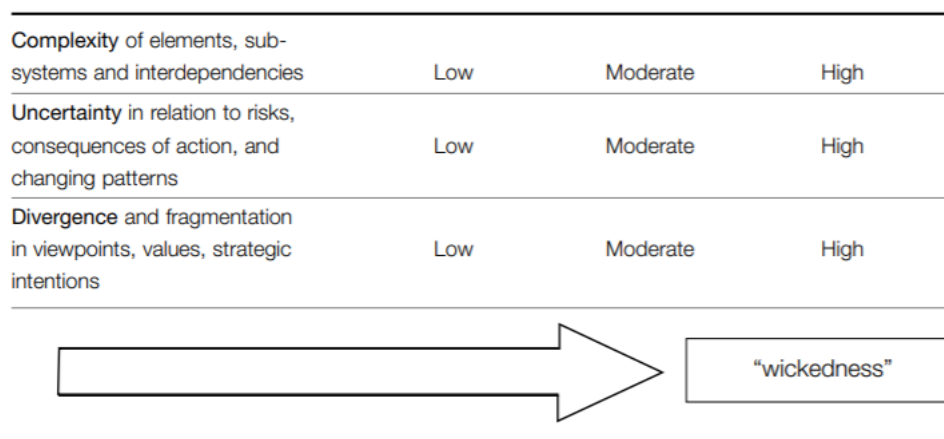


Figure 4: Complexity, uncertainty and divergence (Head, 2008)

In their prominent⁴ 2015 article Alford and Head reiterate the importance of these three dimensions, now formulated as ‘social pluralism’, ‘institutional complexity’ and ‘scientific uncertainty’, and build on these dimensions to take the first step in developing a spectrum of problem types. While the idea of these three dimensions are theoretical, later research finds empirically support to assume these three dimensions form the base of wicked problems (Kirschke, Franke, Newig & Borchardt, 2019). Alford and Head argue that tame problems are problems of which both the definition and the solution is clear, and that wicked problems are those of which both are unclear. However, instead of a tame/wicked dichotomy, Alford and Head suggest that there is a third type of problem: those problems of which the definition is clear, but the solution is not. Furthermore, they posit that complexity and divergence are the two basic elements of wicked problems and that uncertainty results from their high levels (Alford & Head, 2015).

⁴ Highest reported citations since 2015 in Web of Science (196)

In their 2017 article they elaborate this spectrum into a simplified continuum of nine types of problems, which serves as the first level of their two-level framework. This continuum consists of a vertical dimension and a horizontal dimension which together form a matrix (Figure 5). The vertical dimension consists of different levels for the intractability of the problem, which mirrors the nature of the problem. The horizontal dimension consists of the extent to which actors affect the intractability of the problem. They continue their idea from 2015 and add a category of problems, that is, complex problems, to Rittel and Webber's tame/wicked dichotomy. Alford and Head distinguish between technical complexity – either analytical or cognitive in nature – and political complexity – ranging from communicative to political.

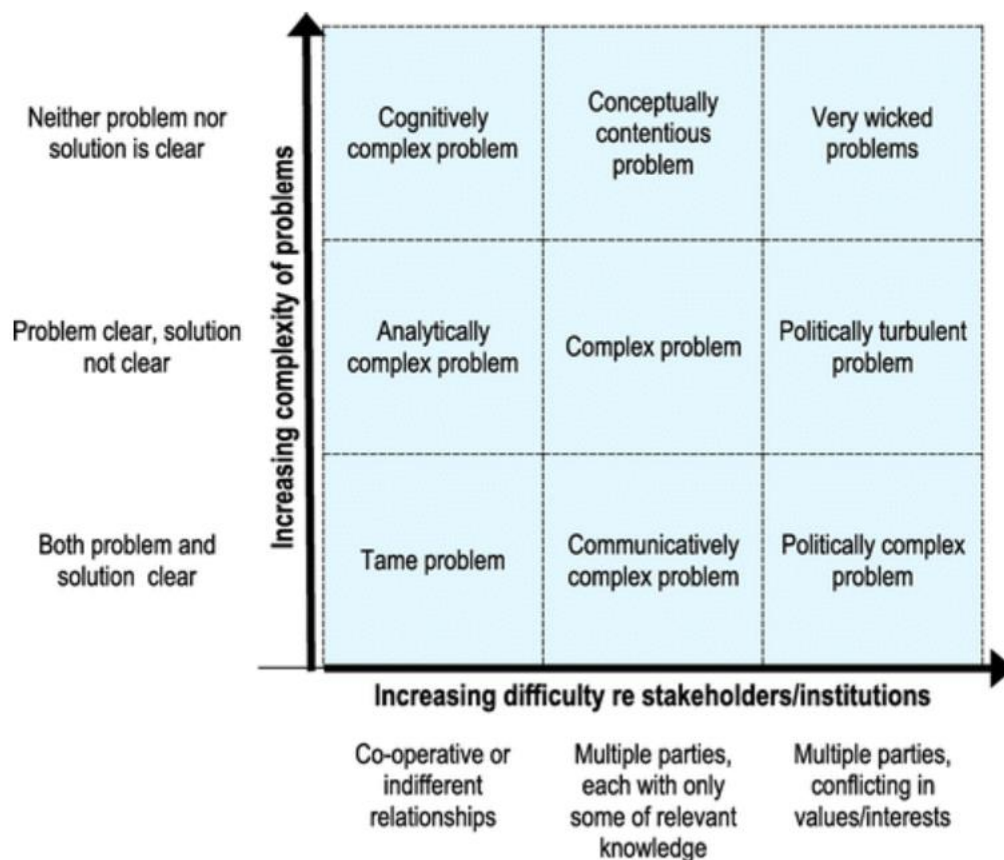


Figure 5: Alternative types of complex problems (Alford & Head, 2017)

Alford and Head do emphasize two things with regard to the application of the continuum. First, the continuum is highly simplified: *“The small number of dimensions and options cannot comprehend the intricacy and scale of a truly wicked problem. But at the same time, a radical increase in the number of elements would create a degree of complexity which may exceed even the most developed cognitive capacity.”* (Alford & Head, 2017, p.402). Second, the categories of problems are not self-contained but represent a continuum of wickedness. However, the continuum serves as a broad typology to set out the basic types of problems in the two dimensions, so that the second level of the framework can look more closely at the subtleties within those types.

By looking more closely at the subtleties within the types of problems in figure 5 the second level of the framework offers a more "fine-grained" scale of wickedness. In this level Alford and Head (2017) combine the two dimensions, the intractability of the problem due to its nature and the people that affect that intractability, with six causal categories (Table 1). They suggest that a problem is more wicked, or rather more likely to be wicked, if the following causal categories are present:

- ‘Structural complexity’: inherent intractability of the technical (i.e. non-stakeholder-related) aspects of the problem.
- ‘Knowability’: not only is there little knowledge about the issue, but the nature of the problem or its solution is such that it is *unknowable* – that is: the relevant information is hidden, disguised or intangible; it comprises multiple complex variables; and/or its workings require taking action to discover causal links and probable outcomes.
- ‘Knowledge fragmentation’: the available knowledge is fragmented among multiple stakeholders, each holding some but not all of what is required to address the problem.
- ‘Knowledge-framing’: some of the knowledge receives either too much or too little attention because of the way it is framed, thereby distorting our understanding.

- ‘Interest-differentiation’: the various stakeholders have interests (or values) which are substantially in conflict with those of others.
- ‘Power-distribution’: there is a dysfunctional distribution of power among stakeholders, whereby very powerful actors can overwhelm less powerful ones, even if the latter constitute a majority consensus; or whereby sharply divided interests are matched by sharply divided power. (p.407)

Basic dimension	Causal categories	More detailed dimensions	Scale of wickedness
Problem itself (vertical dimension)	Inherent complexity	Contradictions/dilemmas etc	Contradictions/dilemmas present = more wicked
		Remedies causing problems	Remedies causing problems = more wicked
	Clarity of problem	Hidden/disguised information Intangible phenomena	Problem unclear = more wicked
	Clarity of solution	Multiple variables Iterative discovery ('Ready, fire, aim!')	Solution unclear = more wicked
Stakeholders and institutions (horizontal dimension)	Knowledge	Institutional framing	Extensive reframing → ↑ level of attention = more wicked
		Knowledge fragmentation	High knowledge-fragmenta- tion = more wicked
	Interests	Interest differentiation/conflict	High interest differentiation/ conflict = more wicked
	Power	Stakeholder power-resources	High stakeholder power resourc- es = more wicked
		Enablers/constraints	More substantial enablers/ constraints = more wicked

Table 1: Deconstructing the dimensions of wicked problems (Alford & Head, 2017)

Alford & Head's basic suggestion to include 'complex problems' as a category between tame problems and wicked problems is also proposed by Peters (2017). Peters criticizes the lack of clarity concerning the practical application of 'wicked' characteristics, arguing that it has caused the concept to be stretched too far. Many policy problems have been, wrongly, defined as wicked simply because they met at least two or three characteristics. The problem with this, according to Peters, is that it has led to governments regularly, and unnecessarily, setting unattainable performance targets, as a result of which very few policy problems are actually solved. As a solution, he suggests considering complex problems as a more general category of policy problems of which wicked problems are a subset, seeing that a number of characteristics of wickedness appear to correspond to the characteristics of complexity in public policy.

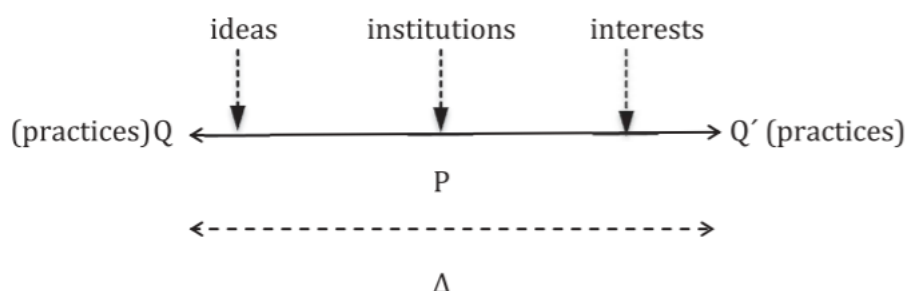
Both Peters (2017) and Alford and Head (2017) make a distinction between technical complexity, to which Rittel and Webber's conceptualization refers, and political complexity, which is the result of the involvement of multiple actors in wicked problems. Bannink and Trommel (2019), on the other hand emphasize factual complexity. They state that every involved actor has their own 'normatively preferred' solution for a problem justified with facts. These divergent facts are enabled by the factual complexity of the problem. The factual justification is then guided by the actor's normative judgement.

Another noteworthy framework is the problematicity framework proposed by Turnbull and Hoppe (2019). The authors criticize the concept of wicked problems, as introduced by Rittel and Webber, for being 'ambiguous'. Turnbull and Hoppe argue, much like Peters (2017), that the inability to precisely identify wicked problems, using the 10 characteristics, has led to convergence as to what qualifies as a wicked problem. They argue that the concept is "*flawed both in its original conception and in the subsequent interpretation of that conception*" (p.319) as Rittel and Webber never considered wickedness to be a scale but rather a strict ontological demarcation between tame and wicked problems, between natural and social science. And because the conceptual basis is flawed the literature that builds on that basis is also flawed. It is therefore not surprising that no scholar has succeeded in understanding exactly what wicked problems are as a category within policy problems, Turnbull and Hoppe say, as these scholars build on a concept that never regarded these problems as such.

Turnbull and Hoppe thereupon reject the notion of 'wicked problems' as a special class of policy problems and instead propose to reframe 'wickedness' into higher and lower levels of 'problematicity' in the structuring of problems. They posit that all political and policy problems are always unsolvable, as solutions are framed by the criteria set by stakeholders. Likewise, problems are social constructs defined by opinionated political and policy actors. Turnbull and

Hoppe, therefore, propose the Questioning-distance framework (Figure 6) as an alternative for understanding policy making.

Within this framework, Turnbull and Hoppe set out a new conceptualisation of wickedness along two lines. On the one hand problematicity: the degree of structure in a problem. On the other hand in terms of distance: which is, they say, primarily evident in political differentiation. Policy actors limit the scope of problems by excluding certain interpretations of the problems, thereby structuring the problem. However, this structuring becomes more difficult with increased political distance, which Turnbull and Hoppe base on actors' opinions about the definition and solution of the problem, their ideas and values, their interests (both as individual and as an organizational actor), and the 'institutional lines of demarcation and relative power'.



... for problem, P and political distance Δ

Figure 6: Questioning-distance framework (Turnbull & Hoppe, 2019)

Although Turnbull and Hoppe make a valid point regarding the ontological issues surrounding the concept of wicked problems, it does not have to be a reason to reject the concept all together as there is still value to be gained from it. As indicated by Termeer, Dewulf and Biesbroek (2019), the concept provides insight into cases where attempts to solve policy problems fail without the actors involved knowing why. In such cases, the knowledge that the problem contains a certain level of wickedness, and why, can help steer the approach to future attempts. Moreover, the concept can also be developed to be more analytical precise. The

ontological dichotomy does not have to be maintained, more sophisticated scales can be developed, such as those of Alford and Head (2017).

2.2.3 The politics of solvability

Altogether, the existing literature on the concept of wicked problems is versatile to say the least. Wicked problems seem to be as difficult to capture in a well-defined category of problems as they are to define in practice. More than 45 years after Rittel and Webber, scholars still do not seem to fully agree on when a problem truly is 'wicked' and to what extent. Nevertheless, over the last four decades, progress has been made in the development of the concept. Rittel and Webber never included the involvement of multiple actors in their characterisation of wicked problems. Yet the theme is reflected in 73 percent of the articles on the concept between 1999-2014. Moreover, in 60 percent of the articles the unsolvability of wicked problems is linked to the involvement of multiple actors (Danken, Dribbisch and Lange, 2016), which makes sense. After all, problems are social constructs: they are phenomena that are only referred to as 'problems' if they are interpreted as undesirable.

That being said, the type of actor involved that the literature so far, at least between 1999 and 2014, focused on is too broad. Problems are social constructs, but policy problems are mainly political constructs as the policy-making process, and especially decision-making, is inherently political. The actors involved in solving policy problems are, consequently, pre-eminently political actors. This political dimension will therefore be included in this research as a context factor for the solvability of (wicked) policy problems. Turnbull and Hoppe's (2019) notion of political distance between problem constructors will be an important determinant for this context. Yet, political distance in itself is not enough to make a policy problem unsolvable. Even then, eventually an agreement can be reached on a solution as long as the actors involved

are willing to compromise. I therefore propose adding political unwillingness to compromise as a contextual determinant of solvability, whereby political compromise is defined as: “*an agreement in which all sides make concessions in order to be able to act together, and in which the concessions are motivated by the presence of disagreement*” (Rostbøll, 2017, p.621).

I hereby make the assumption that the political context of a policy problem can also make non-wicked problems unsolvable, which will be tested in this research. The aim of this research is to explore the consequences of a hard Brexit on the provision of access to cross-border curative healthcare on the island of Ireland. The consequences depend on the solvability of the problems a hard Brexit causes for the access of cross-border curative healthcare. These problems do not seem to be wicked in themselves. First of all, they are definable. The policy problem that a hard Brexit causes for the provision of access to cross-border healthcare is the disintegration of EU legislation. Secondly, this can, therefore, logically be resolved by replacing this legislation with bilateral agreements to continue to guarantee the provision of access. That being said, the decision-making on this problem is subject to the Brexit debate. The expectation is that the political distance is increased by Brexit and that the willingness to compromise is low. The assumption is therefore that a hard Brexit causes problems for access to cross-border curative healthcare on the island of Ireland that cannot be solved, which would mean that as a consequence of hard Brexit, access to cross-border curative healthcare on the island of Ireland will be reduced.

In this research, the wickedness of the research problem will be analysed by means of the first level of the two-level framework by Alford and Head (2017). The reason that only the first level will be used for the analysis, is that their horizontal dimension, i.e. the extent to which involved actors affect the tractability of the problem, will instead be specified using the notion of political distance by Turnbull and Hoppe (2019). The second level of Alford and Head (2017) is not applicable, since it is built on the original dimensions of the first level. This is not

problematic for the research, as it only requires a general classification of problems. The political distance between the ideas and values of the actors involved is measured through political polarization and the political distance between their interests through political fragmentation. Turnbull and Hoppe also look at the distance between institutional lines of demarcation and relative power, but it is a vague concept not explained further. This will therefore be measured by whether or not one party has the majority in parliament as the principle of ‘tyranny of the majority’ shows that this is ultimately the balance of power that is relevant for decision-making. These three measurements of political distance are not ordered, but can be made into a scale. If a problem scores high on one of the three measurements - scoring high for a ‘lack of government majority’ means that there is no majority - then that equals ‘co-operative or indifferent relationships’ on Alford and Head's (2017) horizontal axis of the matrix. If a problem scores high on two of the measurements, it is equivalent to ‘multiple parties, each with only some relevant knowledge’. If a problem scores high on all three measurements, it is equivalent to ‘multiple parties, conflicting in values / interests’.

In addition, the political (un)willingness to compromise will be measured on the basis of the political culture. This includes the their political tradition and the general decision-making behaviour of MPs in the Brexit debate. As to their ‘political tradition’, the political willingness to compromise depends to a large extent on whether or not politicians are used to having to compromise. Duverger’s principle of ‘tyranny of the majority’ supposes that a party that has a majority in Parliament can put their own interests above the interests of others as they have a majority and thus do not need the others for decision-making (Hermens, 1958). Countries who have a tradition of single majority parties therefore have politicians that are less likely to be willing to compromise, even if they do not have a majority.

3 METHODOLOGY

In the previous chapter, I discussed the concept of the wicked problem to arrive at an expectation regarding the direction of the research question. Since this is a qualitative and not a quantitative study, no testable hypotheses have been drawn up, but a more general expectation has been expressed. This expectation is that as a consequence of a hard Brexit, access to cross-border curative healthcare on the island of Ireland will be reduced. This chapter will outline how I set out to research that.

