

**AN ANALYSIS OF NORWEGIAN WAITING TIMES FOR ELECTIVE  
SECONDARY HEALTH CARE IN AN OECD CONTEXT:**

THE NEED FOR INTERNATIONAL COLLABORATION TO FACILITATE CROSS-  
COUNTRY COMPARISONS OF HEALTH CARE AVAILABILITY

*- CHALLENGES AND POTENTIAL PROSPECTS -*

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## EXECUTIVE SUMMARY

In Norway, the issue of waiting times, has long been one of the major health policy concerns. In order to place the Norwegian situation in an international context, nine other OECD member countries have been chosen, based primarily on similar health care status and percentage of GDP health care spending. Due to national variations of how waiting times are measured and assessed, as well as some countries not monitoring data on the issue, the comparability of waiting times on a cross-border level provides several challenges. The thesis explores why the issue of waiting times is treated differently, and how international comparisons possibly can improve the procedures in all countries, to ultimately benefit the patient.

A literature review of systematic differences and similarities in how waiting times for elective care are measured, or not measured, within the ten different countries, was performed. Through an analysis of the established framework, key areas, where cross-country comparisons of national waiting times pose particular challenges, were identified. With the support of interviews and contacts with key experts and policy makers, the discussion of the findings in the analysis, aimed at suggesting potential measures for improving cross-country comparisons of waiting times.

The following key challenges were identified: 1) The lack of standardization, in terms of: a) the absence of a common definition of hospital waiting time, b) the conceptual differences of the patient journey, and c) the lack of uniform measurements. Furthermore, the challenge of 2) ensuring quality of data, as well as 3) the few relevant studies and best practice exchanges, were identified. Given national sovereignty and systematic differences in how waiting times are defined, the complicated nature of creating a standardized definition of waiting time within the OECD, suggests that the focus should rather be on creating comparable data and standardizing the patient journey. A model was developed, along with a suggested minimum set of required data for registration, as a suggestion to how a standardized organization of waiting could look. Furthermore, the thesis highlights the need for more studies to be made, as well as exchanges of best-practice and increased attention in international fora.

## ABBREVIATIONS:

<b>EC</b>	European Commission
<b>ECHI</b>	European Core Health Indicators
<b>ECHIM</b>	European Core Health Indicators Monitoring
<b>ECJ</b>	European Court of Justice
<b>EU</b>	European Union
<b>FYROM</b>	Former Yugoslavian Republic of Macedonia
<b>GDP</b>	Gross Domestic Product
<b>GP</b>	General practitioner
<b>HIS</b>	Health Information System
<b>HOPE</b>	European Hospital and Healthcare Federation
<b>KCE</b>	Belgian Health Care Knowledge Centre
<b>NHS</b>	National Health Services
<b>NPR</b>	Norwegian Patient Register
<b>OECD</b>	The Organization for Economic Cooperation and Development
<b>RHA</b>	Regional Health Authorities
<b>RTT</b>	Referral to Treatment Time
<b>SALAR</b>	Swedish Association of Local Authorities and Regions
<b>SHI</b>	Social Health Insurance
<b>WHO</b>	World Health Organization

## 1. INTRODUCTION

In Norway, the issue of waiting times, has long been one of the major health policy concerns, and equity, in terms of access to health care, therefore has particular relevance in Norwegian health care politics. In its' regular report, *Perspektivmeldingen*, presented to the Parliament on the most important economic challenges in Norway today, the Norwegian government, declared improving the current state of waiting times, as one of the areas to improve efficiency in the public sector. The Norwegian Minister of Health and Care Services, Bent Høie, furthermore addressed the government's ambitions to reduce hospital waiting times, in is recent *Hospital Speech 2017*.

Measuring waiting times for elective secondary care is an important topic in many of the OECD member countries. In order to place the Norwegian situation in an international context, nine other OECD member countries have been chosen, based primarily on similar health care status and percentage of GDP health care spending. Due to the scope of national variations of how waiting times are measured and assessed, as well as the fact that some of the countries in the sample do not monitor or publish statistical data on the issue, the comparability of waiting times on a cross-border level provides several challenging aspects.

This study aims at finding out why, in comparable health systems, the issue of waiting times is treated differently, and how international comparisons possibly can improve the procedures in all countries, to ultimately benefit the patient.

## 2. METHODOLOGY

### 2.1. Main focus and thesis structure:

This thesis focuses on waiting times for patients in the somatic sector, receiving elective treatment by secondary health care providers. In the Norwegian context, this refers to health care providers under contract with Regional Health Authorities (RHA). Elective treatment means treatment which is not *emergency*, and which has been planned by the hospitals. Furthermore, the focus is on waiting times and not waiting lists. The latter refers to how many

patients are waiting for treatment, while waiting time refers to *how long* these patients have been, or still are, waiting to receive treatment.

The thesis firstly describes a general theoretical framework, aiming at comparing the Norwegian model of hospital waiting times to that of nine other countries of the Organization for Economic Cooperation and Development (OECD). This is done by examining waiting times for elective treatment in Norway and illustrating the OECD context.

Furthermore, a literature review and analysis, regarding the issue of waiting times in the Norwegian- and the OECD- context, is performed. The research is based on scientific articles, official documents and grey literature. The documentation has been retrieved using Oria, which is the online library at the University of Oslo, PubMed, Google and Google Scholar. Government websites and the websites of national and international organizations, provided additional information. Furthermore, reference lists of articles were used to find relevant sources.

In the Analysis Chapter, the thesis aims at identifying key areas, where cross-country comparisons of national waiting times pose particular challenges. It examines the established theoretical framework, in order to uncover where potential improvements may be made.

Through a discussion of the findings in the analysis, the thesis aims at suggesting potential prospects for improving cross-country comparisons of waiting times. With the support of a number of interviews and contacts with key experts and policy makers, the thesis aims at exploring and suggesting possible future measures for improving cross-border comparisons of hospital waiting times in the OECD-context.

## **2.2. Criteria for the selection of relevant OECD countries in the sample:**

Ten OECD countries, Norway included, have been selected based on similarities in health care status and health expenditure, in terms of percentage of Gross Domestic Product (GDP). Further criteria consist of including countries which monitor hospital waiting times, as well as those who do not, in order to examine the impact this has on cross-country comparisons.



In addition, differences in terms of the political attention given to the issue of waiting times, as well as the various levels of importance with regard to policy-making, are further inclusion criteria, which aim at properly illustrating the variety of concepts and perceptions within the sample countries of the thesis.

The following countries have been included: Austria, Belgium, Denmark, England, Finland, France, Germany, the Netherlands, Norway and Sweden.

### **2.3. Research questions and goal:**

*The research question* aims at examining the relevance of cross-country comparisons of health care availability, from a Norwegian perspective, in the case of waiting times for elective, secondary health care. Furthermore, it aims at identifying the key challenges with such comparisons, along with potential prospects for improvements.

By comparing the Norwegian model for hospital waiting times to that of nine other OECD countries, the thesis aims to identify key areas of limitation within the current framework and to give suggestions for possible future development.

Two main questions are asked:

1. What are the main challenges regarding an international comparison of hospital waiting times for elective treatment?
2. What are possible measures to overcome the identified challenges?

The *overall goal* of this thesis is to highlight the importance of cross-country comparisons for Norway, both on a bilateral and on a multilateral level, in order to further develop and improve the situation related to the state of waiting times in Norway today. It is evident from the general public concern, along with the great GDP spending and political relevance, that the issue of long waiting times for elective treatment in Norwegian hospitals, is one of the greatest challenges the current health care system faces today.