The structure of this chapter will be as follows. First I will discuss the work approach chosen, consisting of the research, data collection and analysis method, with special attention for the justification of the research choices. I then I operationalize the variables of the research into measureable units, taking into account the validity and reliability of the measurement.

3.1 WORK APPROACH

3.1.1 Research method

In this qualitative research I aim to find out what the consequences are of a hard Brexit for cross-border curative healthcare on the island of Ireland. To this end, I conduct an ex ante evaluation using a single case study. The advantages of using a case study as an evaluation method are particularly twofold. First, a case study allows for the proper capturing of the complexity of the research case (Yin, 2003). Access to cross-border curative healthcare is provided by both EU legislation and national structures that not only overlap, but to some extent also interact with each other. Moreover, these national structures are bilateral and cover both the UK and the Republic. The Brexit will also have an effect on these national structures, one more than the other. In addition, after Brexit, cross-border cooperation takes place on the island

across an EU external border, since the UK will be a third country but the Republic will remain an EU member state. It is true that cross-border cooperation takes place more often on an EU external border, but in none of those cases was that border previously an EU internal border. All these factors, and the way they interact, must be included in the analysis to give a proper assessment of the consequences of a hard Brexit on access to cross-border healthcare on the island of Ireland, which increases the complexity of the research case. Second, a case study allows for sufficient attention to be given to contextual conditions that may interact with the case (Yin, 2003). As explained in the previous chapter, policy problems are inherently political and their solvability, at least that is the assumption, depends on its political context. Fossum (2019) stresses that Brexit has a highly normative dimension and breaks down the structuring principles of UK politics. Brexit is an extremely distributive subject that causes a lot of friction in the Parliament. May couldn't get her deal through and, with Boris Johnson as Prime Minister, the UK seems to be rushing to a 'no deal' Brexit. The research problem cannot and should not be viewed separately from this political context as this political context determines its solvability. That is why a case study is the most suitable for this research topic.

This case study only includes one case, that is, 'cross-border curative healthcare on the island of Ireland'. The generalizable power of a single case study is very low, lower than that of a multiple case study. However, the interest of this research does not lie in generalizing the results, but rather in exploring a very specific unique case. A single case study is highly suitable for this (Yin, 2003). The uniqueness of the research case arises from a combination of factors. Not only is the Brexit an unprecedented event, EU health policy that regulates cross-border healthcare has a peculiar legal basis. Moreover, the national structures providing access to cross-border curative healthcare on the island of Ireland are specific to that island. The same case study for two different countries would therefore already be very different. This is due to the island's history, which led to a rather unique political and constitutional situation for

Northern Ireland. Furthermore, certain parts of healthcare are provided on an island basis through all-island healthcare facilities. These facilities do not belong specifically to one of the two countries, but rather to both equally (British Medical Association, 2017). Taking these factors together, the research case has a certain uniqueness that justifies a single-case design (Yin, 2003). Furthermore, as the this case study includes only one case, this case is also the unit of analysis, as the case and unit of analysis correspond in a single-case study (Baxter & Jack, 2008).

3.1.2 Data collection

Data for this case study is collected with two qualitative methods of data collection, that is, through document review and through semi-structured in-depth interviews. Both data collection methods have different advantages and disadvantages. Document review offers non-responsive and stable data but is subject to the selectivity of the researcher. In-depth interviews, on the other hand, can provide a comprehensive overview of all related information so that no information is unintentionally left out, but interviewees can be biased in their answers. The document review will be the main source of data for the first two sub-questions and the last. These are descriptive in nature, so that more objective information has the preference. The in-depth interviews will be the main source of data for the third sub-question. Contrary to the others, this sub-question is evaluative in nature and therefore subjective expectations of experts are appropriate.

However, the data collected with these two methods of data collection are not separated from each other but are be combined. The research topic is rather unique and has no precedent. This means that information must largely be collected from scratch. The in-depth interviews provide support in answering the first two sub-questions with a comprehensive overview to create and identify all relevant aspects. More importantly, a huge advantage of combining these

two data collection methods is that both data and method triangulation can be achieved. Triangulation improves the reliability and validity of the research. Especially in a single-case design whereby certain events are rare, method triangulation can improve the validity of the research. Validity is a matter of whether the researcher actually measured what he or she needed to measure. External validity refers to the generalizability of the research, i.e. whether or not the findings of the research apply to other cases as well. This validity is generally very low in single-case studies, as it involves cases that are unique to a certain degree. However, this is not an issue as generalizability not necessarily pursued in this research.

Another form of validity is internal validity, which refers to the trustworthiness of the results. Internal validity is important to this research and thus is improved with triangulation. The results can corroborated and the weaknesses in the data, for instance the selectivity of the researcher in selecting the documents for the document analysis, can be compensated for with data collected in a different way, for instance the in-depth interviews. The reliability of a research lies in “*the consistency and repeatability of the research*” (Yin, 2003, p.240). This means that if later researcher carries out the exact same research, he or she should arrive at the same results (Yin, 2003). Reliability with in-depth interviews is questionable, since one could ask the same respondent in the same context the same question at a later moment and the answers could still be different. This is because respondents learn through time, which could alter their answers. However, this is compensated by the document analysis. One could analyse the same documents, in the same context, using the same themes and the results will still be the same. Documents are non-responsive and therefore do not change. To summarize, triangulation guarantees a certain level of reliability and validity of the research because, by collecting data from different sources and in different ways, the consistency of certain information can be guaranteed (Leung, 2015).

Document analysis as a data collection technique involves an analytical procedure whereby data from documents is found, evaluated and processed (Bowen, 2009). There is no pre-written approach to collecting the data since, as mentioned earlier, the research topic is relatively new, there is no precedent. The information must, therefore, in part be collected from scratch the outset. However, as both the UK and the EU are preparing for the Brexit, many preparatory documents have been published as Exit Day approaches. By regularly monitoring the publications of the UK, the Republic and the EU, and regularly conducting an internet search for papers and reports from independent institutes, these papers and reports can and have also been included in the documents analysis. In general, different types of documents have been analysed for the document analysis, including: EU policy documents, treaties, government reports, research papers, discussion papers, and scientific articles. These scientific articles serve as complimentary information on policy, EU law and bilateral agreements. In addition, when necessary, information was collected from websites, including government websites, EU websites, websites of healthcare providers and websites of health organizations. Table 4 (Appendix A) provides an overview the documents collected and analysed.

For the in-depth semi-structured interviews, eight interviews have been conducted over the course of a month with different kind of experts. Of these experts, five are scientific scholars, all from different fields and all with different expertise, one is the acting director of a cross-border research centre, and two are officers, one at an independent health think tank and the other at a cross-border health and social care partnership. More information on these experts and why they were selected can be found in Appendix B.

3.1.3 Analysis method

The obtained qualitative data is analysed by means of a content analysis. Content analysis is used to extract meaning from the content of textual data. It encompasses the coding of themes

and ideas and the selective reduction of text and information (Hsieh & Shannon, 2005). In this research, as the data had to be collected from a variety of places, the data collection process and the analysing of the data were interactive processes. Based on information collected in the preparatory phase, some general themes were defined, such as the 1998 Agreement, the CTA, the CAWT, reciprocal healthcare arrangements, EU funding, and so on. These themes guided the collection of the documents and, after a substantial amount of documents were collected and analysed, the questions of the in-depth interviews. However, while analysing the documents and conducting in-depth interviews, information regularly emerged that led to new related aspects and therefore to new documents and themes, so that the definite themes and their codes were not complete until the data collection was concluded. At the end, there were nine codes, i.e. 'cross-border healthcare reimbursement', 'cross-border cooperation', 'medical goods', 'health services', 'data movement', 'funding', 'cross-border rights', 'four freedoms', 'free movement of people' and 'politics'.

The collection of documents consisted of four types of documents: policy documents, informing documents, websites and scientific literature. The scientific literature was used in places where explanation was needed about certain legislation or legislative structures. The documents were, as they were collected, divided into four groups: documents concerning 'EU Health legislation', documents concerning 'national structures', documents concerning 'post-Brexit' information, such as WTO rules and what will change in existing structures, and documents for the 'theoretical application'. These documents were first scanned manually for the reason that, as explained before, the data collection and data analysis processes were interactive process. Moreover, some documents were indirectly related to a theme, something that happened more than once with 'post-Brexit' information documents and documents with the theme 'politics', wherefore a manual approach was needed to ensure that information was not overlooked.

However, after all data was collected, the documents used, except for websites and books, and the in-depth interviews, were then run through the qualitative analysis program Atlas.Ti to make sure that all codes were identified in all documents. This showed that some documents belonged to more than one theme (See Table 3 in Appendix A for the ordering of the documents under different themes). After going through each document, pieces of text were gathered concerning a certain theme, creating a concentrated collection of information which were then represented in chapters 4 to 7.

3.2 OPERATIONALIZATION

3.2.1 Independent variable

In the research question “*What are the consequences of a hard Brexit for the access to cross-border curative healthcare on the island of Ireland?*” the independent variable is ‘a hard Brexit’. By assuming the hardest possible Brexit the maximum measurable impact of Brexit can be measured. The maximum possible ‘hardness’ of a ‘hard Brexit’, based on current knowledge, was taken for this operationalization, which is institutional border infrastructure. This will be measured as the UK exiting the SEM and the Customs Union (Menon & Fowler, 2016). This could either involve going back to WTO rules or creating a brand new trade agreement, but that distinction will not be made at this stage yet.

3.2.2 Dependent variable

The research question also has one dependent variable, that is, ‘access to cross-border curative healthcare on the island of Ireland’. However, in order to arrive at a measurement of this

variable, a distinction must be made between two concepts: ‘access to cross-border healthcare’ and ‘cross-border curative healthcare’.

Access to cross-border healthcare

The part of the dependent variable that will actually be measured access to (cross-border curative) healthcare. This is a fairly abstract concept that will be operationalized using the measurement of access to healthcare by Gulliford, Figueroa-Munoz, Morgan, Hughes, Gibson, Beech & Hudson (2002). In their research, they define facilitating access as being concerned with helping people to command appropriate healthcare resources in order to preserve or improve their health. They argue that access to healthcare consists of three factors: the availability of services, the utilisation of services and the outcomes of services. However, Gulliford et al. focus in their research on literal access to healthcare, primarily aiming their attention to the individual level. This is not relevant for the current research as the focus here is on the institutional dimension of access to healthcare. Only the main components of the Gulliford et al framework that can be translated to the institutional level will therefore be used. In particular their distinction between ‘having’ access and ‘gaining’ access will be adopted in this research.

‘Having’ access is evident in the availability of services and implies, institutionally seen, a right to healthcare. However, in order to ‘have’ access to cross-border healthcare, it also needs to be present. The availability of services will therefore be measured both by the existence of arrangements and agreements that give citizens of the Republic and Northern Ireland the right to healthcare in each other's countries, and the presence of arrangements and agreements that enable the existence of cross-border healthcare on the island of Ireland.

‘Gaining’ access is evident in the utilisation of services and refers to the actual procedure of utilising the service. According to Gulliford et al. (2002), it can be divided into three factors, namely accessibility, affordability and the acceptability of services. However, only the accessibility of services and affordability of services can be translated to the institutional level, albeit the latter renamed.

Accessibility can be understood as either physical accessibility or the absence of organisational barriers to the utilisation of services (Gulliford et al., 2002). Physical accessibility points to the suitability of the location of the healthcare service based on the location and mobility of the patient and implies the absence of geographical and physical barriers to the utilisation of services. Just like indirect costs in the affordability of healthcare, physical accessibility is an issue at the individual level. It will therefore be omitted as a measurement of accessibility. Instead, an administrative replacement is taken. Physical accessibility of cross-border healthcare also has an administrative side that ensures that both patients and healthcare professionals can cross the border, which should be laid down in agreements. Accessibility is therefore measured on the basis of the existence of arrangements and agreements that facilitate the physical accessibility to cross-border healthcare on the island of Ireland.

The affordability of services is by Gulliford et al. (2002) measured using the direct and indirect costs associated with the utilisation of healthcare. Direct costs of healthcare are, for example, healthcare premium or medicines that are not covered. Indirect costs are the costs of traveling to the healthcare facility or the missed wage due to taking a day off for utilizing healthcare and so on. These indirect costs will be omitted from this research as they depend on individual characteristics. Only the direct costs of cross-border curative healthcare will be measured. Also, it will not be referred to as ‘affordability’ of services as affordability implies an individual purchasing power. Rather, it will be referred to as ‘insurance coverage’ for cross-

border services, which are the direct costs that can be regulated at the institutional level. This will then be measured by the existence of reciprocal healthcare agreements and arrangements between the Republic and Northern Ireland, either bilateral or multilateral.

As for the last measure of utilisation, in order to use healthcare one has to realise the need for healthcare and must be willing to use it. Services can be available, but when people do not accept those services, utilisation will be low. The acceptability of services therefore refers to a patients' recognition of their need of services, their experience and their attitudes with healthcare (Gulliford et al., 2002). Seeing that this is primarily a matter that depends on individual aspects, this factor of the utilization of services is omitted as a measurement.

Lastly, as to outcomes of services, according to Gulliford et al. (2002) access to healthcare can be seen in combination with the quality of healthcare. The services available must be relevant and effective if the population is to 'gain access to satisfactory health outcomes'. This is in line with Gulliford et al. (2002, p.186) saying that "*facilitating access is concerned with people helping to command appropriate healthcare resources in order to preserve or improve their health*". However, as to access to cross-border curative healthcare, health outcomes are not immediately a relevant measurement. Every country has their own standards and a difference between those two will not necessarily hamper access to cross-border healthcare. The outcomes of services will therefore also be omitted from this research.

Cross-border curative healthcare

In addition to operationalizing 'access to (cross-border) healthcare' it is also necessary to operationalize the concept of 'cross-border curative healthcare' for a proper measurement of the dependent variable. This was already done in the introduction. To recap, healthcare 'aimed at curing patients, provided in a Member State other than the Member State of affiliation'.

In order to come to a reliable assessment of the consequences that a hard Brexit has for access to this ‘cross-border curative healthcare’, three categories must be distinguished within the concept, as the consequences could possibly differ per category. The categories employed in this research will be secondary care, which refers to hospital care which is accessible with GP referral, tertiary care, which refers to specialist care, and emergency care, which refers to immediate necessary care in the event of serious health problems or incidents care (Grosios, Gahan & Burbidge, 2010).

These categories are based in part on the different categories of care into which the NHS can be divided, namely primary care, secondary care and tertiary care. Primary care, which refers to GP’s, dentists, pharmacists etcetera (Grosios, Gahan & Burbidge, 2010), is in this research regarded to be a category of healthcare where a hard Brexit mainly causes problems at the individual level rather than the administrative level. Primary care is therefore omitted as a category of cross-border curative healthcare in this research.

Furthermore, emergency care was added as an category. Emergency care is ordinarily seen as part of secondary care, as ambulances bring patients to hospital where they are treated in the emergency department of that hospital. However, looking at the administrative level, cross-border emergency care relies on more EU legislation than cross-border secondary care. Where cross-border secondary care is mainly concerned with the movement of the patient, cross-border emergency care is concerned with the movement of both the patient and the healthcare professional. Thus, cross-border emergency care is dependent on EU legislation that enables both the movement of both parties, whereas cross-border secondary care is mainly dependent on EU legislation that enables the movement of the patient. In line with this argumentation, secondary care and tertiary care have been maintained as two separate categories. The two categories of healthcare have institutionally similar characteristics as tertiary care facilities are often essentially specialist hospitals. They are nevertheless considered to be separate categories,

as tertiary care projects on the island of Ireland often receive substantial amounts of funding from the EU (Interreg EU, n.d.) and both the Republic and Northern Ireland (Western Trust, n.d.).

Measuring access to cross-border curative healthcare

Putting the operationalisation of ‘access to cross-border healthcare’ and ‘cross-border curative healthcare’ together, the dependent variable ‘access to cross-border curative healthcare’ can be operationalised by the ‘availability of secondary, tertiary and emergency care’, and ‘the accessibility of secondary, tertiary and emergency care’. This will be measured with ‘the existence of arrangements and agreements that give citizens of the Republic and Northern Ireland the right to healthcare in each other's countries’, ‘the presence of arrangements and agreements that enable the existence of cross-border healthcare on the island of Ireland’, ‘the existence of arrangements and agreements that facilitate the physical accessibility to cross-border healthcare on the island of Ireland’, and ‘the existence of reciprocal healthcare agreements and arrangements between the Republic and Northern Ireland, either bilateral or multilateral’. Each of these four measurements will consist of a general measurement, as well as separate measurements for secondary, tertiary and emergency care.

4 STRUCTURES AND LEGISLATION THAT PROVIDE ACCESS TO CROSS-BORDER CURATIVE HEALTHCARE ON THE ISLAND OF IRELAND

This chapter will be the first of the four analysis chapters and will be devoted to answering the first sub-question ‘Which legislation and other structures exist on EU and national level that provide access to cross-border curative healthcare on the island of Ireland?’, subdivided into an EU section and a national section. However, before doing so, I will first explain the interaction between these two administrative levels regarding the provision of access to cross-border healthcare, as it provides important information regarding the effect of a hard Brexit on this provision. Together with chapter 5, this chapter aims to establish the full extent of the research problem.

4.1 THE INTERACTION BETWEEN EU HEALTH LEGISLATION AND NATIONAL STRUCTURES

Access to cross-border curative healthcare on the island of Ireland is provided for by both legislation on the European level and on the national level. EU health legislation is somewhat peculiar given the competences the EU has. In fact, it is even contradictory in terms of its legal nature (Mossialos, Baeten, Permanand, & Hervey, 2010), as healthcare provision is a competence reserved for Member States and not the EU. Article 168 (7) of the Treaty on the Functioning of the EU (hereafter ‘TFEU’) clearly states that “*the definition of their health policy and (...) the organisation and delivery of health services and medical care*” are responsibilities of the Member States, which must be respected by the EU. Put differently, national legislation of a Member State prescribes the healthcare that its citizens are entitled to and how that

healthcare is provided for and financed. Accordingly, the Health Secretary of the UK and the Irish Minister for Health hold responsibility for the National Health Service (NHS) and the Health Service Executive (HSE) respectively. In terms of cross-border healthcare, this means that a patient from another Member State is subject to local standards for healthcare. Yet, almost every aspect of healthcare in the EU is regulated to a greater or lesser extent by extensive body of EU (health) legislation. This body of health legislation stems from the EU's competences with regard to the internal market, which I will discuss in more detail in the next section.

4.2 EU HEALTH LEGISLATION

As just explained, EU healthcare legislation stems from its competence with regard to the internal market. The specific legal basis of this lies in Article 26 of the TFEU, which stipulates that the internal market is an EU competence. The EU may therefore adopt legislation on healthcare if it ensures the functioning of the market and removes barriers to its associated four freedoms, regardless of how Member States organise and finance their healthcare (Baeten, Vanhecke, & Coucheir, 2010). These freedoms thus provide the legal basis for EU Health legislation, which technically is internal market legislation, as a result of which the EU shapes the environment in which health services function.

The four freedoms of the SEM seek to ensure the free movement of people, goods, services and capital within that market. The free movement of capital does not provide an important legal basis for EU health legislation and will therefore not be elaborated on further. Under the free movement of people, EU citizens have the right to "*move and reside freely*" within the EU (Article 21 TFEU). Together with the freedom of residence, the free movement of people is the foundation of EU citizenship (European Parliament, n.d.,a). The free movement of goods is closely linked to the EU's Customs Union. This freedom implies that goods

originating in the Member States and goods coming from third countries which are in free circulation in the Member States may move freely across the internal market and may be offered on the national markets of all other Member States. In order to establish this free movement of goods, the Customs Union eliminated all customs duties and quantitative restrictions within the internal market (Article 28 and 30, TFEU). The free movement of goods and services together establish a free trade area in the EU, which is a vital aspect of the internal market. The free movement of services means that EU citizens have the freedom to provide services in all EU Member States. In order to provide the service, a person “*may temporarily pursue his activity in the Member State where the service is provided, under the same conditions as are imposed by that State on its own nationals*” (Article 57 TFEU). Several rulings of the European Court of Justice (ECJ)⁵ set the precedent that, according to Article 57 of the TFEU, health services are also economic activities as they are services that are “*normally provided for remuneration*”. Health services are, thus, subject to the principle of the free movement of services, which also includes the freedom to receive healthcare throughout the EU (Baeten, Vanhecke, & Coucheir, 2010; Hatzopoulos, 2002). In order to guarantee this free movement of services, the EU has adopted Directive 2005/36/EC, which will be discussed more elaborately later on, on the recognition of professional qualifications in healthcare so that all medical qualifications within the EU meet the local standards of each Member State.

This section will continue with discussing this Directive and the other directives and regulations that, with the aim of guaranteeing the internal market, form EU Health legislation. Some will be discussed as a group, such as medical goods legislation, others individually, such as the Cross-border Healthcare Directive. At the end of the section, EU Regional Policy will

⁵ Amongst others: Case C-158/96, Raymond Kohll v. Union des caisses de maladie, Judgment of 28 April 1998 and Case C-120/95, Nicolas Decker v. Caisse de maladie des employés privés, Judgment of 28 April 1998; Case C-157/99, B.S.M. Geraets-Smits v. Stichting Ziekenfonds VGZ and H.T.M. Peerbooms v. Stichting CZ Groep Zorgverzekeringen, Judgment of 12 July 2001

also be discussed as the legislative basis for EU financing of cross-border healthcare projects. Although EU Regional Policy is not legally based on the four freedoms, it aims to overcome internal barriers by harmonizing the internal market and addressing regional imbalances.

4.2.1 Regulation 883/2004 on Social Security Rights

Regulation 883/2004/EC⁶ is an example of EU legislation aimed at guaranteeing the free movement of people and does so by providing access to cross-border healthcare. This regulation coordinates social security entitlements and puts in place a reimbursement system for healthcare costs. In doing so, it increases patient mobility and ensures the equality of treatment under the different national social security systems in the EU (Palm & Glinos, 2010). This regulation focuses on EU citizens who travel to or reside in another Member State and who are forced to seek cure in that other Member State. One of the basic ideas behind this regulation is that EU citizens are entitled to the same healthcare in other EU Member States as the citizens of those Member States. It contains three arrangements, or schemes, that provide access to cross-border curative healthcare. The first is the European Health Insurance Card (EHIC), which provides citizens who temporarily stay in another Member State, for example for holidays, with access to immediately necessary state-provided healthcare. A second arrangement is the S1 form, also called the S1 Scheme. This form is intended for citizens who live permanently in another Member State. The S1 form provides these citizens with access to healthcare as entitlement to reciprocal healthcare is considered to be an exportable benefit. The last arrangement is the S2 form, also called the S2 Scheme, which is relevant for citizens travelling to other Member States with the purpose of receiving healthcare. Under the S2 form, citizens can access specialist healthcare in the other Member States when the Member State of affiliation cannot provide

⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02004R0883-20130701&from=GA>

them with that care within a medically justifiable time. With this procedure, patients need to receive authorisation prior to treatment and are entitled to benefits according to the legislation of the Member State of treatment. The Member State of affiliation arranges the payment directly with the Member State of treatment according to the reimbursement tariffs of the Member State of treatment (European Union Committee, 2018).

The fundamental basis of Regulation 883/2004 is an entitlement to financial benefits, which is why it sets up financial arrangements for the reimbursement of cross-border healthcare. This makes particular sense for cross-border healthcare between Member States that both work with cash-based health systems, such as the classical social insurance ‘Bismarck’ systems (Fahy, personal communication, June 27, 2019). However, ‘Beveridge’ health systems, as you find them in the UK and the Republic, are not cash-based but provision-based. These systems are mostly publicly financed through taxes and are based on public delivery (Bidgood, 2013). To accommodate these systems, Regulation 883/2004 contains the opportunity for Member States to put other agreements in place that allow for the provision and entitlement of benefits directly and are, therefore, not cash-based. The UK and the Republic have something similar to such an agreement, the Common Travel Area (CTA), which will be discussed in detail later. Due to this CTA, British citizens on temporary stay in the Republic of Ireland, and vice versa, do not need an EHIC to access healthcare services (NHS, n.d., a). That being said, Regulation 883/2004 and, as I will discuss next, Directive 2011/24/EU still provide the main legal basis for the reimbursement of reciprocal healthcare on the island of Ireland as the CTA is not laid down in any formal agreement.

4.2.2 Directive 2011/24/EU on Patients' Rights in Cross-border Healthcare

Directive 2011/24/EU⁷, or the Directive on Patients' Rights in Cross-border Healthcare, also deals with the reimbursement of healthcare received in another Member State, but then with the aim of guaranteeing the free movement of services and goods. Also referred to as the Cross-border Healthcare Directive, it provides a legal framework for healthcare cooperation which allows Member States to exchange information and collaborate on standards and guidelines for quality and safety in healthcare. As to reimbursement, the Directive provides that citizens, who are entitled to a certain health service under the statutory health system of the Member State of affiliation, are also entitled to the reimbursement of that health service in another Member State, thereby indirectly contributing to patient mobility. Several rulings of the ECJ⁸ decided that the freedom of services also includes the freedom to receive services in another Member State. Reimbursement is in this case based on the amount the treatment would have costed in the Member State of affiliation. Patients need to pay the treatment upfront and may apply for reimbursement afterwards.

Directive 2011/24 furthermore allows Member States to lay down rules that oblige patients to request Prior Authorisation for treatments, as set out in article 8, that require at least one overnight stay at a hospital, specialised care treatment and high risk care treatments. Other treatments do not need prior authorisation. Table 2 gives a small overview of the reimbursement of cross-border healthcare under Directive 2011/24/EU in the Republic and the UK in 2017. The table shows data on the amount of requests received and the amount of requests authorised. Non-authorised requests were either refused, which only happened in an insignificant amount of cases, or withdrawn.

⁷ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0045:0065:EN:PDF>

⁸ In particular Joined Cases C-286/82 and C-26/83 *Luisi and Carbone*: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61982CJ0286&from=EN>

The patient flows between UK and the Republic under Directive 2011/24/EU are the most significant flows between any Member States in 2017 (European Commission, 2019). What is striking is that almost half of the requests from all Member States for reimbursement under prior authorization come from the Republic, a number which is far lower in the UK. Moreover, citizens from the Republic apply for reimbursement much more often under Directive 2011/24/EU for treatments in the UK than vice versa. The numbers for reimbursement of treatment without prior Authorisation are far less significant. This may be explained by the fact that these citizens have a right to healthcare in each other's country under the CTA, as will be discussed in a later section. After all, under the CTA these citizens also do not need an EHIC, which is meant for rather impromptu, non-planned, healthcare abroad. It might therefore be that British and Irish citizens have to rely less on treatment without prior authorisation under Directive 2011/24/EU as they will be reimbursed for it under the CTA. However, it is difficult to determine this precisely as since the CTA is not laid down in a formal structure, but, again, this will be further discussed later.

What is important in any case to note from the table is that Directive 2011/24 / EU seems to be more important for the reimbursement of cross-border healthcare in the UK than vice versa. The impact of the disintegration of this directive may therefore be greater for the Republic than for Northern Ireland. While the data does not reflect the proportion of UK reimbursement requests coming from Northern Ireland, the authorised requests from the Republic for treatment in the UK are far greater than the authorised requests from the UK to the Republic. Therefore, even if the total amount of authorised requests from the UK all originate from Northern Ireland, the amount of authorised requests from Northern Ireland would still be less than from the Republic.

Table 2: Cross-border reimbursement for treatments based on Directive 2011/24/EU for 2017 (European Commission, 2019)					
	All Member States	Republic		UK	
	#	#	% of all	#	% of all
Prior Authorisation					
Requests	2.874	1.317	45,82%	431	14,99%
Authorised	1.864	706	53,61%	321	74,48%
		617 of which in UK (87,39% of authorised treatment)		206 of which in the Republic (47,79% of authorised treatment)	
Aggregated amount reimbursed	€5.093.117,87	€3.532.047,96	69,35%	€1.046.247,00	20,54%
No Prior Authorisation					
Requests	235.541	4.266	1,81%	2.040	0,86%
Authorised	203.553	2.011	0,98%	1.073	0,53%
Aggregated amount reimbursed	€44.775.716	€4.433.642	9,90%	€1.431.381	3,19%

Next to the reimbursement of treatment, Directive 2011/24 also provides for the reimbursement of medicines and medical devices, on the basis of the free movement of goods, through the mutual recognition of prescriptions. This was implemented by Directive 2012/52/EU⁹ and holds that EU citizens can purchase medical products and medical devices in Member States other than the Member State in which the prescription was issued.

⁹ https://eur-lex.europa.eu/eli/dir_impl/2012/52/oj

4.2.3 Legislation on the free movement of health related goods

In addition to the reimbursement of medicines and medical devices, the free movement of goods is also safeguarded by a number of other legislation regulating amongst others pharmaceuticals, such as Directive 2004/27/EC¹⁰ and Regulation (EC) No 726/2004¹¹, and medical equipment and medical devices, such as Regulation (EU) 2017/2185¹², Regulation (EU) 2017/745¹³, Regulation (EU) 2017/746¹⁴, Directive 90/385/EEC¹⁵, Directive 93/42/EEC¹⁶ and Directive 98/79/EC¹⁷. It also regulates blood, such as with Directive 2004/33/EC¹⁸, Directive 2005/61/EC¹⁹ and Directive 2009/135/EC²⁰, organs, such as with Directive 2010/45/EU²¹ and Directive 2012/25/EU²², and human tissue, such as with Directive 2004/23/EC²³, Directive 2012/39/EU²⁴, Directive (EU) 2015/565²⁵ and Directive 2015/566/EC²⁶, to secure its quality and safety. And these are only a few. The EU has a whole body of legislation that more or less regulates all health-related goods to ensure regulatory alignment and a standard of quality. The reason for this is the same as the reason for the alignment of regulations for regular goods with the internal market. Aligning regulation enables the existence of open borders (De Mars et al., 2017). Many of the goods covered under this body of legislation are present in the ambulances that cross the border in the context of cross-border emergency care. Without the alignment of

¹⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004L0024&from=EN>

¹¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004R0726&from=EN>

¹² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R2185&from=EN>

¹³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0745&from=EN>

¹⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0746&from=EN>

¹⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31990L0385>

¹⁶ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1993L0042:20071011:en:PDF>

¹⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:1998:331:FULL&from=EN>

¹⁸ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:091:0025:0039:EN:PDF>

¹⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32005L0061&from=EN>

²⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0135>

²¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010L0053&from=EN>

²² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010L0053&from=EN>

²³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32004L0023>

²⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012L0039&from=EN>

²⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L0565&from=EN>

²⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L0566&from=EN>

regulations of these goods, ambulances would not be able to take their medical equipment with them across the border.

4.2.4 Directive 2005/36/EC on the recognition of Professional Qualifications

Another important piece of EU health legislation is Directive 2005/36/EC²⁷. Before this Directive, the regulation of recognition of professional qualifications within the EU was spread over several, mainly sector-based, directives. The recognition of qualifications for healthcare professionals was regulated by ‘Doctor’s’ Directive 93/16/EEC²⁸. Directive 2005/36/EU replaces all of these in one general directive to simplify the technical procedures of diploma recognition and thus to further decrease the barriers to both the free movement of services and people (Peeters, 2005).

In general, Directive 2005/36/EU establishes a general system of automatic diploma recognition and coordinated rules concerning the exercise of a profession. It does so by harmonizing minimal training requirements (Mossialos et al, 2010). However, the recognition of the qualifications of healthcare professionals in the pursuit of cross-border service provision are slightly more restricted. For any other profession, Directive 2005/36/EU prescribes that no restriction of services may take place on ground of professional qualifications. However, healthcare professionals were explicitly not included in this principle. For them the rules under the old Doctor’s Directive still apply, which means that future medical specialties, thus not the ones already recognized under the old directive, will only be included in the automatic recognition of qualifications if and when that specialty is recognized in at least ‘2/5th’, i.e. 40 percent, of the EU Member States on that moment. If a specialty does not meet this requirement, the ‘host Member State’, that is, the Member State in which the profession is pursued, can take

²⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32005L0036>

²⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31993L0016&from=EN>

compensatory measures. This does not mean that certain medical qualifications can simply be refused on the basis of national rules. Those cases need to be assessed by the ECJ whereby a judge balances the interest of public health with guaranteeing the freedoms of the SEM (Peeters, 2005).

4.2.5 Free movement of data

As stated before, almost every aspect of healthcare in the EU is one way or another to some extent regulated by EU law. A good example of the extent to which this is happening is EU law on data protection and public procurement. For each of the four freedoms, the free movement and protection of data is vital. The primary piece of legislation in this regard is the Regulation (EU) 2016/679²⁹. This Regulation repealed earlier Directive 95/46/EC³⁰. Directives need to be transposed into national law and although the EU sets out certain objectives that need be achieved, Member States have a certain freedom to decide how they want to do that (Greer, Hervey, Mackenback and McKee, 2013). This led to rather heterogenic regulations of data across different Member States, which more than once led to obstacles to data sharing. Regulation 2016/679 is meant to end this heterogeneity and to facilitate the barrier-less free movement of data within the EU (Andersen & Storm, 2015). Because it is a regulation, its content is binding in its entirety and directly applies to all Member States (Greer et al., 2013). There is, therefore, no need for transposition, which prevents heterogeneity in national data legislation from being a barrier to the ‘free movement’ of data.

The movement of data is also an important part of cross-border healthcare. However, compliance with data protection and procurement legislation can be quite challenging in this field (European Commission, 2004). To prevent this from hampering access to cross-border

²⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=NL>

³⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31995L0046&from=en>

healthcare, the EU therefore set up an eHealth network under Directive 2011/24 (Article 14) in which Member States cooperate in the exchange of medical data. It is a voluntary network that includes both the Republic and the UK (European Commission, n.d. b). This facilitates easier cross-border healthcare under data protection and procurement legislation. Currently, the EU is also working on implementing the eHealth Digital Service Infrastructure (EHDSI), which will enable the exchange of ePrescriptions and Patient Summaries via a special type of infrastructure (European Commission, n.d., c), but only the Republic is part of this.

Two main cases in which the movement of data is vital for cross-border healthcare on the island of Ireland are the movement of human ‘goods’ such as blood, organs and human tissue. De Mars (personal communication, June 20, 2019) exemplified this with a kidney in Northern Ireland which has to be transported to a hospital in the Republic. Getting the kidney across the border into the Republic is one thing, getting the data about that kidney across the border the second. Data such as whose kidney it was, medical data of that previous owner and who the kidney is meant for needs to be transferred from one hospital computer to another. The other case is when a patient who usually is treated in a facility – such as an hospital – on one side of the border, crosses the border and receives treatment in another facility. In such instances, the medical record of the patient needs to be transferred from facility to facility across the border. However, if a patient crosses the border to receive healthcare in a facility where that patient is usually treated, then the medical records are already on the right side of the border and does not need to ‘move’. In practice, the movement of data across the border, therefore, is somewhat limited in cross-border healthcare.

4.2.6 EU funding for cross-border projects

EU legislation regulating the four freedoms have a more or less direct impact on cross-border curative healthcare. However, there is also EU policy that has a more indirect effect by

encouraging cross-border cooperation, through investments in cross-border cooperation projects. As emphasized by McCall, EU funding is vital for cross-border cooperation on the island of Ireland (personal communication, June 17, 2019).