By highlighting the diversity with which 10 different OECD countries have addressed the issue of hospital waiting times, this paper aims at illustrating the potential that lies in international

collaboration, and furthermore develop suggestions for approaching the main challenges of cross-country comparisons of waiting times.

### **3. DEFINITIONS AND GENERAL FRAMEWORK**

There are several elements which may affect access to health care. Most common are financial influences, geographical barriers, which create inconvenience by the necessity to travel, and more structural obstacles, such as waiting times. In OECD member countries, 3% of the population on average stated restricted access to care because of financial costs, geographical distance or waiting lists (OECD, 2015). Furthermore, the geographical allocation of health care personnel, equipment and facilities, has an impact on the accessibility of health care in many OECD-countries (Paris, Devaux, & Wei, 2010).

Waiting time is an indicator illustrating to what extent a population has so called *timely access* to health care (OECD, 2015). The focus of the thesis concerns access to elective hospital procedures.

#### **3.1. What are hospital waiting times and how do they arise?**

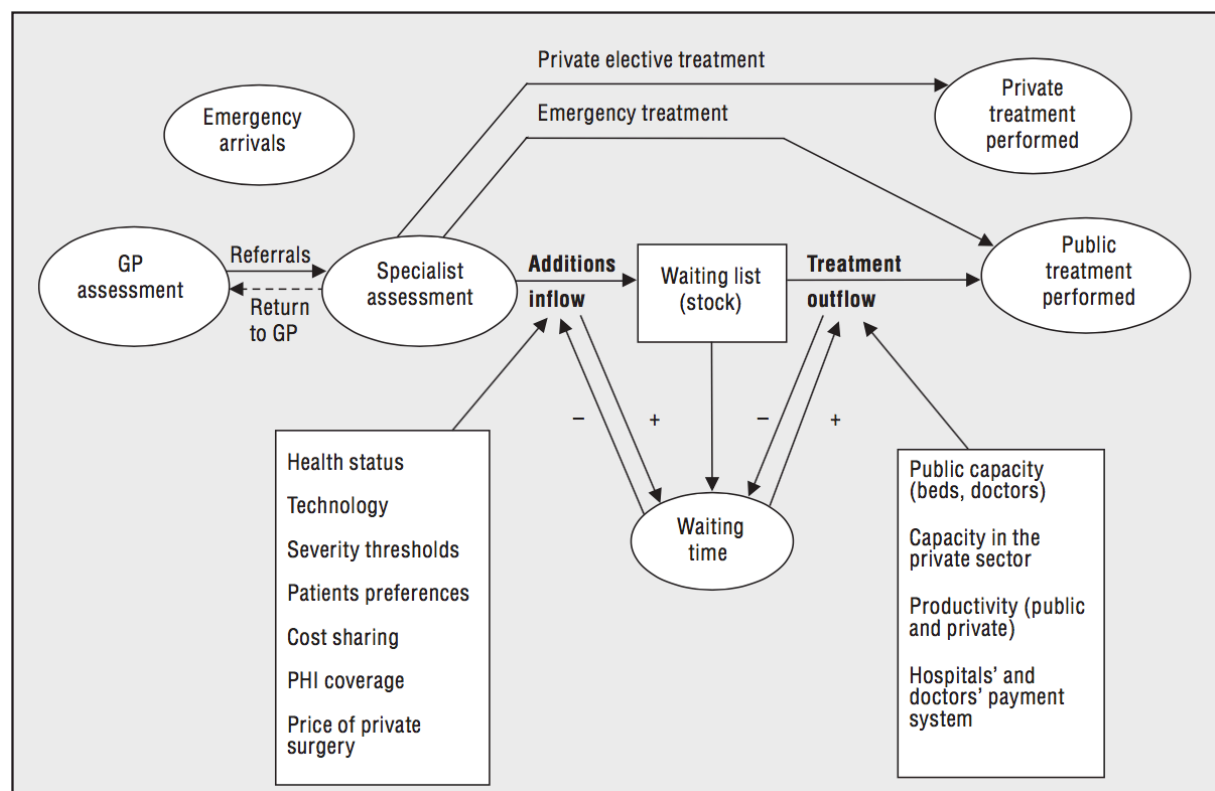
The traditional explanation of queue formation and waiting is often found in the interaction between supply and demand, where an imbalance between the two may result in the formation of a bottleneck. In the case of waiting times in healthcare, demand exceeds supply, which results in the formation of a queue (SALAR, 2011). *Supply*, in this context, refers to the healthcare service provider, while *demand* represents the patient waiting for a healthcare service.

One definition of queueing theory is: “the equation that defines the relationship between demand, capacity and queues/wait time when there is significant variability” (Palvannan & Teow, 2012). Queueing theory thereby provides the possibility of producing information, which can be used to analyze the demand side on a more efficient level. An improved understanding of the relationship between demand and supply, is an important element when looking to better the management of waiting times (HOPE, 2001).

Palvannan & Teow identify four main elements which have an effect on the waiting time of a patient. They consist of the following: the average patient demand, the average service rate and the variation in both (Palvannan & Teow, 2012). This formation of waiting time is seemingly caused by the fluctuations in demand not being answered by adapting the capacity, rather than the assumption that demand simply exceeds supply (Eriksson, Bergbrant, Berrum, & Mörck, 2011).

Figure 1 illustrates how waiting times often arise due to the capacity constraints found in standard health care systems. Patients, either referred by general practitioners (GPs) through a gatekeeping system, or with direct access, due to no gatekeeping system or as an emergency, enter into specialist health care. The severity of the case, determines the pace with which patients are treated.

Figure 1.: Representation of how hospital waiting times for elective treatment arise.



Source: (Siciliani & Hurst, 2005).

The scope of this thesis does not cover specific reasons for why long waiting times arise, but it does address some of the key areas which affect this phenomenon. An extrinsic factor which

proves important with regards to waiting times is the *type* of health care system in place. In Europe, there are two types of health care systems to be found.

The first is the Beveridge-model, the National Health Service (NHS), which is based on a national insurance scheme through general taxation. The second type of health care system, is the Bismarck-model, which bases its financing on social health insurance (SHI) (van der Zee & Kroneman, 2007).

It is stated that challenges with long hospital waiting times for elective care is a phenomenon which often times affect those countries with a national public health care systems, rather than those with a social insurance based model. One possible explanations for this, is the role of the payment system, which, in the NHS system, often relies on salaries and fixed payments, rather than the insurance based remuneration system (Siciliani, Borowitz, & Moran, 2013). Table 1 shows the type of health care system found in the different OECD countries in the sample:

Table 1: Type of Health Care Systems within the ten OECD countries.

<b>Country:</b>	<b>Health Care System:</b>	
	<b>SHI</b>	<b>NHS</b>
<b>Austria</b>	X	
<b>Belgium</b>	X	
<b>Denmark</b>		X
<b>England</b>		X
<b>Finland</b>		X
<b>France</b>	X	
<b>Germany</b>	X	
<b>The Netherlands</b>	X	
<b>Norway</b>		X
<b>Sweden</b>		X

SHI: Social Health Insurance based health care system, NHS: National Health Service

Source: (van der Zee & Kroneman, 2007); own representation.