The EU's main investment policy is Cohesion Policy, which is enshrined in Article 174 of the TFEU. It aims to strengthen economic and social cohesion in the EU by promoting and supporting harmonious development its regions. In the words of De Mars "*Cohesion Policy is more about getting communities in different countries or regions to work more closely together*" (personal communication, June 20, 2019). Part of the EU's Cohesion Policy is EU Regional Policy, which is specifically aimed at overcoming issues that arise from the existence of a border (European Commission, n.d., F). Its main financial resource is the European Regional Development Fund (ERDF) (European Commission, n.d., d), which, on the island of Ireland, mainly finances the European Territorial Cooperation (INTERREG) programme (European Commission, n.d., E) and the PEACE programme (European Parliament, n.d., B). The ERDF is specifically provided for by Article 176, which states that the fund is "*intended to help redress the main regional imbalances in the Union through participation in the development and structural adjustment of regions whose development is lagging behind and in the conversion of declining industrial regions*". Furthermore, the basic provisions of the ERDF are laid down in Regulation (EU) 1303/2013³¹. According to the website of the European Commission, the ERDF has a budget of over €350 billion for the funding period of 2014 to 2020 (European Commission, n.d., a).

Of the two funding streams, INTERREG is most important for the provision of cross-border cooperation in healthcare on the island of Ireland. Projects funded focused on cross-border cooperation in curative healthcare are rarely financed by PEACE. INTERREG is a EU-

³¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1301&from=EN>

wide funding programme and is, as emphasized by three of the respondents, is very important, especially for the CAWT programme (McCall, personal communication, June 17, 2019). From 1991 onwards, the INTERREG Programme has put roughly €1.13 billion into the region of Northern Ireland and the Republic. The CAWT, which is, as will be discussed later in the analysis, a voluntary partnership between the Health and Social Care Services in Northern Ireland and Republic, received funding on many accounts from the ERDF. Their 2007-2013 INTERREG IV A programme “Putting Patients, Clients and Families First”, which constituted of twelve different strands of work and a €30 million budget, received a €22,5 million investment from the ERDF (European Commission, 2015).

The current programme in the region (and Scotland), INTERREG VA, has a total budget of €283 million. Of this, €240 million, or 85%, is invested by the ERDF and roughly €43 million, or 15% is match-funded by both the Northern Ireland Executive and the Government of the Republic (Interreg EU, n.d.). The legal basis of INTERREG VA is laid down in Regulation (EU) 1303/2013³² and Regulation (EU) 1299/2013³³. There are eight thematic objectives for the projects under INTERREG VA, among which “Through collaboration on a cross-border basis, to improve the health and well-being of people living in the region by enabling them to access quality health and social care services in the most appropriate setting to their needs” (Interreg EU, n.d.). One of its main projects in terms of cross-border curative healthcare on the island of Ireland for the 2014-2020 period, is the “Connecting Services, Citizens and Communities – Acute services” project. The goal of the project is to “increase acute episodes of care to patients, through improved / reformed service delivery on a cross-border basis” (CAWT, n.d.). The aim of this, and many other, project(s) within INTERREG VA is to provide healthcare as close to home as possible, which, due to the rurality of the border

³² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1303&from=EN>

³³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1299&from=EN>

areas, enhances the access to healthcare (McCrory, personal communication, June 28, 2019). The project has a total budget of €11.3 million, of which €9.6 million is funded by the EU (Keep.eu, n.d.). This money is used to train paramedics to Masters level so they can work as independent practitioners and treat patients in their own home. This way, less people have to go to hospital. The project takes place in highly rural areas and, by not making patients unnecessarily travel to hospitals, enhances the effectiveness of healthcare provision.

4.3 NATIONAL STRUCTURES

Whilst EU legislation affects healthcare, the EU's precise role and importance for cross-border healthcare cooperation on the island of Ireland is debated. Although many obstacles to cross-border cooperation have diminished or disappeared with the creation of the SEM and the associated disappearance of the physical boundary (Diez & Hayward, 2008), cross-border cooperation on the island truly commenced with the 1998 Agreement, not with the creation of the SEM in 1992. Being institutionalised by this agreement, cross-border cooperation between Northern Ireland and the Republic is first and foremost a means for peace. The EU supports this peace process by funding cross-border cooperation between the two countries (Hayward, 2006), but the basis of cross-border cooperation lies primarily in national structures of the Republic and the UK. Still, these overlap with the EU's legal framework as the EU provides an overall mechanism in which national structures provide cross-border healthcare. The next section will therefore not only describe which national structures enable cross-border healthcare, but also how these structures overlap with EU legislation.

4.3.1 Common Travel Area

One very important structure for cross-border healthcare on the island of Ireland is the CTA (European Union Committee, 2018), a special travel zone which predates EU membership. Essentially, the CTA is the result of coordinated immigration rules whereby British and Irish citizens are not officially recognized as 'foreigners'. This coordination of immigration rules, albeit not officially not laid down in an agreement, comes down to a mutual exemption from immigration rules. This exemption is enshrined in UK law with the Ireland Act of 1949³⁴, which states that “*The Republic of Ireland is not a foreign country for the purposes of any law in force in any part of the United Kingdom*”. In the Republic, this exemption is laid down by law with the Aliens (Exemption) Order of 1999³⁵, which exempts “*every person who is a citizen of the United Kingdom of Great Britain and Northern Ireland*” from the provisions of the Aliens Act of 1935 (No. 14 of 1935)³⁶, The Interpretation Act of 1937³⁷, the Immigration Act of 1999³⁸ and every order regarding “aliens” made under section 5 of the Aliens Act before the making of the Aliens (Exemption) Order.

Though the CTA pre-dates EU membership, it has been underwritten by EU law through Protocol 20 ‘on the application of certain aspects of article 26 of the treaty on the functioning of the European Union to the United Kingdom and to Ireland’³⁹. This protocol allows the UK and the Republic of Ireland to “*make arrangements between themselves relating to the movement of persons between their territories (“the Common Travel Area”), while fully respecting the rights of persons referred to in Article 1, first paragraph, point (a) of this Protocol*”.

³⁴ <http://www.legislation.gov.uk/ukpga/Geo6/12-13-14/41>

³⁵ <http://www.irishstatutebook.ie/eli/1999/si/97/made/en/print#>

³⁶ <http://www.irishstatutebook.ie/eli/1935/act/13/enacted/en/print.html?printonload=true>

³⁷ <http://www.irishstatutebook.ie/eli/1937/act/38/enacted/en/print.html>;

³⁸ <http://www.irishstatutebook.ie/eli/1937/act/38/enacted/en/print.html>

³⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A12012E%2FPRO%2F20>

Given that the citizens of the Republic and the UK are legally not recognized as foreigners in each other's country, they consequently have a number of indirect 'associated' rights. These rights include "the right to enter and reside in each other's state without being subject to a requirement to obtain permission", "the right to work without being subject to a requirement to obtain permission", "access to social welfare entitlements and benefits" and "access to health services" (De Mars, Murray, O'Donoghue, & Warwick, 2018, p.17). At the centre of the CTA lies the right to enter and reside within the area of the CTA without having to apply to visa requirements. Both the Republic and the UK opted out of the Schengen Area in order to protect the CTA from any changes within and amongst Schengen countries (De Mars, Murray, O'Donoghue & Warwick, 2016). In theory, the CTA thus provides unrestricted travel in the CTA zone for Irish and UK citizens. In practice, however, immigration controls require these citizens to carry personal documentation (De Mars et al. 2018). It is also important to note that the CTA is not a common trade area for goods or services (De Mars, Murray, O'Donoghue, & Warwick, 2017).

Of all associated rights, the right to enter and reside without visa requirements is the most stable one as it is a direct result from the immigration exemptions. The other associated rights, however, do not have a direct legal basis but consist of a network, or "hotchpotch" or related bilateral, mostly unofficial, agreements. This has proven to be highly ambiguous. For example, both the UK and the Irish government have stated that the CTA includes the right to work (Department for Exiting the EU, 2017; Department of Foreign Affairs and Trade, n.d.). Theoretically, this could be true, as the exemption from immigration legislation indirectly leads to an exemption from restrictions on domestic work that apply to legal entities subject to immigration legislation. Along these lines, the CTA essentially facilitates work-related traffic from the Republic and Northern Ireland to each other's countries (De Mars et al, 2018).

Yet, even though the exemptions from immigration legislation in theory should facilitate the right to work, the CTA technically does not confer this right, as claimed by the Institute of International and European Affairs (IIEA). In their 2017 Brexit status report they state that *“because Protocol 3 of the Accession Treaty of 1972, covering the Crown Dependencies, did not include free movement of work for EU nationals (including British and Irish) to the island, nor free movement rights for islanders, other than to the UK, unless they held British citizenship through a connection with the UK”* (O’Ceallaigh et al., 2017, p.31). The Crown Dependencies, consisting of the Channel Islands (the Bailiwicks of Jersey and Guernsey) and the Isle of Man, are not part of UK jurisdiction and do not have representation in UK Parliament. Their relationship with the UK is not embedded in a formal constitutional document, but maintained through the Royal House. When the UK decided to join the EU, the Crown Dependencies decided not to. Protocol 3 of the Accession Treaty of 1972 served to allow the special relationship between the UK and the three Crown Dependencies without the latter having to join the EU (European Union Committee, 2017). As the Crown Dependencies are part of the CTA, the IIEA argues that if the right to work would have been part of the CTA, it should have been included in this Protocol (O’Ceallaigh et al., 2017). It might, therefore, be that, legally seen, citizens from the Republic and Northern Ireland do not actually have the right to work in within the CTA.

Yet, despite this ambiguity, the associated rights under the CTA never required clarification as they correspond to rights under EU citizenship. This is also exemplified by the right on access to social security provision under the CTA. Just as the right to work, both the government of the Republic and the UK claim that the CTA confers the right on access to social security provision (Department for Exiting the EU, 2017; Department of Foreign Affairs and Trade, n.d.). Yet, this right has only been legally provided by the EU legislation coordinating reciprocal social security. To clarify, social security benefits are part of residency in domestic

law. As a right to residency is a direct result of the immigration exemption, the CTA implies a right to social security benefits. However, taking the UK as an example, most of these social security benefits are completely residence-based. Of those benefits that can be claimed while being resident in the Republic, access to them are largely regulated by EU law on social security coordination. In the Republic too are some benefits that are residence-based while others are not. Yet, the exact social security rights that require habitual residence in the Republic do not necessarily match those in the UK (De Mars et al, 2018). Hence, the reciprocal rights on social security under the CTA are not aligned between the two respective countries and therefore do not have a steady legislative base.

The last relevant example of ambiguity surrounding CTA associated rights is the right of access to healthcare services. This right does, in principle, not relate to the access to cross-border healthcare. Yet, as a result of the exemption from immigration laws, Irish and British nationals in each other's country are subject to the same rules as nationals while residing there. A key factor for the NHS and NSE for reimbursement of healthcare under the associated CTA right is, therefore, that the person is resident in the country in question. Admittedly, Irish and UK citizens who only visit the other country also have access to health services under the CTA, but the actual mechanisms enabling this access are not laid down in the domestic sphere. Rather, this mechanism is provided for by EU legislation (De Mars et al, 2018).

4.3.2 The 1998 Agreement

A vital agreement for cross-border cooperation on the island of Ireland is the 1998 Agreement, which created a constitutional framework for Northern Ireland with a strong cross-border dimension. This peace agreement contains somewhat of a compromise between the two main parties of the conflict, the unionists and the nationalists. It consists of three mutually reinforcing strands that reformed the political landscape of Northern Ireland. The unionists were met with

strand one in which the political status of Northern Ireland was acknowledged by the Republic for the first time (Tannam, 2001). This strand is predominantly federal in character and institutionalised power-sharing between unionists and nationalists through the establishment of a devolved consociational government in Northern Ireland (Horgan, 2006; O'Leary, 2001). Nationalists were met with strand two, in which cross-border cooperation was institutionalised by setting up a North-South Ministerial Council (NSMC). As explicitly stated by the 1998 Agreement, these first two strands are mutually interdependent and rely on each other for proper functioning (O'Leary, 2001). Lastly, the third strand also established a confederal relationship, though much weaker than the NSMC. This strand established a British-Irish Council (BIC) to promote the relationships between all the islands of Britain and the Republic. Just as with the NSMC, health is one of its work areas, albeit much smaller and less focussed on health cooperation between Northern Ireland and the Republic (Tannam, 2001).

The relevance of the 1998 Agreement for access to cross-border curative healthcare lies in the NSMC, which unites the Irish Government with those with executive responsibilities in Northern Ireland in a political decision-making body for the island of Ireland. Its main aim is to promote and develop all-island, cross-border co-operation (O'Leary, 2001; Teague & Henderson, 2006). The NSMC oversees six fields of cooperation, among which health. More precisely, the Council focusses on accident and emergency planning, major emergencies, cancer research, co-operation on high technology equipment and health promotion (North South Ministerial Council, n.d.,a). It also plays an important role in cooperation in areas such as professional and client/patient mobility initiatives, and oral and maxillofacial services (McCrory, personal communication, June 28, 2019).

To implement the objectives of the NSMC, the 1998 Agreement also made provision for six institution that were legally established by the British-Irish Agreement of 1999⁴⁰. Each

⁴⁰ <http://www.irishstatutebook.ie/eli/1999/act/1/enacted/en/pdf>

of these institutions is co-funded by the administrations of Northern Ireland and the Republic (Teague & Henderson, 2006). One of these implementation bodies is the Special EU Programmes Bodies (SEUPB), which is charged with implementing the EU's funding programmes.

The NSMC often serves as a forum for Health Ministers to discuss projects in areas of mutual interests, which has led to the creation of a number of all-island healthcare facilities and services. The NSMC is not concerned with the governance or supervision of these facilities services, but plays a significant role in facilitating and encouraging cross border and all-island service developments in those instances where a joint approach to developing particular service developments is mutually advantageous. Some relevant examples include the North West Cancer Centre at Altnagelvin Area Hospital in Derry/Londonderry, an All-island Paediatric Cardiology service, a cross-border Percutaneous Coronary Intervention service, and the cross-border ENT services that circulate mainly between the Monaghan, Cavan and Louth counties. The Health Services from both the Republic and Northern Ireland were the main actors in enabling these services. For the cross-border ENT services, as will be discussed later, the CAWT also played an important role (McCorry, personal communication, June 28, 2019).

4.3.3 CAWT

Despite the fact that the CTA, though its legal structure is debatable, and the 1998 Agreement are very important national structures for the provision of access to cross-border curative healthcare on the island of Ireland, a lot of this healthcare cooperation is not subject to formal legal structures. Rather, a significant part is organized by Service Level Agreements (SLAs) and Memorandum of Understandings (MoUs) between healthcare organizations in the Republic and Northern Ireland, of which much takes place under the CAWT (De Mars et al., 2018). The importance of EU legislation for cross-border healthcare cooperation hardly differs under the

various SLAs. It would, therefore, be cumbersome to discuss cooperation under each SLA separately. Instead, the CAWT will serve as a representation of cooperation under SLA's.

The CAWT, established in 1992 with the Ballyconnell Agreement⁴¹, is a voluntary partnership between the health services in Northern Ireland and the Republic. The body serves as a communication point between the two parties (European Commission, 2017). Cooperation under the CAWT's ambit is mainly focussed on creating an economy of scale and employ scarce skills in a combined population. Most projects are aimed at modernizing and reforming services to enhance the access to healthcare in the rural border areas (McCrory, personal communication, June 28, 2019).

The CAWT is concerned with both national legislation and EU legislation. Although it predates it in creation, the CAWT is closely related to the 1998 Agreement. While not being dependent on it, the NSMC is an important facilitating actor for the activities of the CAWT (De Mars et al., 2018). In addition, the CAWT receives much funding from EU INTERREG for cross-border healthcare projects. The earlier mentioned "Putting Patients, Clients and Families First" and "Connecting Services, Citizens and Communities – Acute services" projects were all carried out by the CAWT. In this way, the national dimension and EU dimension often overlap. For example, one of the focus areas of the NSMC is accident and emergency planning. Under the CAWT there are SLAs and MoUs that enable emergency vehicles to cross the border on a daily basis to provide emergency care in either jurisdiction. The Acute Services project currently improves these emergency services, demonstrating the influence of the EU. Furthermore, before EU funding, there were no ENT services in the Cavan-Monaghan area and a very robust one in the Southern Trust in Northern Ireland existing of four ENT surgeons working on rotation in the area. EU funding allowed for two more ENT surgeons to also rotate

⁴¹ <http://www.cawt.com/wp-content/uploads/2018/02/The-Ballyconnell-Agreement-page-1.pdf>

the Cavan-Monaghan area. Currently, these ENT services are facilitated by the NSMC and organized under the CAWT (McCrory, personal communication, June 28, 2019; Select Committee on the European Union, 2017).

Before I proceed to discussing which legislation or structures are disintegrated or affected by a hard Brexit, I will, for the sake of overview, first give a summary of the key points. EU Health legislation arises from the EU's competences in the internal market. The following health legislation provides access to cross-border curative healthcare by guaranteeing the internal market's four freedoms: Regulation 883/2004/EC on the Coordination of Social Security Systems, Directive 2011/24/EU on Patients' Rights in Cross-border Healthcare, a whole body of directives and regulations on the free movement of health related goods, Directive 2005/36/EC on the Recognition of Professional Qualifications, Directive 2012/52/EU on the recognition of medical prescriptions issued in another Member State, EU legislation on Data Protection and Procurement. In addition, EU Regional Policy provides funding for cross-border healthcare projects as part of overcome internal barriers by harmonizing the internal market and addressing regional imbalances. In addition to the EU dimension, access to cross-border curative healthcare on the island of Ireland is also provided by national structures, specifically the 1998 Agreement through the NSMC, the CTA for the free movement of people and associated rights and the CAWT which undertakes cross-border healthcare projects, albeit largely funded by the EU.

5 THE EFFECT OF A HARD BREXIT ON THE STRUCTURES AND LEGISLATION THAT PROVIDE ACCESS TO CROSS-BORDER CURATIVE HEALTHCARE ON THE ISLAND OF IRELAND

This chapter will be devoted to answering the second sub-question, that is, ‘How does a hard Brexit affect the provision of access to cross-border curative healthcare on the island of Ireland?’. Again, the EU level and the national level will be discussed separately.

5.1 CHANGES IN EU HEALTH LEGISLATION DUE TO A HARD BREXIT

In this research, a hard Brexit constitutes the scenario where the UK is to leave the SEM and the Customs Union. As discussed in length earlier, roughly all EU health legislation is intrinsically linked to the internal market apart from EU funding, albeit an important contributor to EU integration and cohesion and therefore strengthening the internal market. Thus, in the event of a hard Brexit, this entire body of health legislation will be disintegrated in the UK. In addition, the legislation that aligns of regulatory rules, and thus dismisses the need for border controls, will also be disintegrated. This will inevitably lead to the re-establishment of physical infrastructure at the Irish border. Lastly, as Brexit means that the UK will no longer be an EU Member State, the EU will no longer be inclined to promote cross-border cooperation in the border region of the Republic and Northern Ireland as part of its attempt to improve both the cohesion between EU Member States and its overall integration. Logic therefore also suggests that EU funding from its regional policy will be discontinued.

5.2 CHANGES IN THE NATIONAL STRUCTURES DUE TO A HARD BREXIT

In the answering of the first sub-question, I mentioned three structures that are mainly responsible for the national provision of access to cross-border curative healthcare on the island of Ireland. The existence of neither of those three structures are dependent on the EU (McCall, personal communication, June 17, 2019; O'Donoghue, personal communication, June 26, 2019). The CTA pre-dates EU membership, the EU was not a signatory of the 1998 Agreement and the CAWT is a partnership between the health services on either side of the border. They can all theoretically be preserved post-Brexit. Nevertheless, the importance of the EU for the national structures that provide access to cross-border curative healthcare on the island of Ireland cannot be mitigated. As explained earlier, the EU dictates the environment in which national health systems and cross-border cooperation in healthcare operate. Moreover, both the 1998 Agreement and the CAWT were set up under EU membership and the CTA was never updated due to EU membership (Fahy, personal communication, June 27, 2019). These structures therefore might not depend on the EU, but are to a greater or lesser extent enabled by it. Furthermore, the UK and the Republic joined the EU simultaneously. These structures have, therefore, always operated while either both countries were EU member or both were not. The changes that a hard Brexit entails for those structures, that is the disintegration of EU legislation in Northern Ireland, will, therefore, mainly have an impact on their practical implementation. The exception to this, as will be discussed, is the EU funding that will be terminated, which greatly reduces the financial capacity of the CAWT.

5.2.1 The Common Travel Area

The CTA could be facing some serious problems regarding the provision of restriction-free movement. In theory, after a hard Brexit, British and Irish citizens will be able to continue to

travel freely between the two countries under the CTA. Due to domestic legislation, these citizens will continue to be exempted from immigration law in each other's country, thus maintaining the free movement of these citizens. However, the CTA lacks a legal footprint as there is no binding legal document that ascertains this mutual exemption (McCall, personal communication, June 17, 2019; Soares, personal communication, June 27, 2019; McCrory, personal communication, June 28, 2019). What is more, the free movement of persons is inextricably linked to other freedoms, which must also be guaranteed in order to actually be able to make use of this free movement under the CTA. This interdependence of freedoms is reflected in the need for EU health legislation to guarantee the free movement of people, services and goods. Many of the freedoms that are necessary for continuing the free movement under the CTA are provided for by EU legislation (De Mars et al., 2018). In the words of De Mars: *“in losing the EU law, you lose the mechanisms by which this movement currently operates”* (personal communication, June 20, 2019).

The same applies to the associated rights of the CTA. Although they lack legal basis, these rights can still be derived from the mutual exemptions for immigration after a hard Brexit. They would be maintained as this is a matter of domestic legislation and independent of EU legislation. However, the utilization of that right will be complicated by a hard Brexit as the provision of what these rights entail is attributable to EU legislation. To illustrate, the right to work under the CTA, ambiguous as it is, will in itself be maintained, meaning that a doctor from Northern Ireland is entitled to work in the Republic. However, in order to actually work in the Republic, the qualifications of this doctor need to be recognized, which is subject to EU law (De Mars, personal communication, June 20, 2019). In addition, this doctor, as he moves across the border, might need to carry medical equipment. Such free movement of goods is enabled by EU legislation, not the CTA, and while the CTA is said to cover the right to work, it does not cover the right to provide services. Similarly, the citizens of the Republic and the

UK have the right to healthcare. Yet, the rules governing the reimbursement of such cross-border healthcare are regulated by the EU's Regulation 883/2004 and Directive 2011/24, as reimbursement of healthcare resulting from the CTA is based on residency (De Mars et al., 2018). This means that the reimbursement of cross-border healthcare comes to rely on bilateral reciprocal agreements. As healthcare provision is a competence of the Member States, each one of them is free to conclude their own bilateral agreements with third countries regarding reciprocal healthcare. It would then be up to the Republic and the UK to decide what they want to include in a reciprocal healthcare agreement. However, if the Republic and the UK do not conclude such an agreement. Citizens will then have to 'buy' additional coverage packages to cover cross-border healthcare, just as they currently also have to do for other third countries with whom the country does not have an agreement (Citizens Information, n.d.; NHS, n.d., b).

In addition to providing mechanisms that cover the associated rights under the CTA, the EU also enables the openness of the Irish border. The CTA only provides a right to cross the border to British and Irish citizens, but does not ensure the absence of border infrastructure. This is a result of the alignment of regulatory rules as part of the creation of the internal market, thereby eliminating the need for border controls and other physical infrastructure. After a hard Brexit, regulatory alignment will no longer be guaranteed and border infrastructure will, therefore, be re-established on the Irish border. Although such infrastructure does not terminate the CTA, it does complicate the essence of the CTA, that is a free travel area.

The only way to prevent border infrastructure is by keeping Northern Ireland aligned to the minimum required EU legislation to keep the border open, generally referred to as 'the backstop' (McCall, personal communication, June 17, 2019). However, although both the Republic and the EU have emphasized that, as far as they are concerned, the backstop is a requirement for any deal (Dayan, personal communication, July 01, 2019), UK government does not seem to be willing to agree with a backstop (Soares, personal communication, June

27, 2019). For this reason, and for the reason that the backstop does not qualify as a hard Brexit under the definition of a ‘hard Brexit’ employed in this research, this scenario will further be excluded from the analysis.

5.2.2 The 1998 Agreement

The 1998 Agreement can too be preserved. In fact, a hard Brexit will be less problematic for the 1998 Agreement than for the CTA. The EU is not a signatory to the agreement and there is no EU legislation legally underwriting it (McCall, personal communication, June 17, 2019; Soares, personal communication, June 27, 2019). However, the EU is highly invested in the peace process on the island of Ireland and, as discussed earlier, supports and promotes cross-border cooperation through large amounts of funding.

This financing is where the Brexit becomes relevant for the 1998 Agreement. The NSMC promotes cross-border cooperation on the island of Ireland as an important part of the peace process. One of its implementation bodies, the SEUPB, manages the EU funding invested in the island. The NSMC meets in the SEUPB to decide how this funding will be distributed (North South Ministerial Council, n.d., b). As such, EU funding supports the NSMC in employing cross-border cooperation as a means to peace. Although the 1998 agreement is not dependent on the EU, it therefore still relies, at least in part, on EU funding to implement and promote part of the cross-border cooperation it pursues in light of the peace process. In the event of a hard Brexit, the current funding streams will cease, which could then cause a number of practical problems for the 1998 Agreement (De Mars, personal communication, June 20, 2019). Practical problems might also arise in the execution of cross-border cooperation, although that might not directly be an issue for the 1998 Agreement but for structures such as the CAWT.

5.2.3 The CAWT

The impact of a hard Brexit on the practical side of cross-border cooperation is predominantly evident in the activities through the CAWT. The CAWT is one of the main beneficiaries of the EU INTERREG funding in the border areas of the island of Ireland. As stated by McCall *“INTERREG is really, really important [...], especially for Cooperation and Working Together, the CAWT programme”* (personal communication, June 17, 2019). EU funding is in this context especially vital to develop new ways of working, investing in new cooperation areas, sharing best practices and amalgamating services and skills (McCrory, personal communication, June 28, 2019).

However, not all cooperation under the CAWT is financed with EU funding. Health services on both sides of the border have contributed considerably as well. As pointed out by McCrory, the radiotherapy centre in Altnagelvin, for example, was realised completely without EU funding or support. She states: *“It is literally an Irish initiative, Northern Ireland, in other words the UK, and the Republic of Ireland both saw the benefits of working together and actually building the centre and they continued to share the funding, the long term revenue tale [...]. So no, the EU has not been required to support that initiative, it has been completely that of the two governments of the island of Ireland that done that.”* (McCrory, personal communication, June 28, 2019).

Having said that, Soares insists that even in this case the significance of EU funding should not be minimized. He stresses that it was EU funding that initially enabled cross-border cooperation between the health services: *“The starting point is normally an EU funded cross-border project. And even a lot of the knowledge that goes into Altnagelvin and other places will come about through an EU funded cross-border cooperation programme. So I wouldn’t minimize the importance of EU funding, even though initiatives like the centre in Altnagelvin*

aren't necessarily funded by the EU." (Soares, personal communication, June 27, 2019). Moreover, in addition to initiating cooperation, EU funding is also vital for continuing it. As argued by Soares, the presence of a "pot of money" makes it attractive for people to keep working together. The loss of EU funding, therefore, not only reduces the amount of new projects, but also reduces the overall incentive to work together.

Nevertheless, fact is that, after a hard Brexit, cooperation under the CAWT will probably to a certain extent still be funded. One of the bigger problems will be the execution of this cooperation, which relies on the four freedoms of the EU's internal market. In the context of routine business, for example, healthcare staff travels across the border on a daily basis to undertake their work duties. By virtue of the CTA they will be able to continue doing this, but without the four freedoms of the EU internal market there will be infrastructure at the border. This could, and probably will, result in potential queueing at the border. The daily commute of healthcare professionals and staff will then be prolonged, which could potentially contribute to the reluctance to work in the cross-border healthcare sector (McCrory, personal communication, June 28, 2019). This may seem to be a secondary problem, but in the context of large healthcare staff shortages in both the Republic and the Northern Ireland this seemingly minor issue could have important implications. Growing waiting lists in both countries point to an ongoing shortage of healthcare staff, which will be aggravated by a decrease of incoming overseas healthcare staff post-Brexit (Dayan, personal communication, July 01, 2019). However, no data is available on the actual volume of healthcare staff commuting between the Republic and Northern Ireland, which makes it difficult to assess the extent of the problem.

Problems also arise in the execution of the work duties of healthcare professionals. As discussed earlier, the recognition of qualifications is regulated by the EU. Furthermore, cross-border healthcare is accompanied by the exchange of data. Data concerning the healthcare professional and/or the patient crosses the border together with that professional. Such an

exchange of data is regulated by EU data protection and procurement law as part of the internal market and will, therefore, be impeded by a hard Brexit (De Mars, personal communication, June 20, 2019; O'Donoghue, personal communication, June 26, 2019). This will be problematic for the employment of any healthcare professional, but for some groups of professionals these problems are more profound than for others. Ear Nose Throat (ENT) surgeons are one such example. As previously discussed, there are currently six ENT surgeons in the Cavan-Monaghan and Southern Trust areas rotating across the border, two of which have been facilitated by the EU. ENT services are an example of the type of service that was difficult to realize in the border area of the Republic due to scale problems. The solution was to amalgamate services and combine the border area of the Republic with Northern Ireland (McCorry, personal communication, June 28, 2019). After a hard Brexit such specialist services that need to cross the border will be impeded by different barriers regarding the carrying of medical products and goods across the border, recognizing professional qualifications and exchanging medical data. However, it is unclear how often this is occurs and therefore how problematic this will prove to be.

However, the problems are the greatest for emergency care. Ambulances routinely cross the border from either jurisdiction to pick up patients on either side of the border to transport them to the nearest hospital. Here too the recognition of qualifications and the exchange of medical data will be an issue. However, where physical border infrastructure poses more or less of an inconvenience to previously mentioned healthcare, it will cause far more serious problems for emergency care. This kind of healthcare contains a certain level of time sensitivity wherewith ambulances cannot afford to be held up at the border (McCorry, personal communication, June 28, 2019). These problems will be even more dire when the amount of border cross points will be reduced to fifteen key arterial routes, as the situation was the last time the Irish border had physical infrastructure (McCall, personal communication, June 17,

2019). In combination with time loss due to border infrastructure, the reduction of crossing points diminishes the gain in efficiency, and therefore incentive, of cross-border cooperation in emergency care.

6 THE IMPEDIMENT OF HARD BREXIT FOR ACCESS TO CROSS-BORDER CURATIVE HEALTHCARE ON THE ISLAND OF IRELAND

Now that it has been established which European legislation and national structures provide access to cross-border curative healthcare on the island of Ireland, and it has been established how a hard Brexit will affect these legislations and structures, it is time to apply the measurements operationalized in chapter 3.2 to this information, to the extent that this is possible in a qualitative study, and analyse in how far the effect of a hard Brexit constitutes an impediment of access to cross-border curative healthcare. For each measurement of this access, a distinction will be made between secondary, tertiary and emergency care. Thereafter, I will proceed with assessing which alternative structures might continue the current provision of access to cross-border curative healthcare on the island of Ireland. I will do this by answering the third sub-question: ‘To what extent will the effect of a hard Brexit on the provision of access to cross-border curative healthcare on the island of Ireland impede that access?’. Together with chapter 7, this chapter will be devoted to assessing the solvability of the research problem.

6.1 MEASURING THE EFFECT OF A HARD BREXIT ON ACCESS TO CROSS- BORDER CURATIVE HEALTHCARE

In order to measure the effect of a hard Brexit on access to cross-border curative healthcare on the island of Ireland, the information under chapters 4 and 5 needs to be translated into measureable units. To recap, the independent variable, a hard Brexit, is measured by the UK leaving the SEM and the Customs Union. The dependent variable is measured by the availability of cross-border healthcare and the utilization of cross-border healthcare. The measurement of each of the measureable units under availability and utilization will be

subdivided in a general measurement, and separate measurements for secondary, tertiary and emergency care.

6.1.1 The availability of cross-border curative healthcare

The availability of cross-border curative healthcare, which reflects the ‘having’ of access, is measured by ‘the existence of arrangements and agreements that give citizens of the Republic and Northern Ireland the right to healthcare in each other's countries’ and ‘the presence of arrangements and agreements that enable the existence of cross-border healthcare on the island of Ireland’.

Citizens of the Republic and Northern Ireland have a right to healthcare in each other’s country through Regulation 883/2004 and Directive 2011/2004 on EU level and through the CTA on a national level. This does not differ for the various levels of healthcare, as a ‘right to healthcare’ is not specific to a certain type of healthcare. After a hard Brexit, these citizens will only maintain their right to cross-border healthcare on the island of Ireland through the CTA.

The existence of cross-border healthcare is generally attributable to EU funding and Directive 2011/24 at the EU level, and the 1998 Agreement, through the NSMC, and the CAWT at the national level. This is predominantly the case for cross-border tertiary and emergency care. Directive 2011/24 contributes to cross-border secondary care to the extent that it aims to promote cross-border healthcare more generally. Other than that, cross-border secondary care seems to be more of a by-product of the possibility to obtain healthcare in another country other than it specifically being pursued at an administrative level. After a hard Brexit, current EU funding will come to an end and Directive 2011/24 will be disintegrated. However, the 1998 Agreement and the CAWT will remain in place.

6.1.2 The utilization of cross-border curative healthcare

The utilization of cross-border curative healthcare represents the ‘gaining’ of access. It is measured by the ‘the existence of arrangements and agreements that facilitate the physical accessibility to cross-border healthcare on the island of Ireland’ and ‘the existence of reciprocal healthcare agreements and arrangements between the Republic and Northern Ireland, either bilateral or multilateral’.

The regulatory framework that guarantees the physical accessibility of cross-border healthcare consists of the EU internal market’s free movement of people, services and goods, Directive 2005/36, Directive 2012/52, and EU data protection and procurement legislation, that is, Directive 2016/679, at the EU level, and the CTA at the national level. This being said, the free movement of goods and services, Directive 2012/52/EU and Directive 2005/36 are only vital for the physical accessibility of that cross-border healthcare that involves the movement of healthcare professionals. Where cross-border healthcare involves the movement of the patient, which is largely the case with cross-border secondary care, the free movement of people, the free movement of data insofar the patient is normally treated at a healthcare facility in his own country, and the CTA are sufficient for its provision. In the event goods are involved, such as medical products, devices or maybe even human products, then the provision of the free movement of goods is also needed. However, this is not an basic necessity in cross-border secondary care as it is usually only the patient crossing the border.

Cross-border emergency care, however, involves both the movement of patient and professional and are, therefore, reliant on the entire aforementioned framework. Cross-border tertiary care is a bit more difficult to assess exactly on which legislations and structures it relies. In general it is just the patient moving, for instance to one of the all-island healthcare facilities. However, the analysis of the CAWT showed that in some cases specialist professionals such as ENT surgeons also cross the border. Yet, the frequency in which this occurs is unclear. The

CAWT was taken as a representation of unofficial cross-border partnerships on the island of Ireland. It can therefore be that specialist professionals only sporadically cross the border but it may also be a more regular thing in tertiary care. In the case of the latter, a hard Brexit could then pose a somewhat greater restriction on the access to cross-border tertiary care, since, after a hard Brexit, the physical accessibility of cross-border curative healthcare is reduced to the CTA.