### **3.2. Framework for waiting times in the Norwegian context:**

#### 3.2.1. Access to care and the issue of hospital waiting times for elective treatment in Norway

Access to care is of particular value in Norwegian health care and holds a longstanding place in the country's healthcare ideology. This ideology has, to a large degree, focused on virtues of equity and equality. One of the fundamental pillars of the publically funded Norwegian health care system, is the concept of equal access, which exists on both a geographical and a financial level (HOD, 1997).

The issue of equity in terms of bettering the access to health care through reduced hospital waiting times, therefore holds a particular relevance in Norwegian health care policy. In the recent government published *Perspektivmeldingen*, an annual document to the Norwegian Parliament, which discusses the most important challenges for Norway today, the issue of improving the current situation of waiting times is specifically mentioned, as one of the key areas to improve efficiency in the public sector (Finansdepartementet, 2017).

In his recent *Hospital Speech 2017*, the Norwegian Minister of Health and Care Services, Bent Høie, addressed the ambitions of the current government to further reduce waiting times for treatment in all regional health authorities in Norway (Høie, 2017). The new goal of 2017, aims at reducing the average waiting time to less than 60 days.

#### 3.2.2. The definition of hospital waiting times in Norway

Waiting time, as defined by the Directorate of Health in Norway, is the time it takes from the moment a place of treatment receives a patient referral, until the time of consultation or treatment (Helsedirektoratet, 2017b). In other words, how many days does a patient wait from the time a hospital receives the letter of referral, until the patient meets with a specialist, either for a consultation or for treatment?

The waiting time for Norwegian patients, within the somatic, non-emergency sector, which is the focus of this thesis, may be divided into the three following types (Helsedirektoratet, 2017b):

- 1. Examination** (*utredning*) is defined as the time it takes from a place of treatment receives a referral to the time the patient receives the consultation or the examination.
- 2. Day Treatment** (*dagbehandling*) is defined as the time it takes from the patient has received a consultation or examination to the time the treatment starts. This includes ambulatory care or out-patient care (*poliklinisk behandling*), but not admissions.
- 3. Admittance/Admission** (*innleggelse*) is defined as the time it takes from the patient has received a consultation or examination to the time the treatment starts.

The following example illustrates what this might look like in practice:

Example:

A patient is referred by their regular GP to a nearby hospital for a consultation. The hospital is required to assess this referral within a maximum of 10 working days, upon which the patient receives an appointment for an out-patient care consultation. The time it takes from the hospital receives the referral, until the patient is given a date for an examination, is defined as type **1. Examination**. In this example, the patient waited seven working days.

From the examination at the hospital, it is decided that the patient will undergo a minor surgical procedure in 5 weeks. This time is defined as type **2. Day Treatment**.

The overall waiting time for this patient is equal to Type 1 + Type 2, which is seven days + five weeks, resulting in a total waiting time of six weeks.

Source: based on (Helsedirektoratet, 2017b)

### 3.2.3. Measuring and monitoring hospital waiting times in Norway

Waiting times are routinely collected on national level in Norway and made available to the public. Information, concerning close to 220 different examinations and treatments within somatic care, mental health care and care related to substance abuse, are registered and monitored (Helsedirektoratet, 2017b). The data, published online at *helsenorge.no/velg-behandlingssted*, is updated every 4 weeks, and the waiting times are reported by hospitals all over the country. These specialist health services include all public places of treatment and certain private ones, all of which are under contract with the Regional Health Authorities.

Registration is conducted by so called *waiting time coordinators*, translated from *ventetidskoordinatorer*. These coordinators reside at the place of treatment, and report through *Helsetjenestekatalogen*, found at *Norsk Helsenett*. The recording specialist health services are responsible for the validity of the numbers, which they report (Helsedirektoratet, 2015a).

For each place of treatment, data concerning different elective treatments, is presented as the *average number of weeks* for each of the three stages, explained in section 3.2.2. An example of how this is presented, in the case of arthroscopic surgery of the meniscus, can be seen here: <https://helsenorge.no/velg-behandlingssted/ventetider-for-behandling?bid=57>.

Based on the presented average numbers of weeks, the Norwegian public, as well as GPs, are given the opportunity to choose where they wish to be treated or refer patients to, respectively. This is known as *free choice of specialist health services*, translated from *fritt sykehusvalg*. As of November 1<sup>st</sup> 2015, this was renamed *free choice of treatment*, translated from *fritt behandlingsvalg* (HELFO, n.d.).

Statistics concerning patient waiting times, on a national- and a health regional-level, are conducted by the Norwegian Patient Registry (NPR), a subdivision of the Directorate of Health in Norway. The measurements, used by the NPR are median, average and 90. percentiles (Karstensen & Håndlykken, 2017).

The statistics from the NPR are used as a base for ensuring quality and improved management of the secondary health care. Furthermore, it is regarded as a tool to estimate supply and

demand, as well as the overall capacity, on a general level and within individual institutions (Helsedirektoratet, 2015b).

Although this will not be explored further in the thesis, it is interesting to mention how the NPR divides patients waiting for treatment into three further categories, in order to provide information on a national-, rather than a regional-, level. These three divisions are used to give a detailed insight into the nature of the waiting lists:

- *Newly referred* (Nyhenviste): defined as the number of referrals which have been reviewed and added to a waiting list within a certain period, for example: every four months.
- *Ordinarily removed* (Ordinært avviklede): defined as the number of referrals which have been ordinarily removed from the waiting list within a certain period, for example: every four months.
- *In waiting* (Ventende): defined as the number of those waiting to receive care within a certain period, for example: every four months.

For example, the population in Norway has, since 2008, grown by 1,3% every year (*Høringsnotat: Fritt behandlingsvalg*, 2014). This comprises a significant external driving force in the increased number of newly referred (*nyhenviste*) patients, which has an effect on the overall waiting list. By using these categories, the NPR is able to provide additional, detailed information, which can contribute to explain changes and effects in the overall waiting time for different procedures.

One of the main ambitions of the official publications of waiting times for elective hospital treatment in Norway, is to provide patients with realistic and up-to-date information, which will support them in their choice of where to seek treatment.

Additionally, the monitoring of waiting times for elective treatment is regarded as an important tool to increase transparency and improve quality within Norwegian secondary health care (HOD, 2015). Transparency and easily accessible information concerning the state of waiting times, thereby highlight an important principle of Norwegian health care policy.



In 2016, the average waiting time in Norway was 61 days, a decrease of nine days compared to the previous year (Karstensen & Håndlykken, 2017).

### **3.3. Framework for waiting times in the OECD context:**

#### 3.3.1. Access to care and the issue of hospital waiting times for elective treatment in the OECD sample countries

Concern for long waiting times for elective treatment is not only a priority in Norway. There is a clear consensus amongst many OECD countries (Austria, Denmark, England, Finland, the Netherlands, Norway and Sweden) that waiting time composes a highly important policy concern, mostly at national policy level. In three of the countries in the sample (Belgium, France and Germany) there is less focus on measuring waiting times, presumably because it is not considered to be a significant problem. However, a study by Viberg, Forsberg, Borowitz & Molin, stated that it cannot be concluded that waiting times are not a problem in countries, who do not have a national monitoring system in place (Viberg, Forsberg, Borowitz, & Molin, 2013).

Table 2: Shows monitoring of waiting times within the different countries, and whether or not the issue of waiting times is a policy concern.