The reciprocal healthcare arrangements and agreements that regulate the reimbursement of cross-border healthcare between the Republic and Northern Ireland are Regulation 883/2004 and Directive 2011/24. In addition, the free movement of services is an important regulatory structure due to the fact that, as will be explained later on, the reimbursement of healthcare is subject to the rules of the WTO regarding the cross-border provision of services. This does not differ for the various levels of healthcare as, similar to the right on healthcare, the reimbursement of healthcare at administrative level does not distinguish between secondary, tertiary and emergency care. Health insurers might make this distinction, but that is more of an issue at the individual level and will not be directly affected by a hard Brexit. That being said, it should be noted that Regulation 883/2004 is more important to cross-border tertiary care than Directive 2011/24, as the regulation contains specific provisions for the reimbursement of specialist care. In addition, logic prescribes that Regulation 883/2004 is also more suitable for the reimbursement of cross-border emergency care as reimbursement under this regulation does not require prior authorization. As the current reciprocal healthcare arrangements and agreements are all part of EU legislation, the entire regulatory framework that provides the reimbursement of cross-border healthcare will be disintegrated with a hard Brexit.

6.1.3 The effect of a hard Brexit on cross-border curative healthcare on the island of Ireland

In general, the effect of the independent variable, a hard Brexit, on the dependent variable, access to cross-border curative healthcare, seems to be that a hard Brexit technically more or less halves the access to cross-border curative healthcare on an administrative level. This is predominantly due to the loss of the ability to utilize this access. The availability of cross-border healthcare only appears to be weakened. Cross-border curative healthcare would continue to exist and citizens on the island of Ireland will maintain their administrative right to it. The only administrative difference in availability of cross-border curative healthcare after a hard Brexit is that the development of this healthcare might be slowing down due to the loss of funding to set up new projects. The administrative provision of the utilization of access to cross-border curative healthcare will largely disappear. After a hard Brexit, the reimbursement structures for cross-border healthcare disappear, which makes the reimbursement of such healthcare impossible and, therefore, significantly increases the costs of such healthcare for patients. The physical accessibility of cross-border curative healthcare will be considerably reduced, by more than half, in the event of a hard Brexit. The free movement of the healthcare professional will completely come to an end, the free movement of the patient only in part, that is, in those cases their medical records need to be transferred across the border.

When the effect of a hard Brexit is analysed for cross-border secondary, tertiary and emergency care separately, it becomes apparent that there is a big difference in effect between the different categories. The effect appears to be greatest on cross-border emergency care, where access will be significantly reduced. In line with the general effect of a hard Brexit on access to cross-border curative healthcare, this is primarily due to the disappearance of the structures that enable the utilization of this healthcare. The availability of this healthcare will be somewhat reduced by the loss of EU funding, but that is also the case for cross-border tertiary care.

The impact of a hard Brexit on cross-border secondary and tertiary care is limited. The complete disappearance of reimbursement structures is also not limited to or worse for cross-border emergency care. The major difference in the effect of a hard Brexit between the different categories of cross-border healthcare lies in their physical accessibility after a hard Brexit. In general, only the free movement of the patient will be partially maintained, that is, as far as it concerns the movement of the patient himself. Medical records will not be able to cross the border. This means that the physical accessibility of cross-border secondary care will largely be maintained. Note that this statement does not take the availability of goods, such as blood and tissue, in the UK after Brexit and what the shortage of staff will be. Brexit could very well affect both of these aspects, which could then indirectly affect the availability of cross-border secondary care for citizens of the Republic. For cross-border tertiary care it is, as stated before, more difficult to assess the extent of the impact of a hard Brexit as it is hard to determine exactly how many specialist healthcare professionals cross the border.

Technically, the ability to cross the border as a patient from Northern Ireland or the Republic will also be maintained for cross-border emergency care. However, account must be taken of the fact that a hard Brexit will introduce a new administrative structure, that is, border infrastructure. This adds a new dimension to the movement of the patient, namely that it is only maintained if there is no time pressure involved. As time pressure is usually at the core of emergency care, the entire physical accessibility of this category of cross-border healthcare will be at least heavily reduced if not lost. The extent of this reduction depends on the future number of key arterial routes to cross the border.

6.2 CAN THE EFFECT OF A HARD BREXIT BE MITIGATED BY REPLACING STRUCTURES AND LEGISLATION?

Now that it has been mapped out which structures provide the access to cross-border healthcare pre-Brexit and what will remain after a hard Brexit, it is time to answer the third sub-question: ‘To what extent will the effect of a hard Brexit on cross-border curative healthcare impede the access to that healthcare?’. The extent to which a hard Brexit impedes access to cross-border curative healthcare depends on the extent to which the relevant disintegrated legislation and structures can be replaced by agreements and other structures.

6.2.1 The provision of the availability of cross-border healthcare after a hard Brexit

As for the first measurement of the availability of access, the future does not seem to be very favourable for the right to cross-border healthcare on the island of Ireland. This is true for cross-border secondary, tertiary and emergency care alike. British and Irish citizens will not necessarily lose their right, but will have to rely on the CTA. The problem with this is that the CTA is hardly a solid assurance of one’s right. The CTA does not have a clear legal base and there is no binding legal document in which the Republic and the UK agree to grant each other an exemption of immigration and grant each other associated rights. Either one of the countries could easily unilaterally adjust its immigration policy in a way that would be disadvantageous for the citizens of the other country.

The Republic and the UK sign a Memorandum of Understanding (MoU) in which they *“reaffirm the arrangement [...] in relation to the associated Common Travel Area (“CTA”) and the associated reciprocal rights and privileges enjoyed by British and Irish citizens in each*

other's state."⁴² However, recognizing the shared commitment to the protection of the CTA is basically all it does. It does not provide any legal certainty and is not legally enforceable (O'Donoghue, personal communication, June 26, 2019). This might not be a big difference in comparison to the CTA pre-Brexit, but pre-Brexit the rights under the CTA were supported by legally enforceable rights to cross-border healthcare under EU law. Therefore, after a hard Brexit, British and Irish citizens no longer have a right to cross-border healthcare on which they can legally rely.

This would in theory mean that, with regard to the rights, the access to cross-border curative healthcare would not be impeded by a hard Brexit, as it would still be an administrative right under the CTA. In practice, however, the impediment by a hard Brexit depends on the importance of legally enforceable rights. Without such enforceability, citizens on the island of Ireland, and especially in Northern Ireland, will have to rely on Irish and UK Government to respect and adhere to those rights. This is precisely where Brexit already seem to cause problems, as there is currently a lawsuit, the DeSouza case, making its way through the administrative courts of Northern Ireland regarding the administrative application of rights under the 1998 Agreement by the UK Government (O'Donoghue, personal communication, June 26, 2019).

According to several media sources⁴³, the plaintiff, Mrs. DeSouza, appealed to her right as an EU citizen to apply for the EU Settlement Scheme, under which she should be able to apply for a settled, or pre-settled, status for her US husband in preparation of Brexit, given that she is resident in the UK before Brexit (HM Government, 2019b). UK Home Office is said to

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/800280/CTA-MoU-UK.pdf

⁴³ <https://www.theguardian.com/commentisfree/2019/may/06/home-office-british-citizenship-northern-ireland--good-friday-agreement>; <https://www.irishtimes.com/news/ireland/irish-news/derry-woman-puts-her-finger-on-a-bizarre-brexit-anomaly-1.3795544>; <https://www.euronews.com/2019/04/02/are-irish-citizens-in-northern-ireland-really-being-reclassified-as-british-the-cube>

have refused her request on the grounds that, as a British citizen, she cannot apply for the EU Settlement Scheme and should follow the British immigration process, which is far more strict than the EU Settlement Scheme. According to Mrs. DeSouza, this is unjustified as she claims not to be a British, but an Irish citizen. Indeed, citizens born in Northern Ireland have a birth right under the 1998 Agreement to choose whether they want to hold British citizenship or Irish citizenship. Mrs. DeSouza, who is said to never have owned a British passport, claims that her husband is eligible to a settled status under the EU Settlement Scheme, because, as an Irish citizen in Northern Ireland, she is an EU citizen living in the UK pre-Brexit. The UK Government argues that, although she does have Irish citizenship under the 1998 Agreement, she was born in Northern Ireland and is, therefore, automatically a British citizen. And because "an international agreement such as the Good Friday agreement cannot supersede domestic legislation," according to an alleged letter from immigration minister Caroline Nokes⁴⁴, Mrs. DeSouza must adhere to the British migration process. This dispute illustrates that, in the UK, bilateral agreements do not provide the administrative security required to ensure that a hard Brexit does not affect the rights of citizens of the island of Ireland. Considering the CTA offers even less security than the 1998 Agreement (O'Donoghue, personal communication, June 26, 2019), a right to healthcare under the CTA does not mean that a hard Brexit will not impede this aspect of access to cross-border curative healthcare on the island of Ireland.

As for the existence of cross-border healthcare, there are some negative consequences of a hard Brexit, but it does not mean the end of it. Directive 2011/24 will be disintegrated, but the 1998 Agreement and the CAWT seem to be of greater importance for the case of the island of Ireland and both the NSMC and the CAWT will keep pursuing cooperation in healthcare (De Mars, personal communication, June 20, 2019; McCrory, personal communication, June 28,

⁴⁴ <https://twitter.com/EmmandJDeSouza/status/1129378541433511936>

2019). A hard Brexit does not mean a legal dissolution of these cross-border structures. However, they do rely on EU funding for many cross-border projects. After Brexit, funding from the current INTERREG and PEACE programmes will cease.

Fortunately, this does not necessarily mean the end of funding to cross-border healthcare projects in the region all together. A significant part of the total funding to these projects and other initiatives is contributed by health services on either side of the border and will, therefore, be preserved in the event of a hard Brexit. It should be noted, however, that the capacity of both health services to continue this financing depends on the future of the economies in the Republic and the UK. Especially in the UK the prognosis for the economy in the event of a hard Brexit is not good (Fahy, personal communication, June 27, 2019). However, this is a detail that will not be discussed further as it lies more in the realm of an economist.

It should also be noted that EU funding might not be completely lost. With Regulation 2018/0196/COD⁴⁵, the EU lays down a proposal to combine INTERREG and PEACE funding in one programme, PEACE Plus. Part of the funding that the EU proposes would be financed with INTERREG funding that the Republic usually receives. Hence, both the Republic and the EU are committing themselves to a new programme with this proposal. According to Soares, this new funding programme would be independent of the type of Brexit and, probably, of the UK's contribution. However, although the specific amount that the PEACE Plus programme would entail has not yet been disclosed, it is likely that the UK will have to contribute to reach the required amount. Soares argues that after the Brexit, the relationship between the Republic and Northern Ireland, or the UK, will be damaged and additional funding will be needed to repair this relationship (personal communication). In any case, given that the PEACE Plus programme *“should continue and build on the work of previous programmes, Peace and*

⁴⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A375%3AFIN>

INTERREG” (Regulation 2018/0196/COD), it is likely that the new PEACE Plus programme will set similar criteria and objectives for the funding of projects as the current INTERREG and PEACE programs. It should be emphasized that this programme is not secured yet (McCrory, personal communication, June 28, 2019), but if it does get adopted and it does get allocated sufficient financial resources, the existence of cross-border healthcare under EU funding will be preserved and the impediment of a hard Brexit for the existence of cross-border healthcare will be limited.

The extent to which the consequences of a hard Brexit would impede the existence of cross-border healthcare does differ somewhat for the different levels of healthcare. As explained earlier, cross-border secondary care relies far less on EU structures and legislation than for instance cross-border emergency care. A hard Brexit will have a limited impact on the existence of cross-border secondary care. It might have an indirect effect, in that post-Brexit there will be a decrease in incentive to cooperate due to an affected relationship between the Republic and Northern Ireland and an increase in regulatory barriers. The consequences for cross-border tertiary and emergency care are more direct, but still do not present insurmountable problems. That is if the new PEACE Plus programme is secured. In that case, cross-border healthcare projects that improve cross-border tertiary and emergency care will be able to continue to operate and new partnerships will potentially be established that focus on those levels of cross-border healthcare. If the new PEACE Plus programme is not secured, the total budget available for cross-border projects in tertiary and emergency care will be limited to the budgets available to the health services on both sides of the border, which is considerably less than the budget including EU funding.

6.2.2 The provision of the utilization of cross-border healthcare after a hard Brexit

In addition to having access to cross-border healthcare, it is also important for the overall access that British and Irish citizens are able to gain this access. The first measurement of the ability to utilize cross-border healthcare on the administrative level is the provision of physical accessibility. The extent to which a hard Brexit will result in a restriction for the physical accessibility heavily depends on the future existence and comprehensiveness of an FTA. The physical accessibility of cross-border healthcare is generally achieved by ensuring the free movement of patients and healthcare professionals and, to a lesser extent, the free movement of medical goods. The legislation set out to achieve this is being disintegrated as part of the disintegration of the SEM. This includes the EU's free movement of data, Directive 2005/36 for the recognition of professional qualifications. What is then left is the CTA which provides British and Irish citizens with the free movement of people insofar that these citizens are not subject to immigration law in each other's country.

This being said, with a hard Brexit there will also be changes for the physical accessibility of cross-border healthcare under the CTA. At the core of the CTA lies the principle of free movement for British and Irish citizens within the CTA, without any restriction nor the requirement for a visa. However, a hard Brexit will inevitably be accompanied by the loss of the open border and the re-establishment of border infrastructure as the aforementioned 'backstop' is neither a realistic option based on UK political sentiments regarding this backstop nor does it fall under the definition of a 'hard Brexit',

The two scenarios of a hard Brexit that then remain, in the long term, are a hard Brexit without any predefined EU-UK relationship and a hard Brexit with some sort of trade deal. The difference between the two scenarios is that in the with the former, the relationship between the UK and the EU would rely on WTO rules. However, both scenarios would involve Northern Ireland leaving the SEM and Customs Union and the whole body of EU health

legislation being disintegrated. This means that any hard Brexit, as recognized as a hard Brexit in this research, will be accompanied by some form of border infrastructure. The EU must protect the integrity of its internal market and Customs Union and therefore checks need to be carried out on everything that crosses the border from countries outside of the SEM and Customs Union, as these goods or services do not automatically meet EU requirements and guidelines (McCall, personal communication, June 17, 2019). That is also why there are currently no EU external borders without border controls (De Mars et al., 2016).

Physical border infrastructure will provide some obstacles to the free movement of people under the CTA. For a start, after a hard Brexit, British and Irish citizens may be allowed to cross the Irish border in either direction without needing a visa, but with border infrastructure they will probably have to show their passport at the border and thus it would no longer be a completely unrestricted route. What is more, the psychological effect of a physical border should not be underestimated. According to McCall and Soares, people will become more reluctant to cross the border when there is a physical barrier. This will be intensified when dissident groups target the border checkpoints, something they have done in the past and are likely to do again. The threat alone can already provide a kind of security race where the border points will have to be preventively protected against possible attacks, creating an atmosphere that can provoke conflict (personal communication, June 17, 2019; personal communication, June 27, 2019).

Moreover, the CTA will not guarantee the same level of free movement of people as EU legislation. Consistent with the EU's tendency to regard the four freedoms within the EU as indivisible, the effective movement across the border is not enough to guarantee the free movement of people, especially in the context of cross-border healthcare. For this, other components of healthcare must also be able to cross the border freely, such as data. Take for example a patient from the Republic. In order to truly have the freedom to physically access

healthcare in Northern Ireland, the potential hospital or other treatment facility needs to be able to access that patient's medical record⁴⁶. In the event that this patient is normally treated there, this entails the transfer of data across the border which will not be possible after a hard Brexit unless it is covered by an FTA. Without being able to access a patient's medical records, a healthcare professional is highly unlikely to actually provide healthcare. As argued by O'Donoghue, "*the medical profession is by nature quite cautious*". It is pre-eminently a profession that requires a completeness of information and is not prone to act without it, certainly not without a comprehensive medical record of the patient. Consequently, the patient might be able to physically enter the hospital, but will probably not be able to effectively receive the healthcare he or she needs.

The same applies to healthcare professionals. Being able to physically cross the border is not sufficient to be able to provide healthcare in the other country. A requirement for this is that their professional qualifications are recognized, which is regulated by the EU and lies beyond the ability of the Republic and the UK to negotiate. In order for the Republic to continue to recognize the qualifications of professionals from Northern Ireland, this must, be covered by an FTA. In addition, to enable the recognition of professional qualifications, data on those qualifications must be able to be processed and transferred between countries. This is not possible without any agreement involving data protection and procurement.

A third freedom that contributes to the physical accessibility of cross-border healthcare but does not necessarily involve the movement of either the patient nor the healthcare professional, is the free movement of goods. EU data protection and procurement legislation is a vital part of the provision of the movement of medical goods. Earlier, an example was discussed from the interview with De Mars (personal communication, June 20, 2019) about a

⁴⁶ As was confirmed and pointed out by Directive 2011/24

kidney who had to cross the border and the involved data. The information surrounding the kidney can no longer cross the border if it's not covered by either EU data protection and procurement legislation or a replacement agreement.

The problem with data protection and procurement should, in theory, be able to be resolved through an FTA. According to O'Donoghue, the Republic and the UK have been over complying with data regulations. This means that in principle, the day after Brexit the UK will still be in compliance with EU data legislation. What is needed is an agreement that guarantees that the UK will keep complying with EU data legislation and that there will be reciprocity in data legislation. The EU may then make a so-called 'adequacy decision' to decide whether or not the protection of data in the UK is adequate (European Commission, 2018), which will not be a problem due to the UK's over compliance. O'Donoghue does not rule out the possibility that the UK and the EU may therefore be able to reach an agreement that would allow the movement of data to be maintained, but she does raise concerns about whether the UK would be willing to do so, as data protection is "*an example of a red tape measure that Brexit was going to get rid of*" (personal communication, June 26, 2019).

Returning to the movement of patients and healthcare professionals after a hard Brexit, despite the disintegration of the EU's four freedoms, the right to health care and the right to work are associated rights under the CTA. Yet, be that as it may, the CTA is not recognized as a Preferential Trade Agreement (PTA) under the General Agreement on Trade in Services (GATS)⁴⁷ of the WTO, whereas the SEM is (Murray, O'Donoghue & Warwick, 2018). PTAs are exceptions to the Most-favoured-nation (MFN) principle of the WTO, whereby all WTO members should be treated equally. This principle is laid down in GATS with Article 2, which states that "*Each Member shall accord immediately and unconditionally to services and service*

⁴⁷ https://www.wto.org/english/docs_e/legal_e/26-gats.pdf

suppliers of any other Member treatment no less favourable than that it accords to like services and service suppliers of any other country.” The services Article 2 refers to are specified by Article 1.2 and can be distinguished into four modes. The first mode is cross-border trade, whereby the service crosses the border but the producer and the consumer do not. An example of this in healthcare is cross-border supply of health insurance or telemedicine. The second mode is consumption abroad, whereby it is the consumer who crosses the border. This can include the case where one incidentally needs medical care while being abroad or the case where a patient very specifically travels to another WTO member with the sole purpose of getting medical care. The third mode is commercial presence of a service, which involves foreign direct investment in another WTO member. The reimbursement of healthcare services in another WTO country is part of this mode. The final mode is the presence of natural persons, such as nurses and doctors providing healthcare while being physically present in another WTO member (Blouin, Drager & Smith, 2005). The WTO has a similar agreement for goods, namely the General Agreement on Tariffs and Trade (GATT)⁴⁸. The MFN principle also applies here and is laid down in Article 1, which comes down to the fact that WTO members may not discriminate in trading partners.

In the absence of an FTA, the EU and the UK will have to rely on the WTO rules for trade, including GATS and GATT. This means that any provision of health services under the four modes of services between the Republic and Northern Ireland would have to be extended to every other WTO member. It also means that the same rules for medicinal goods moving between the Republic and Northern Ireland should apply for any other country. This is an highly unlikely scenario for either the EU or the UK to pursue and it is, therefore, more plausible to assume that without an FTA these services would come to an end. If the EU and the UK do agree on an FTA, this agreement must be comprehensive enough to cover all four modes of

⁴⁸ https://www.wto.org/english/docs_e/legal_e/gatt47.pdf

service under GATS. The problem with this though is that no matter how comprehensive such an FTA, it might not be sufficient to match the current freedoms under EU legislation. As O'Donoghue puts it: *"Nowhere basically there is the right on the provision of services as the EU has. [...] Basically the EU is far beyond everybody else. So [...] the future trade deal would have to get [...] as far as to meet the exception, the exception being a Free Trade Area and Customs Union. Free Trade Areas generally don't include freedom of services to that great of an extent, so you're probably looking at a Customs Union. You could do it under a Free Trade Area, but there are basically no examples of that."* (personal communication, June 26, 2019). Or in the words of De Mars: *"There is nothing like the European Union anywhere else on Earth. It is more integrated and it has less restrictions on movement than anything else on earth. You are not going to be able to replace it with a single trade agreement."* (personal communication, June 20, 2019). This has implications for citizens of both the Republic and Northern Ireland, as cross-border healthcare in Northern Ireland, after Brexit, will fall outside of the realm of EU citizenship for citizens of the Republic.

Altogether, it seems that the movement of healthcare professionals will be more impeded by a hard Brexit than the movement of patients, as the latter only relies on the free movement of people and, to a small extent, the free movement of data and the former also relies on the free movement of services and goods and Directive 2005/36. For the various levels of cross-border healthcare, this would mean that a hard Brexit poses a greater restriction on the physical accessibility of cross-border emergency care, and to some extent cross-border tertiary care, which both include the movement of both patient and professional, than for cross-border secondary care, which is mainly limited to the movement of the patient. In all fairness, the free movement of medical goods is also an important part of cross-border secondary care, as in the example of the kidney, and will also be impeded by a hard Brexit, but this is secondary to the restriction on the movement of healthcare professionals.

Moving to the last measurement of the utilization of cross-border healthcare, a comprehensive FTA is also necessary to secure the existence of reciprocal healthcare arrangements and agreements between the Republic and Northern Ireland. Currently, these arrangements are provided for by Regulation 883/2004 and Directive 2011/24. As this legislation will be disintegrated in the UK, and thus Northern Ireland, there is no prospect of any reimbursement arrangements being in place after a hard Brexit. This applies to cross-border secondary, tertiary and emergency care alike. The CTA might serve as an alternative arrangement under Regulation 883/2004 whereby British and Irish citizens do not have to use the EHIC in each other's country, but this does not suffice to secure the reimbursement of cross-order healthcare after a hard Brexit. This again comes down to the fact that the CTA, in addition to the lack of any legal footprint, does not qualify as an PTA under WTO rules. As the reimbursement of healthcare services falls under the second mode of GATS, in the event that there is no FTA, when the HSE in the Republic and the NHS in the UK recognize health services in each other's countries and reimburse their citizens as such, they have to do the same for every other WTO country (WTO, 2011). In sum, without an agreement, British and Irish citizens may still buy healthcare in each other's country, but the moment they are reimbursed for it, it becomes a service under GATS. In the absence of an FTA, British and Irish citizens would, therefore, have to go private when accessing healthcare in each other's country which will considerably increase the costs of cross-border healthcare (O'Donoghue, personal communication, June 26, 2019).

The Republic and the UK could of course decide on replacing Regulation 883/2004 and Directive 2011/24 with bilateral agreements. According to De Mars they already made such an effort for Regulation 883/2004 with the Convention on Social Security Rights⁴⁹ (personal

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/778087/CS_Ireland_1.2019_Soc_Sec.pdf

communication, June 20, 2019). Yet, while I cannot assess properly whether this Convention actually covers the healthcare reimbursement arrangements under Regulation 883/2004, Fahy implies that this may not be the case. With the reservation that he is not an EU law expert, he cautiously stated that the Convention did not seem to cover the dimension of healthcare provision. His words: *“Scanning this really quickly, this Convention doesn’t cover [the] dimension of actual provision. If you look at Article 3 of this, what it covers in terms of sickness benefits, is the cash benefit of what you get paid as sickness payments when you are off work. So when you’re off work, there is a payment which the state makes to cover the costs of your illness basically, but it is not covering your healthcare treatment, it is covering your not working.”* (personal communication, June 27, 2019).

Taking a step away from the Convention and what it does or does not cover, there is the additional question of whether a Convention, on the one hand, is enough to provide something similar as EU legislation and, on the other hand, complies with WTO rules. Fahy doubts it: *“Basically, the EU is unique, in the sense that it creates a form of law which is created internationally, by and through an entity which is international and above Member States, and which nevertheless is integrated directly into the legal structure of the Member State with a transnational legal mechanism that enforces that and which citizens can rely on. So in principle, international agreements are agreements between states. And one state can complain to another or a citizen can complain to a state, but you cannot use your international right directly as a citizen as you described. So [...] no, no convention can ever create those rights.”* (personal communication, June 27, 2019).

6.2.3 The extent of impediment

When measuring the effect of a hard Brexit on access to cross-border curative healthcare, it was found that the disintegration of EU legislation would significantly reduce the existing provision

of access to cross-border curative healthcare. This was primarily due to the effect of a hard Brexit on the utilisation of cross-border healthcare. Furthermore, the effect was greatest for cross-border emergency care and the smallest for cross-border secondary care.

When analysing the extent to which this effect impedes cross-border healthcare, it turned out that part of this effect can be mitigated by substitute structures. The effect a hard Brexit has on the existence of cross-border healthcare could be weakened if the EU's plan to continue funding is adopted. If the UK also commits to not only continuing funding but up their funding, this effect could even be close to none. The effect of a hard Brexit on the utilization of cross-border healthcare could, to a large extent, be mitigated by a comprehensive FTA that covers at least all four modes of GATS and the movement of data and goods. With such an FTA, the reimbursement of cross-border healthcare could be maintained, as well as the physical accessibility of both cross-border secondary and tertiary care. However, where the effect of a hard Brexit on the right to cross-border healthcare appeared to be limited, this could in reality be greater. How much greater cannot be determined as this is entirely dependent on the perils of the UK government.

The answer to the question 'To what extent will the effect of a hard Brexit on cross-border curative healthcare impede the access to that healthcare?', therefore, that the effect of a hard Brexit can be mitigated. With the right structures, a large part of the lost EU legislation can be replaced and far more than half of the access to cross-border curative healthcare can be maintained. The only thing that cannot be mitigated is the reduction of physical accessibility for cross-border emergency care. In the event of a hard Brexit, as defined in this research, border infrastructure cannot be prevented. Even though the free movement of patients and healthcare professionals can be maintained with alternative structures, this is irrelevant as the time sensitivity is problematized by border infrastructure. Eventually it depends on the reduction of crossing points, but in any case it will be heavily reduced.

The big question that now remains is whether the comprehensive FTA that is needed to continue to guarantee the vast majority of administrative access to cross-border curative healthcare on the island of Ireland, with the exception of cross-border emergency care, will also be realised. Regardless of the political context, the answer, purely based on the possibilities and extent of alternative structures, is: probably not. Even if an FTA is agreed, it is highly unlikely to be comprehensive enough to address the legislative gaps that arise when disintegrating the EU legislative dimension. One of the reasons for this assumption is that such an FTA has simply not been achieved anywhere. Moreover, according to De Mars (personal communication, June 20, 2019), O'Donoghue (personal communication, June 26, 2019) and Fahy (personal communication, June 27, 2019) the EU is unique and no agreement could ever mimic the possibilities and structures under EU membership. An FTA will not be able to provide the same legal security as EU membership does. In addition, in order to address all the legislative gaps that arise with the disintegration of EU legislation with an FTA, this FTA must include that with certain legislation, such as data protection and procurement, the UK must commit to complying with any changes to that legislation without having direct control over those changes. As argued by O'Donoghue, this is exactly an aspect of EU membership that the Brexit was meant to get rid of. However, this political dimension of the solvability of these policy problems, that is, the legislative gap in the provision of access to cross-border curative healthcare on the island of Ireland, will be analysed in the next section.

7 THE SOLVABILITY OF THE RESEARCH PROBLEM

In this last analysis chapter I will answer the last sub-question: ‘To what extent are the problems caused by a hard Brexit for the provision of access to cross-border curative healthcare on the island of Ireland solvable?’. In this chapter, the theoretical framework will be applied as set out in the last part of chapter two. Based on this, it can be assessed to what extent the alternative structures are a viable option for UK politics to implement.

In the theoretical framework, I proposed to add political willingness to compromise as a contextual determinant of the solvability of policy problems. The common idea in the literature on the concept of the wicked problem seems to be that wicked problems are unsolvable as the solution to a problem relies on the definition of that problem. The assumption in this research is that the political context of a policy problem can also make non-wicked problems unsolvable, even when that policy problem can be defined and a solution can be identified. To assess the potential of this assumption, I will first analyse what type of policy problem the research problem can be identified as by replacing stakeholder difficulty with the notion of political distance in Alford and Head’s (2017) problem matrix. I will then, in part to prove my assumption but more importantly to assess the solvability of the problems caused by a hard Brexit for access to cross-border curative healthcare on the island of Ireland, assess the willingness in UK politics to compromise. For this, I will look at their history of having predominantly single-party majorities, and the general decision-making behaviour of MPs in the Brexit debate.

7.1 TYPE OF PROBLEM

In the theoretical framework in chapter 2, I stated that the research problem seemed to be definable – a legislative gap arises in the provision of access to cross-border curative healthcare – and that a solution could be formulated – replacing the disintegrated legislation with alternative structures. The definability of the research problem has not changed. However, the analysis of the replaceability of EU legislation has clarified that, in all probability, no alternative structure could ever replace the provisions under EU legislation. As a result, the research problem cannot be fully resolved, so that the research problem cannot in any case be a ‘tame’ problem.

The political distance affecting the research problem consists of political polarization, political fragmentation and a lack of party majority. To recollect, if a problem scores high on only one of the measurements of political distance, that problem is placed on the far left of the horizontal axis of Alford and Head's matrix. If it scores high on two measurements, it is placed in the middle of the horizontal axis and if it scores high on all three, it is placed on the far right. Starting with political polarization, the Conservative Party and Labour Party have been dominating UK politics for at least the last 100 years. A government paper reports that since 1918 there have been 27 general elections in the UK, 17 in which the Conservative Party won the most seats and ten in which the Labour Party won most seats. As a result, for the last 100 years either the Conservative Party or the Labour party has been the governing party (Audickas, Cracknell & Loft, 2019). It is, therefore, safe to say that in general the UK has known a two party system. Since the 1960s, however, the UK has been increasingly experiencing political polarization. Although the Conservative Party and the Labour Party still have the vast majority of seats in Parliament, 92 of the 650 seats are currently occupied by 9 other parties, of which four have ten or more seats (UK Parliament, n.d., A). However, as 85,9% of the total seats are still occupied by either the Conservative Party or the Labour Party, there may be an increase in

fragmentation, but this is not yet significant enough to speak of high levels of fragmentation. Yet, what should be noted is that there are strong divisions within the Conservative Party regarding Brexit. After all, one of the main drivers behind the Brexit referendum was the increasing internal division regarding European integration (Hobolt, 2016). It is therefore hardly possible to consider the Conservative Party to be unified group when it comes to decision-making on Brexit related issues. However, exact numbers of the division, such as the number of Conservative MPs in favour of Brexit and the number of Conservative MPs against Brexit, are hard to determine. It can therefore still not be said that there is a high level of fragmentation in UK politics, but it might in practice be higher than the 85% of seats occupied by two parties suggests.

Moving on to political polarization, Brexit definitely lead to an increase, as analysed by Hobolt, Leeper and Tilley (2018). They analysed affective polarization in UK politics and found strong partisan polarization between members of the Conservative Party and Labour Party. Moreover, they found strong polarization along a 'Brexit Identity', that is, between 'Leavers' and 'Remainers'. This polarization along the 'Brexit Identity' does not seem to follow partisan polarization, but rather cuts across party identity. Based on the analysis of Hobolt, Leeper and Tilley, one can conclude that UK politics score high on the level of political polarization. As to the last measure of political distance, no party has a majority in Parliament. The current governing party, that is, the Conservative Party, has 311 out of 650 seats. With the support of the Democratic Unionist Party (DUP), they form a minority government. UK politics therefore score high on 'the lack of a majority'.

In sum, the research problem seems to contain moderate levels of 'problem complexity', as Alford and Head (2017) put it, and moderate levels of political distance, albeit leaning towards high levels as the political fragmentation might be higher than the seat division in Parliament suggests. Based on Alford and Head's typology, the research problem could

therefore be identified as a ‘complex’ problem, leaning towards a ‘political turbulent’ problem. The question now is whether these problems can be solved based the political willingness to compromise, which will be assessed now.

7.2 POLITICAL DIMENSION OF POLICY PROBLEMS

The political willingness to compromise is in this research measured by the political tradition, i.e. a history of having predominantly single-party majorities, and the general decision-making behaviour of MPs in the Brexit debate. Starting with the political tradition, the UK has a ‘First-Past-the-Post’(FPP) voting system for electing MPs for the House of Commons for decades. This means that the UK is divided into different 'voting areas' where voters put a cross with their preferred candidate. The candidate with the most votes in each voting area wins and becomes MP, all other votes are disregarded. This is also referred to as a ‘winner take all’ system as you do not actually need a majority, you just need more votes than the other candidates in that voting area (UK Parliament, n.d., b). According to Duverger, FPP voting systems usually promote two-party systems. Also known as ‘Duverger’s law’, he presupposes that when ‘winning’ means having the most votes, rather than having a majority of votes, there is a necessity to form ‘coalitions’ – parties merging together – before elections thus maximizing a party’s votes. Indeed, the FPP seem to have preserved the dominance of two main parties in the UK. As mentioned before, the Conservative Party and the Labour Party have dominated UK politics for the last 100 years, each election resulting in one of them being the governing party. What is more, in that same time period there were only six instances in which there was not a single-party majority. This suggest, following Durverger's principle of the ‘Tyranny of the Majority’, that there almost never has been a need to make concessions, to compromise.

The unwillingness to compromise is also visible in current trends in Parliament. The disadvantage of a FPP system is that there is a fair chance that one does not reach a majority in parliament, which, as discussed before, happened with the current UK government. In the case of a minority, the governing party then has two options: either entering a coalition or form a minority government with a 'confidence and supply agreement'. In the event of such an agreement, the minority government receives passive support from one or more parties which is just sufficient to get issues such as the budget approved. It suggest minimal concessions of governing party (Bellamy, 2012). The Conservative Party entered a confidence and supply agreement with the DUP in 2017 (HM Government, 2019a), which at least sets the tone of their willingness to make concessions. Because the Conservative Party is a minority government, they need support from other MPs to get legislation and the like through Parliament. This proved to be very difficult for anything related to the implementation of Brexit. As mentioned in the introduction, Parliament is in a stalemate. They do not seem to be able to get a majority for any type of Brexit. The Withdrawal Agreement was rejected on three occasions and the eight other options all did not reach a majority either, even though there is not much time left to spare.

This is a clear indicator from an unwillingness to compromise, which is not very promising for the research question. In order to solve the vast majority of the problems a hard Brexit causes for the provision of access to cross-border curative healthcare and FTA must be agreed between the UK and the EU. Some things might be agreed on at a bilateral Republic-UK level, but certain aspects are beyond the Republic's ability to negotiate. The recognition of professional qualifications, for example, must be negotiated on EU level. Especially when it comes to legislation that relates to quality requirements, the EU will not make any concessions. As mentioned before, for certain legislative aspects, the UK is going to have to commit to complying with any changes that the EU makes in those legislations without having direct

control over those changes. This is exactly what Brexiteers are unwilling to do (O'Donoghue, personal communication, June 26, 2019).

8 CONCLUSION AND DISCUSSION

The main aim of this research was to assess what the consequences of a hard Brexit will be on the access to cross-border curative healthcare on the island of Ireland. Cross-border curative healthcare on the island of Ireland is responsible for a big part of the general access to healthcare on the island of Ireland. With only two months left until Exit Day and with a growing uncertainty as to the implementation of Brexit, this research provides some clarity by focussing on what we do know. It did so by analysing where a legislative gap will arise in the provision when the UK leaves the SEM and the Customs Union and how this might be continued under alternative structures. However, it also analysed how likely it is that those alternative structures are actually adopted.