<b>Country:</b>	<b>Are waiting times an issue for elective surgery?</b>	<b>Are waiting times a significant national policy issue?</b>	<b>Are national statistics on waiting times in place?</b>
<b>Austria</b>	Yes.	Yes.	Not systematically and only on provincial level.
<b>Belgium</b>	No.	No.	No
<b>Denmark</b>	Yes.	Yes.	Yes, on a national level.

<b>England</b>	Yes.	Yes.	Yes, on a national level.
<b>Finland</b>	Yes.	Yes.	Yes, on a national level.
<b>France</b>	No.	No.	No
<b>the Netherlands</b>	Yes	Yes.	Yes, on hospital level.
<b>Norway</b>	Yes.	Yes	Yes, on a national level.
<b>Germany</b>	No.	No.	No.
<b>Sweden</b>	Yes.	Yes.	Yes, on a national level.

Source: (SALAR, 2011; Siciliani et al., 2013; Viberg et al., 2013) ; own representation.

In the Netherlands, waiting times have been decreasing over several years, and accessibility to care is considered good. In comparison with other nations, waiting times for elective surgeries in the Netherlands, is considered to be short (Siciliani, Moran, & Borowitz, 2014). Furthermore, the position of patients has been empowered through policies which increased the focus on patient choice and the general participation of patients. Through the Quality Institute for Care, which is part of the National Healthcare Institute, health care providers are legally obliged to report waiting times, which are made publically available at [www.kiesbeter.nl](http://www.kiesbeter.nl). (Kroneman et al., 2016).

In Denmark, the issue of transparency within the health care system has proven to be of great political importance. As a result, information concerning waiting times to public hospitals are made available to the general public, at [www.sundhed.dk](http://www.sundhed.dk) (Olejaz et al., 2012). In similarities with the Netherlands, waiting times for elective treatment in Denmark are also considered to be relatively low, compared to other OECD countries (Siciliani et al., 2014).

The Swedish health care system has struggled with long hospital waiting times, and the focus on improving this area has remained an important political- and policy-goal. As of 2012, none of the 21 Swedish county councils fully met the *care guarantee*, highlighting the broad problem of access in the health care system. The Swedish Association of Local Authorities and Regions (SALAR), gathers reported information about waiting times, which are then made available to the public (Anell, Glenngård, & Merkur, 2012).

In Finland, there has been an issue concerning long waiting times for certain elective treatments in secondary care. In addition, there has been significant geographical variations concerning these waiting times, which challenges the concept of equal access to care. This issue was therefore one of the reasons why the Finnish Ministry of Social Affairs and Health, in 2004, defined national guidelines, concerning the access of care for non-urgent procedures (Vuorenkoski, 2008). In the last decade, Finland has seen a reduction in waiting times for elective treatments (Siciliani et al., 2014).

In France, waiting times are not regarded as an issue of particular significance. Interestingly, questions have been raised concerning equity and access to care, due to regional differences in availability of certain specialist care and equipment (Chevreul, Brigham, Durand-Zaleski, & Hernández-Quevedo, 2015).

Austria, which traditionally has not measured waiting times, is in the starting phase of reporting waiting times, but only for a few types of elective surgeries. It is stated that data of quality is mostly available for those conditions, where there is a legal obligation to monitor and report (Hofmarcher, 2013), however there is no legal rule concerning maximum waiting times, only suggestions. Furthermore, this is only done on hospital-level, not nationally, and there is no *systematic form* of how to measure or how to publically report waiting times (Untersweg, 2010).

Access to care in Germany is deemed relatively good, as general waiting times are short or virtually non-existent (Busse & Blümel, 2014). 83% of participants in a Commonwealth Fund survey replied that it had taken less than four weeks to get a specialist appointment, while 78% said that they had waited less than one month for elective surgery (Schoen et al., 2010). In fact, compared to other industrialized nations, Germany reportedly has one of the shortest waiting times for both primary and secondary health care (Busse & Blümel, 2014).

An interesting aspect in Table 2, is that although Germany shows no issue of long waiting times for elective surgery, it does, however, indicate challenges with waiting times in the primary health care, along with outpatient specialty care and cancer care (Siciliani et al., 2013). It could be argued that this element does in fact call for closer consideration and measurement of waiting times, and a need for national monitoring to be in place.

Similarly, a system for monitoring waiting times is not common in Belgian hospitals either, as waiting lists are not considered to be an issue. This is made evident in a report, conducted by the Belgian Health Care Knowledge Centre (KCE), concerning the performance of the Belgian health care system, where indicators regarding waiting times were not included (Vlayen et al., 2010).

Other countries have purchased health care services from Belgium in order to combat long waiting times nationally. For instance, residents of Noord Brabant in the Netherlands have received treatment, mostly elective surgery, at hospitals in Belgium (Gerkens & Merkur, 2010). It is worth questioning the potential consequences such inflows of cross-border care-seeking patients may have on waiting time at local Belgian hospitals, especially with the current system of not monitoring waiting time.

Furthermore, this element raises the question of validity in terms of countries who do not monitor waiting times. Even though waiting times are stated to be low in Belgium, France and Germany, they are, for the most part, reported *anecdotally*, meaning informally (Siciliani & Hurst, 2003). However, as previously mentioned, according to Viberg, Forsberg, Borowitz & Molin, it cannot be concluded that waiting times are not a problem in countries, who do not have a national monitoring system in place (Viberg et al., 2013).

### 3.3.2. The definition of hospital waiting times in the OECD sample countries

Within the OECD framework there is currently no standardized definition of waiting times (Siciliani et al., 2013). The different systemic approaches to when waiting time begins and when it ends, have resulted in a variety of different national definitions (Kalseth, 2010). The implementation of systematic measurements with the ambition of cross-national comparisons,

are thereby made increasingly challenging due to the lack of a common, standardized framework.

The access to secondary care is, in many countries, controlled by GPs. This system is referred to as *gatekeeping*, and aims at ensuring that health care services are used appropriately (Paris et al., 2010). For many of the nations in the sample, it has an important function with regards to waiting time in secondary care, as the definition of when waiting times begin, often relies on referrals from GPs.

Table 3 gives an overview of whether or not registering with a GP is obligatory or incentivized, and whether or not a referral is necessary to access secondary health care. Note to table: However, patients may, in many countries, have direct access to specialist health care, if there are cost-sharing or private actors involved.

Table 3: Shows which countries have a gatekeeping system in place:

<b>Country</b>	<b>Is registering with a GP obligatory?</b>	<b>Is a referral necessary to access specialist health care?</b>
<b>Austria</b>	No.	No, patients have direct access. However, there are incentives.
<b>Belgium</b>	No. However, there are incentives.	No, patients have direct access. However, there are incentives.
<b>Denmark</b>	Yes, this is compulsory.	Yes, this is compulsory. However, patients have direct access to specialist health care when there is cost sharing.
<b>England</b>	No. However, there are incentives.	Yes, this is compulsory.
<b>Finland</b>	No.	Yes, this is compulsory.

<b>France</b>	No. However, there are incentives.	No. However, there are incentives.
<b>Germany</b>	No. However, there are incentives.	No. However, there are incentives.
<b>the Netherlands</b>	Yes, this is compulsory.	Yes, this is compulsory.
<b>Norway</b>	Yes, this is compulsory.	Yes, this is compulsory.
<b>Sweden</b>	No.	No.

Source: (OECD/EU, 2016; Paris et al., 2010); own representation.

It is interesting to note from Table 3 that those countries who do not practice a gatekeeping system, are also the ones that do not measure waiting times on a national level, namely Belgium, France and Germany. As mentioned earlier in part 3.3.1, Austria has only recently started reporting waiting times for a few chosen treatments.

The diversity of various national definitions of waiting time, are largely rooted in the legal frameworks of the different countries. The table below, gives an overview of the national legal acts regarding Patients' Rights and access to care.

Table 4: An overview of national legal framework within the OECD sample countries, and the extent to which waiting times are specifically mentioned.

<b>Country:</b>	<b>Law*:</b>
<b>Austria</b>	<b>Patient Charter:</b> There is no specific mention of waiting times. However, there is a call for further transparency of waiting time for certain elective procedures.  (BMGF, 2017)
<b>Belgium</b>	<b>Patients' Rights Act:</b>

	There is no specific mention of waiting times. (Gerken & Merkur, 2010)
<b>Denmark</b>	<b>Sundhedsloven:</b> Specifically mentions waiting times for treatment. (SUM, 2005)
<b>England</b>	<b>NHS Constitution:</b> Addresses patient rights in access to health services within maximum waiting times. (Boyle, 2011)
<b>Finland</b>	<b>Act on the Status and Rights of Patients:</b> Specifically mentions waiting time and waiting lists. (Vuorenkoski, 2008)
<b>France</b>	<b>Health Insurance Act:</b> Mentions equitable access to health care, but not specifically waiting times. (Chevreul et al., 2015)
<b>Germany</b>	<b>Patients' Rights Act:</b> There is no specific mention of waiting times. (BMJ, n.d. )
<b>The Netherlands</b>	<b>Medical Treatment Agreement Act:</b> Waiting time, however, is specifically mentioned by agreements between insurers, care providers and their organizations, known as <i>Treek/norms</i> . (Kroneman et al., 2016)
<b>Norway</b>	<b>Patients' Rights Act:</b> Specifically mentions <i>time limitations</i> . (Å. Ringard, Sagan, Saunes, & Lindahl, 2013)
<b>Sweden</b>	Patients' rights are not regulated by a specific law, in contrast to the other Nordic countries. A <i>care guarantee</i> is regulated by law and specifically mentions waiting times. (Anell et al., 2012)

\*The name of the law is in English for those cases, where an English translation was available.

Table 4 illustrates how those countries within the sample, who mention waiting time within the Patients' Right framework, also monitor waiting time on a national level. The relationship between national law and hospital waiting time, is highly relevant in how waiting times are defined and measured.

Interestingly, Austria has not developed a system for the measurement of waiting times and thereby does not have a specific definition in place. Furthermore, there are no legally binding waiting time guarantees, simply suggestions. This element has proven to make the national comparisons of waiting times in Austria highly challenging.

In Denmark, the definition of waiting time is interwoven with the legal right of free choice of hospital (*Frit sygehusvalg*), which revolves around a waiting time guarantee of 30 working days. A GP sends a hospital either 1) a referral for examination or 2) a referral for treatment. The hospital then has 30 days upon which to provide the patient with either 1) examination or 2) treatment (SUM, 2016). In this regard, a definition of waiting time could be considered as either 1) from the time a hospital receives a referral until the time the patient is examined or 2) from the time a hospital receives a referral until the time the patient receives treatment.

In the Netherlands, waiting time is defined either as 1) Outpatient care, which counts the time from inquiry until first appointment or as 2) Hospital treatment, which is the time from when it is established that surgery is needed until the operation is performed (SALAR, 2011; Siciliani et al., 2013).

In England, waiting times is considered to start from the time a referral is established or from the time a patient uses the NHS e-Referral Service to book an appointment. The period of waiting lasts until 1) treatment begins 2) based on expert opinion treatment is deemed unnecessary or 3) the patient does not wish to be treated (NHS, 2016; Viberg et al., 2013). This definition is known as Referral to Treatment Time (RTT) (NHS, 2017).

In Finland, the definition of waiting time is closely linked to different waiting time guarantees (HNS, n.d.). An overall definition of waiting time itself is not clearly defined (STM, n.d.), but could be considered as either 1) the time from assessment of referral until outpatient clinic consultation or 2) the time from a decision to treat is made until the treatment starts (SALAR, 2011).



According to the Hospital District of Southwest Finland, waiting time for elective surgery is defined from the time a specialist has deemed the surgery necessary until the time it is performed, which is maximum six months (VSSHP, 2017a). Waiting times for other elective treatment is defined as the time from the place of treatment has received the referral until treatment is given, which consists of a maximum of 3 weeks for the referral to be assessed and a maximum of 3 months for the outpatient treatment to start (VSSHP, 2017b).

The Swedish definition of waiting time for elective hospital care can be divided into 1) from the time a referral is assessed until appointment in the outpatient clinic or 2) from the time a decision to treat has been made until treatment received (SALAR, 2011). They both have a 90 day waiting guarantee (SKL, 2017).

Due to the fact that countries have different approaches to the legal framework of Patients' Rights, the definitions of waiting times therefore show a scope of national variations. The most common forms of interpretation in these countries are the following:

- **IN-PATIENT WAITING TIME:** refers to the time from which a patient is added to the list until the time this patient receives treatment.
- **OUT-PATIENT WAITING TIME:** refers to the time from which a patient is referred by a general practitioner (GP) until this patient receives a specialist visit.
- **REFERRAL-TO-TREATMENT:** refers to the time from which a patient is referred by a general practitioner (GP) until this patient receives treatment.

### 3.3.3. Measuring and monitoring hospital waiting times in the OECD sample countries

The differences in definitions are made additionally complex by the diversity with which they are measured and monitored. At which stage in the patient journey waiting times are recorded, differs across OECD countries.

One further element to consider when comparing different systems for registering waiting time statistics within the OECD, is the *perspective* countries chose to use:

- **RETROSPECTIVE PERSPECTIVE:** where the time of those patients, who have already received treatment, is registered.
- **PRESENT PERSPECTIVE:** looks at current waiting times for those patients still on waiting lists.
- **PREDICTIVE PERSPECTIVE:** gives predictions on how long patients might be expected to wait.

Another element where reported waiting times differ among OECD countries, is in the way they are categorized. The numbers are divided among one or several of the *categories* mentioned below:

- **by PROCEDURE:** which refers to specific treatments, such as hip replacement, etc.
- **by SPECIALITY:** which refers to the specialist area of treatment, such as orthopedics, etc.
- **by ELECTIVE:** which refers to all patients seeking elective treatment.

Furthermore, waiting times are recorded and measured with a certain variation amongst the different OECD countries. *Measurements* are reported as one or several of the figures listed below:

- **MEAN waiting times.**
- **Different PERCENTILES of the waiting time distribution, which includes the MEDIAN.**
- **Patients waiting within different THRESHOLD VALUES for waiting time.**

#### **4. ANALYSIS: IDENTIFYING KEY CHALLENGES OF CROSS-COUNTRY COMPARISONS OF WAITING TIMES**

Studies have shown that waiting times are often linked to revealing the level of efficiency within health care systems (Iversen, 1993; Siciliani et al., 2013). The ability a system has to deliver health care, along with patient satisfaction and the general public perception, have been connected to the measurement of waiting times (Siciliani et al., 2013; Viberg et al., 2013). It is therefore no surprise that hospital waiting times have become a highly relevant policy topic in many countries, and that various OECD nations routinely collect measurements concerning this.