To arrive at an answer to this question, I will first briefly summarize the results of the four sub-questions. Table 3 provides an overview of the results of the first three sub-questions. Pre-Brexit, access to cross-border curative healthcare on the island of Ireland is provided for by both EU legislation and national structures. Due to the disintegration of EU legislation, the provision of access to cross-border curative healthcare will mainly come to rely on the CTA. This is problematic for three main reasons. First of all, the CTA is unable to provide the reimbursement of cross-border healthcare. Secondly, the CTA lacks legal basis and is, therefore, an highly uncertain structure to fall back on. The DeSouza case in Northern Ireland shows that the UK is not always willing to comply with the bilateral agreements they have concluded, at least regarding Northern Ireland, when it is not in their interest. Thirdly, the CTA is not recognized by the WTO as an PTA which limits its provision. For instance, while the right to work is regarded by both the Republic and UK government to be an associated right, the freedom to provide services is subject to WTO rules. As to the 1998 Agreement and the CAWT, the main problems will be that they might lose EU funding and that projects involving

the movement of healthcare professionals might be problematized. However, if EU funding is continued under PEACE Plus, the impact of a hard Brexit in this regard will be limited.

However, in general the provision of access to cross-border curative healthcare can be continued by an highly comprehensive FTA, which would mitigate to a certain extent the impact of a hard Brexit. Yet, it will not be able account for the access completely. The EU is unique in the freedoms it provides. No existing FTA even comes close to this. Furthermore, being an international agreement, an FTA also will not be able to provide the same enforceability of rights and freedoms as EU citizens can go straight to court in case of any violation, something which is not possible under an international agreement.

The last sub-question assessed the solvability of the problems caused by a hard Brexit, that is, the viability of a comprehensive, all encompassing, FTA, possibly with a customs union, in the context of UK politics. The analysis showed that the research problem is unsolvable as UK Parliament is not used to making concessions and Brexit only makes this worse. In itself, the research problem is not wicked but rather complex, leaning towards politically turbulent. It can, at least to a large extent, be solved by a comprehensive FTA. However, this FTA needs to be comprehensive enough to cover, at least, WTO's GATS and GATT. The UK will have to compromise and make certain concessions. Not only in Parliament, but also in their negotiations with the EU. So far, there has been no proof that they are willing to do so. Nor is it likely that they are willing to do so in the future as certain aspects of the FTA are irreconcilable with Brexit rhetoric.

This seems to confirm the more general assumption in chapter 2 that the problems that a hard Brexit causes for access to cross-border curative healthcare on the island of Ireland are not solvable. The insolvability of the research question is not due to the inherent nature of the problem, but rather to the political context in which the problem needs to be solved. It also brings us to answering the research question:

What are the consequences of a hard Brexit for the access to cross-border curative healthcare on the island of Ireland?

The analysis showed that the access to cross-border curative healthcare on the island of Ireland will be considerably reduced, as it is unlikely that the necessary FTA to maintain this access will be realized. This reduction will be the greatest for cross-border emergency care as the movement of the healthcare professional will then effectively come to an end. The reduction of access to cross-border secondary and tertiary care will be modest as long as it is only the patient that crosses the border, which is usually the case with these types of healthcare. However, the main problem for healthcare will be that after a hard Brexit, citizens will not be reimbursed for it as before. They will probably be able to ‘buy’ special additional coverage for cross-border healthcare on the island of Ireland, but the reimbursement would still be significantly less.

The analysis also confirmed the assumption in chapter 2 that the political context of a problem can make that problem unsolvable, even when that problem is not wicked. The research problem is not wicked, yet it will, in all probability, not be solved. In this specific research case this was attributable to the UK’s unwillingness to compromise. When there is a high level of political distance and no single-party majority, there is a need to make concessions and compromise for decision-making to take place. However, partly due to the UK’s political history of not being accustomed to compromising, British MPs do not seem to want to make any concessions in their idea of the implementation of Brexit. This will not only be problematic for decision-making in Parliament, but also in the UK’s negotiations with the EU. This finding contributes to the improved understanding of the insolvability of policy problems that governments face. However, two things must be emphasized here. First of all, the political context of a policy problem differs between countries. It may, therefore, be that the above analysis of the political context may differ between countries. It may also be that there is a high level of willingness to compromise in government, but that the policy problem nonetheless

seems to be unsolvable. This does not invalidate the importance of the willingness to compromise. Rather, and this brings us to the second thing to be emphasized, it shows that while the unwillingness to compromise seems to be a sufficient determinant to make a problem unsolvable, it is not a necessary determinant. Unsolvable problems are not limited to countries in which parliament is unwilling or unable to compromise. Rather it is one of a range of possible causes of unsolvability

All in all, this research has two important implications for the future. First of all, this research shows that with the current trend in UK Parliament, both Northern Ireland and the Republic need to start making preparations for Brexit to keep providing their citizens with access to healthcare. Cross-border healthcare was responsible for a significant amount of this access, as a result of which the general access to healthcare will be reduced too. This risk of general reduced access to healthcare is not a subject that should be taken lightly. Reduced access to healthcare do not only make daily life more difficult, but in the case of emergency care it can also mean the end of a life. Without cross-border emergency care, the response time of ambulances for patients in border areas will increase considerably. In a number of cases this could make the difference between life and death.

Secondly, future research focussing on the concept of the wicked problem should consider the political context of a policy problem to be a contextual determinant of the solvability of policy problems. In the last few years, there have been increasing attention for the political dimension of wicked problems. Brexit offers many possibilities to further develop our understanding of the concept of the wicked problem. Furthermore, political fragmentation and polarization, two main aspects of political distance in this research, has been increasing in a number of countries in the past few years. The need to compromise and the unwillingness to do so may therefore also be. This creates the opportunity to further develop the notion of the political context of policy problems, wicked or not.

Table 3: Access to cross-border curative healthcare on the island of Ireland			
	Pre-Brexit	Post-Brexit	Post Brexit with alternative structures
Right to cross-border healthcare	Directive 2011/24/EU Regulation 883/2004/EC CTA	CTA	CTA FTA complying with GATT and GATS
Secondary care	All	All	All
Tertiary care	All	All	All
Emergency care	All	All	All
Existence of cross-border healthcare	Directive 2011/24/EU EU funding 1998 Agreement CAWT	1998 Agreement CAWT	1998 Agreement CAWT PEACE Plus (?)
Secondary care	Directive 2011/24/EU 1998 Agreement CAWT	All	1998 Agreement CAWT
Tertiary care	All	All	All
Emergency care	All	All	All
Physical accessibility of cross-border healthcare	The free movement of people, services and goods Directive 2012/52/EU Directive 2005/36/EU Free movement of data CTA	CTA	CTA FTA complying with GATT and GATS
Secondary care	Free movement of people	All	All

	Directive 2016/679/EU CTA		
Tertiary care	Free movement of people Directive 2016/679/EU CTA And to a certain extent (unclear how much): Free movement of goods and services Directive 2005/36/EU	All	All
Emergency care	All	All	
Reimbursement of cross-border healthcare	Directive 2011/24/EU Regulation 883/2004/EC Free movement of services	X	FTA complying with GATS Bilateral reciprocal healthcare agreements
Secondary care	All	X	FTA complying with GATS Dependent on the extent of future reciprocal healthcare agreements
Tertiary care	All (but slightly more Regulation 883/2004/EC)	X	FTA complying with GATS Dependent on the extent of future reciprocal healthcare agreements
Emergency care	All (but mainly Regulation 883/2004/EC)	X	FTA complying with GATS

			Dependent on the extent of future reciprocal healthcare agreements
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APPENDICES

APPENDIX A: DOCUMENT ANALYSIS

Table 3 contains a list of the documents used for the document analysis. The document ‘types’ that were used to structure the data are ‘policy documents’, ‘informative documents’, ‘websites’ and ‘scientific literature’, each subdivided in document ‘categories’. The ‘document’ name of the ‘informative documents’ and ‘scientific literature’ documents is based on their in-text reference. The title of these document can be found in the reference list. The ‘general subject’ refers to the content of the document. This column refers to the main codes in the analysis. The last column, ‘document group’, refers to the part of the analysis.

Table 4: list of documents used for the document analysis					
Document type	Document category	#	Document	Theme	Document group
Policy Documents	Legislation		Directive 2016/679/EU	Data movement	EU Health legislation
			Directive 2015/566/EU	Medical goods	
			Directive 2015/565/EU		
			Directive 2012/52/EU		
			Directive 2012/39/EU		
			Directive 2012/25/EU		
			Directive 2011/24/EU	Cross-border healthcare reimbursement; Cross-border cooperation	

			Directive 2010/45/EU	Medical goods	
			Directive 2009/135/EC		
			Directive 2005/61/EC		
			Directive 2005/36/EC	Health services	
			Directive 2004/33/EC	Medical goods	
			Directive 2004/27/EC		
			Directive 2004/23/EU		
			Directive 98/79/EC		
			Directive 95/46/EC	Data movement	
			Directive 93/42/EEC	Medical goods	
			Directive 93/16/EEC	Medical services	
			Directive 90/385/EEC	Medical goods	
			Regulation 2018/0196/COD (Proposal)	Funding	
			Regulation (EU) 2017/2185	Medical goods	
			Regulation (EU) 2017/746		
			Regulation (EU) 2017/745		
			Regulation (EU) 2016/679	Data movement	
			Regulation (EU) 1303/2013	EU Funding	
			Regulation (EU) 1299/2013		

			Regulation (EC) 883/2004	Cross-border healthcare reimbursement	
			Regulation (EC) 726/2004	Medical goods	
			Protocol 20	Cross-border rights	National structures
			Ireland Act 1949		
			Aliens Act of 1935	Cross-border rights	National structures
			The Interpretation Act of 1937		
			Alien (Exemption) Order of 1999		
			The Immigration Act of 1999		
	Court cases		Case C-158/96, Raymond Kohll v. Union des caisses de maladie, Judgment of 28 April 1998	Cross-border healthcare reimbursement	EU Health legislation
			Case C-120/95, Nicolas Decker v. Caisse de maladie des employés privés, Judgment of 28 April 1998		
			Case C-157/99, B.S.M. Geraets-Smits v. Stichting Ziekenfonds VGZ and H.T.M. Peerbooms v. Stichting CZ Groep		

				Zorgverzekeringen, Judgment of 12 July 2001		
				Joined Cases C-286/82 and C-26/83 Luisi and Carbone		
	Agreements			British-Irish Agreement of 1999	Cross-border cooperation	National structures
				1998 (Belfast/ Good Friday) Agreement		
				1992 Ballyconnell Agreement		
				Convention on Social Security Rights	Cross-border rights	
				Memorandum of Understanding (MoU) on the Common Travel Area (CTA)		
				General Agreement on Trade in Services (GATS)	Health services	Post-Brexit
				General Agreement on Tariffs and Trade (GATT)	Medical goods	
	Treaties			Treaty on the Functioning of the EU (TFEU)	Four freedoms	EU Health legislation
Informative documents	Report	Brexit		European Union Committee (2018)	Cross-border healthcare reimbursement	Post-Brexit
				European Union Committee (2017)	Cross-border rights	

				De Mars, Murray, O'Donoghue & Warwick (2017)	Health services + Medical goods		
				O'Ceallaigh et al. (2017)	Cross-border rights		
		Other		European Commission (2019)	Cross-border healthcare reimbursement		EU Health legislation
				European Commission (2004)	Data movement		
				Bidgood (2013)	Cross-border healthcare reimbursement		
				WTO (2011)	WTO rules		
	Paper			Audickas, Cracknell & Loft (2019)	Politics	Theoretical application	
				Murray, O'Donoghue & Warwick (2018)	Brexit	National structures	
				De Mars, Murray, O'Donoghue & Warwick (2018)	Cross-border rights		
				De Mars, Murray, O'Donoghue & Warwick (2016)			
				Baeten, Vanhecke& Coucheir (2010)	Cross-border healthcare reimbursement	EU Health legislation	
	Book			Blouin, Drager & Smith (2005)	Health services	Post-Brexit	

Websites	EU		European Commission (2015; n.d., A&D&E)	EU Funding	EU Health legislation
			European Commission (2018; n.d., C)	Data movement	
			European Commission (2004)		
			European Parliament (n.d., A&B)	EU Funding	
			Interreg EU		
			Keep.EU		
	UK Government		UK Parliament (n.d., B)	Politics	Theoretical application
			HM Government (2019A)		Post-Brexit
			HM Government (2019B)	Cross-border rights	
			Department for Existing the EU (2017)		
			Select Committee on the European Union (2017)	Cross-border healthcare reimbursement	
	Government of the Republic of Ireland		Department of Foreign Affairs and Trade (n.d.)	Cross-border rights	
	(Social) Media		Euronews (2019)		
			The Guardian (2019)		
			The Irish Times (2019)		
			Twitter (Emma DeSouza)		

	Other		Citizens Information (n.d.)	Cross-border healthcare reimbursement	National structures
			CAWT (n.d.)	Cross-border cooperation	
			North South Ministerial Council (n.d., a&b)		
			NHS (n.d., a&b)	Cross-border healthcare reimbursement	
Scientific literature	Journal Articles		Hobolt, Leeper & Tilly (2018)	Politics	Theoretical application
			Hobolt (2016)		
			Andersen & Storm (2015)	Data movement	EU Health legislation
			Greer, Hervey, Mackenback & McKee (2013)		
			Bellamy (2012)	Politics	Theoretical application
			Diez & Hayward (2008)	Four freedoms	EU Health legislation
			Horgan (2008)	Cross-border cooperation	National structures
			Teague & Henderson (2006)		
			Hayward (2006)		
			Peeters (2005)	Medical services	EU Health legislation
			Hatzopoulos (2002)	Health services	
			Tannam (2001)		

			O'Leary (2001)	Cross-border cooperation	Cross-border cooperation
	Book		Mossialos, Baeten, Permanand & Hervey (2010)	Four freedoms	EU Health legislation
			O'Leary (2001) (Book chapter)	Cross-border cooperation	National structures

APPENDIX B: IN-DEPTH INTERVIEWS

Of the experts with whom in-depth interviews have been conducted, five are scientific scholars. Two of these scholars, Henk van Houtum and Cathal McCall, are experts on cross-border cooperation. **Henk van Houtum** is the Head of Nijmegen Centre for Border Research and an expert in European border policy and in cross-border cooperation. He does not possess specific knowledge on the Irish border and Irish cross-border cooperation, but he can provide insight as to European policy regarding external EU borders and the meaning of a changing border for cross-border cooperation.

Cathal McCall is a professor European Politics and Borders at Queen's University in Belfast, and, inter alia, an expert in cross-border cooperation and Ireland. He has written articles and chapters that touch on the themes of Brexit, the island of Ireland, the Irish border, cross-border cooperation, and European integration. He has the expertise and insight to deliver valuable information about the island of Ireland specifically and to outline scenarios for the future.

Sylvia de Mars and Aoife O'Donoghue are both experts in international law and worked on many policy papers on Brexit together. **Sylvia de Mars** is a senior lecturer in law at Newcastle Law School and gave both oral and written evidence to the Northern Ireland Affairs Committee on the land border between Northern Ireland and the Republic of Ireland. She gave both oral evidence (Northern Ireland Affairs Committee, 2017) as written evidence (De Mars et al., 2017) to the Northern Ireland Affairs Committee on the land border between Northern Ireland and Ireland, and was invited by the Lords Select Committee on the European Union to give evidence on the future UK-EU relationship (Select Committee on the European Union, 2018). She is, therefore, not only able to answer questions regarding the implications of disintegrating EU law in Northern Ireland for the relationship between Northern Ireland and Ireland, but she can also give a certain insight into the possibilities of future scenario's for the

relationship between Northern Ireland and Ireland taking into account that Ireland will keep having a commitments to the EU.

Aoife O'Donoghue is a professor in international law at Durham University and is invested in research into Brexit and Northern Ireland. She worked on various policy papers on the specific issues that a Brexit causes for Northern Ireland. She is, therefore, able to answer questions about the implications of Brexit on the bilateral agreements between Ireland and Northern Ireland and about the future of those bilateral agreements.

The last expert, **Nick Fahy**, is an expert in health systems. He is a senior researcher at the University of Oxford and consultant in health policy and systems. He has a background in international health policy, among which working for the European Commission, and co-authored a book on European health policy. He has written several articles on the effect of Brexit on the health sector in the UK, in which he explores what the different effects on health are in different scenarios of Brexit. He will be able to identify the key aspects of healthcare policy that at a very minimum need to be preserved and will be able to answer some additional questions based on his articles on the effect of different types of Brexit on healthcare in the UK.

In addition to these five scientific experts, one expert is the acting director at the Centre for Cross Border Studies in Armagh. This centre has been publishing research reports on cross-border cooperation on the island of Ireland. **Antony Soares** was also asked to give evidence to the Select Committee on the European Union of the House of Lords for their report “*Brexit: Reciprocal Healthcare*” (Select Committee on the European Union, 2017). From that evidence it became clear that mister Soares possesses an extensive amount of detailed information and insight of the impact of Brexit on cross-border cooperation, among which cross-border cooperation in healthcare.

The last two experts, Bernie McCrory and Mark Dayan, are officers. **Bernie McCrory** is the Chief Officer at the CAWT, a voluntary partnership between the health services in Northern Ireland and the Republic of Ireland, and as such was also asked to give evidence to the House of Lords. She is able to shed more light on the consequences of a hard Brexit on the CAWT. **Mark Dayan** is a Policy and Public Affairs Analyst at Nuffield Trust, which is an independent health think tank. He also gave evidence to the House of Lords on reciprocal healthcare and Brexit. He is able to provide more specific information about reciprocal healthcare arrangements and the NHS combined with Brexit.