Within the process of properly understanding the scope of improvement in a health care system, policy makers many times rely on a comparison with other systems. Although it is stated as an obvious requirement when analyzing the scope of possible improvements within a health care system, a comparison with other systems is far from obvious (Papanicolas, Kringos, Klazinga, & Smith, 2013).

There is an overall consensus that the need for improved cross-national collaboration in the practice of comparing health care system indicators is a crucial element, not only from a research perspective, but also as a tool to answer and improve important policy issues.

However, the comparability of waiting times on a cross-border level provides several challenging aspects. The following analysis aims at identifying key areas, which prove particularly demanding when comparing cross-country waiting times for elective treatment.

##### **4.1 The lack of standardization:**

###### **4.1.1 Absence of a common definition**

As mentioned in part 3.3.2., there is as of today no standardized definition of hospital waiting time within the OECD. The fact that all of the ten sample OECD-countries in this study have

different interpretations of waiting time, creates a major challenge in terms of cross-country comparisons.

The cause of variations in definition across the OECD sample group, is mainly rooted in national legal frameworks. Due to the fact that domestic Patients' Rights are linked to the country's own definition of waiting time, creating a standardized definition would therefore, in many cases, interfere with national sovereignty. This element is difficult to surpass, and thereby poses a great challenge to the cross-country comparison of waiting time.

Beyond creating challenges on a comparative basis, the lack of a common perception of waiting times, has also had consequences on the issue of cross-border care and the European Directive on the application of patients' rights in cross-border healthcare (EØS, 2014). Due to the fact, that waiting time has been increasingly linked to the question of patient choice (Siciliani et al., 2013), the element of Law in cross-border care has gained increasing momentum.

Although, this Directive has had fairly little effect on the Norwegian issue of waiting time (Å. Ringard et al., 2013), the issue of the Freedom to provide services, which are based on Articles 59 and 60 of the EC Treaty (ECJ, 2001), have highlighted the importance of a more harmonized approach to the question of waiting time, especially within the European region.

The ruling of the European Court of Justice in the case of *Smiths-Peerbooms*, stressed the importance, not only of addressing the element of waiting times in an international context, but furthermore, it highlighted the lack thereof (ECJ, 2001). Even though the ruling has been deemed rather inconsequential with regard to cross-border care and patient mobility (Brouwer, van Exel, Hermans, & Stoop, 2003), it still clearly emphasizes the importance of measuring waiting times.

Interestingly, the variations in how health care systems define waiting times mentioned above, may even pose challenges on a national basis. For instance, the wording of the Norwegian definition of waiting times has given rise to some misconception, because it may be interpreted in different ways. How is one to properly interpret the word *treatment*? Treatment may be regarded as an examination, meaning a consultation with a specialist to determine whether further action is needed and how to potentially proceed. The other option is to regard treatment as actual treatment.

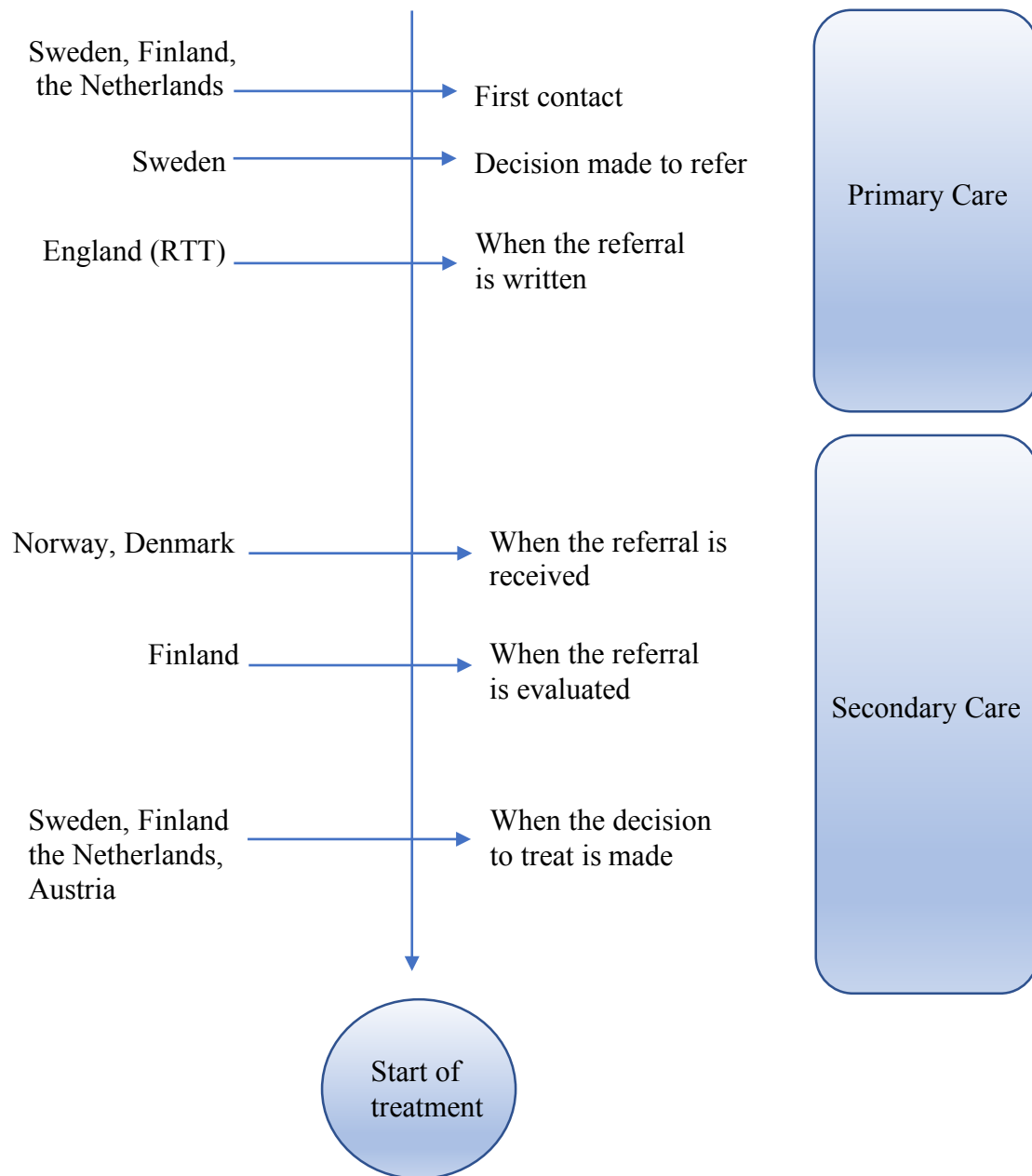
In a recent report, conducted by the Directorate of Health at the request of the Ministry of Health and Social Care, about waiting time registration in the specialist health care system, the issue of how the word *treatment* is interpreted, and the two possibilities it represents, was highlighted. The report suggested that the computer systems designed to register patients be simplified and improved, and that the regulations regarding the distinction between examination and treatment be eliminated, so that there is no uncertainty as to which distinction is meant (Helsedirektoratet, 2017a).

A standardized definition of hospital waiting time within the OECD countries poses a great challenge. The wording of a definition, as illustrated in the section above, is closely linked to national legal frameworks concerning Patients' Rights, and it is therefore difficult to create a definition which is supra-national.

#### **4.2. Conceptual differences of patients' journeys:**

Cross-country comparisons of hospital waiting times are not only challenged by the lack of a common standardized definition. Assessments are made increasingly complex by the fact that OECD countries have different perceptions and frameworks for *when* the waiting time of a patient actually starts. The patient journey consists of encounters with health care professionals, all of which provide countries with different alternatives as to when measurement of waiting time should begin. The framework explained in part 3.3.2., is further illustrated in Figure 2 below.

Figure 2: Illustrates at which points during a patient journey, registration of waiting time is conducted.



Source: (SALAR, 2011); own representation.

For those countries in the sample who monitor waiting times, it is evident from Figure 2, that a comparison of these is made increasingly difficult by the lack of standardization. Additionally, the fact that several countries in the sample do not monitor waiting times, naturally creates a great challenge in terms of cross-country comparisons.

As evident from Figure 2, countries register waiting time at different points in the patient journey. It is interesting to mention England in this context, because they have a system which focuses on the entirety of the patient journey. The so-called referral-to-treatment (RTT) arrangement, measures waiting time as a whole, from the referral is written until the treatment starts.

There are a few drawbacks to the RTT system. This type of measurement provides little detailed information concerning different stages in the patient journey, and thereby proves difficult to use in an international comparison. Furthermore, because it measures the entirety of one patient journey, it makes general comparisons challenging, even on a national level.

However, it could be argued that the main weakness of the RTT system, is in fact also its main strength. As the whole patient journey is measured, and the individual patient is in focus, the model provides a real measurement of the entire patient experience. Due to the fact that there may be a significant time difference from when a patient is added to a waiting list until they get treatment, this method has been deemed to give a good picture of the patient's journey (Siciliani et al., 2013). With regards to quality of care, the RTT-model thereby offers a valid and interesting approach.

Monitoring waiting time provides a measurement of the patient journey, which is an important element in ensuring better quality of care. HOPE, the European Hospital and Healthcare Federation (HOPE), which is the Standing Committee of the Hospitals of the EU, positions that national measuring agencies, which monitor datasets of high quality, are vital in enabling better management of waiting times, as measuring is regarded as a crucial part of improving (HOPE, 2001).

Measuring the *whole* patient journey, was recommended in Sweden as part of their national cancer strategy (Wigzell et al., 2009), where the government saw a need to decrease waiting times and better the coordination of care for cancer-patients. In order to implement so called *care pathways* for cancer-patients, which build on time-bound guidelines, there was a need for improved waiting times measuring and more standardization (Wilkens, Thulesius, Schmidt, & Carlsson, 2016).

One could argue that this example highlights, not only the usefulness of measuring waiting times when wishing to increase quality of treatment, through better coordination within a national health care system, but furthermore, how a standardization of the way waiting times are measured, also comprises an important element in securing better patient care.

These forms of *standardized care pathways*, have the potential to reach beyond cancer-treatment, and also benefit other areas of health care. However, as the example from Sweden above illustrates, this requires knowledge on the state of waiting times. Standardizing frameworks for care pathways may thereby contribute to an improvement in the prospect of better cross-country comparisons.

Furthermore, this element illustrates the much broader role waiting time has, in different aspects of improving health care. This broader role of waiting time is often seen to, not only expand within health care itself, but to also venture beyond that. It is worth noting the political tool the issue of waiting times comprises. The political pressure, which may arise from the use of registering and publishing official waiting times, creates a direct, measurable incentive for increased political attention.

However, one could perhaps argue that the negotiating power of long waiting times, may provide enough pressure for policymakers to allocate more resources (Siciliani, 2014). In this sense, the system might, at times, work against itself.

The broader role of waiting times becomes additionally evident in the concept of *transparency*. Transparency, in terms of spending and quality, is an essential part in improving a health care system. It offers providers a platform of comparing performance through benchmarking, as well as providing patients with information which will help them make informed choices (Collins & Davis, 2006).

National monitoring of waiting times provides an important platform for increased transparency within health care. In Austria, it was the ambition of increased transparency which initiated in the introduction of monitored waiting times (Weilguni, 2012). This was established in a quest to address the issue of parallel markets, arising as a result of privately insured patients receiving care with less waiting, which threatens the concept of equity in health care.



Another equity concern is that the scope of specialist healthcare being provided, may vary greatly across different regions within a country. This has been reported as an equity issue in France, where there is no monitoring of hospital waiting time, but accessibility to health care services still show inequities. French policy-makers have therefore been concerned with ensuring geographical equity in access to care.

#### **4.3. Lack of uniform measurements:**

With regards to challenges of cross-country comparisons, it is additionally not simply a question of defining *if* and *when* to start measuring, but also a question of standardizing *how* to measure.

The importance of comparable evidence and measurements in international comparisons, is highlighted in an article published at Statistics Norway (Statistisk Sentralbyrå). This article comes as a response to the question of whether the OECD average for bed availability, published in a Health at a Glance Report (OECD, 2015), can be compared with that of the national numbers in Norway. Policy recommendations set by the OECD for the Norwegian context had been questioned by political actors, and in the article, Statistics Norway concluded that they, in the future, would use a different method when sending in their data to the OECD for this type of comparison (Hatlebakk, 2016).

Accurate measuring is an essential part in ensuring comparability of cross-country comparisons. It is important to have national frameworks, which enable a standardized collection of waiting time data. Point 4.1.1., referred to a report by the Directorate of Health, which highlighted some of the challenges of registration of waiting times in Norway. The Directorate of Health considered this element of uncertainty as an area, which challenges the quality of reported numbers (Helsedirektoratet, 2017a).

Furthermore, the different perspectives, categories and measurements used in monitoring waiting times, explained in section 3.3.3., are additional elements to explain how the various methods used in different countries may lead to estimations which prove difficult to compare (HOPE, 2001).

Already in 2001, HOPE highlighted the need for the development of standardized methods for reporting and monitoring of hospital waiting times (HOPE, 2001). Furthermore, the OECD states that it considers administrative data to be the best form of accurate measuring (Siciliani et al., 2013). It is highly important that the quality of the numbers registered on a national level are of a similar standard.

The lack of systematic uniformity in the monitoring of waiting times, can be regarded as a major challenge to the whole concept of cross-country comparisons. However, one could also argue that this in fact calls for a much closer collaboration and a need for a standardized framework, which, not only aims at improving the quality of data collection on a national level, but also enables comparisons between different countries to be made more reliable.

#### **4.4. Few relevant studies and best-practice exchanges:**

Health Policy recently devoted an entire issue to exploring cross-national comparisons of health system performances and the potential such comparisons might offer policymakers in their quest to improve matters on a national level. In the issue, titled *Health system performance comparison: New directions in research and policy*, the editorial emphasized the need for comparative health system performance, not only in order to improve accountability by increasing transparency, but also “as a source of cross-country learning” (Papanicolas et al., 2013).

The need for additional studies in the area of cross-country comparisons of waiting times are highlighted further by Siciliani et al., especially with regards to benchmarking on both a national- and international level (Siciliani & Hurst, 2005).

Platforms for the exchange of best practice and the development of potential pilot-projects, which all aim at reducing health care waiting times, and ultimately increasing quality of care, are not an evident part of the current international framework. A review conducted by the Cochrane Library, revealed that the lack of studies and the lack of material available on the subject of interventions to reduce waiting times, could be regarded as an argument for why a platform for best practice exchange is highly relevant (Ballini et al., 2015).

## **5 DISCUSSION: POSSIBLE MEASURES TO FACILITATE CROSS-COUNTRY COMPARISONS OF WAITING TIME**

This part of the thesis aims at suggesting possible future avenues and procedures for improving the international collaboration of comparing hospital waiting times for elective care. Based on the analysis, the discussion aims at suggesting measures which may facilitate the comparability of cross-country waiting time data.

### **5.1 The need for increased standardization:**

#### **5.1.1 National legal considerations complicate a standardized definition of waiting time within the OECD**

As we have seen from the analysis and comparisons above, there are considerable challenges and difficulties in seeking a common definition of waiting times for all the OECD-countries in the sample. As we also have seen, however, the issue of a more precise and harmonized description of monitoring and measuring the patient journey as a whole is very important to measure waiting times. If a standardized registration of the whole patient journey is developed, it may not be necessary to establish a common OECD definition of waiting times

Rather than trying to change national legal frameworks, focus could be on harmonizing the points of measurement, as this may be more feasible. Potential measures for how this might be obtained are presented in part 5.1.3.

With a perspective towards the future, a standardized definition of waiting time may not be far away, at least not within the European Union. The European Commission is currently working on the European Core Health Indicators (ECHI), which were formerly known as European Community Health Indicators. This long-standing collaboration between EU Member States and the European Commission, includes three projects under the EU Health Programmes from 1998 to 2008, as well as the Joint Action on European Community Health Indicators Monitoring (ECHIM) from 2008 to 2013.

The project aims at defining and measuring 88 different indicators, one of which is waiting times. An overview of the complete table of the ECHI can be found in Annex 1. So far, 66 of the indicators have been defined and standardized. The work on the topic of waiting times is yet to be completed (EC, 2017).

### 5.1.2 The importance of measuring waiting time

Furthermore, is the importance of actually measure waiting times. There are still many countries who have not introduced a system for the registration of waiting times. Some nations have focused on the number of patients on waiting lists, rather than the actual waiting times. This element is necessary in order to further develop cross-national comparisons and to increase the focus on the patient's journey and the quality of care.

Highlighting the importance and value of national measuring agencies, might benefit the quality of the data received, which will furthermore improve the quality of the cross-national comparisons. This is important because, according to the OECD, the best form of accurate measurement is administrative data (Siciliani et al., 2013).

Measuring and monitoring waiting times, allows for the development of an increased understanding of how demand and supply of particular health care services may be effected (HOPE, 2001). This detailed information system further enables responses to policy-changes, financial incentives, etc, to be illustrated through measurements, which in turn can be compared with previous periods or other regions, as well as other countries. This type of benchmarking is a highly important aspect of why waiting times should be monitored.

### 5.1.3 Creating comparable data and standardizing the patient journey

Even though there is no standardized perception of the measurement of waiting times within the OECD, there is however the emergence of some common perceptions. The concept of measuring the length of time, rather than the length of lists, has become somewhat of a best practice. Furthermore, the way in which waiting times are registered in England, which considers the entire patient journey from the initial referral to the actual treatment (RTT) is

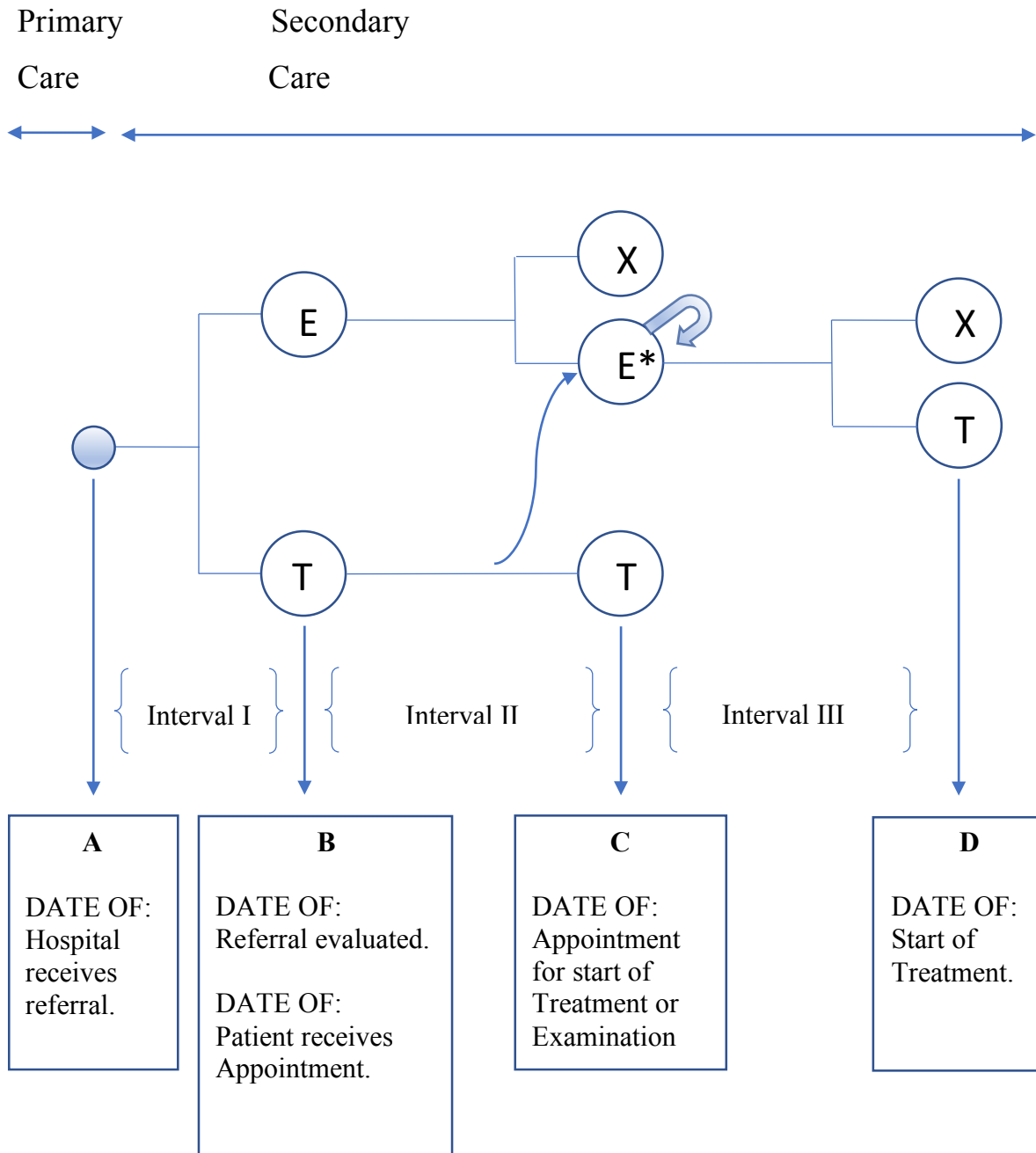
gaining increasing momentum as an effective and good measurement of elective care (Siciliani et al., 2013).

Although defining waiting time and determining when to start measuring it are specific to different national systems, there are still areas which may be possible to standardize to a certain degree, and which will improve the comparability of different nations.

In order to approach a more standardized method, HOPE suggested that there be certain areas of a patient's journey which should be identified and measured. This included: (1) the time it took from a hospital received a referral to the time of the examination, (2) the time it took from the first examination to the last, in the case of several appointments, and (3) the time used from the last examination to the beginning of the treatment (HOPE, 2001).

Based on these recommendations, and the framework presented in part 3, the following model for a standardized waiting time measurement system is suggested: see Figure 3.

Figure 3: Model suggesting potential organization of waiting time for elective care.



Source: own representation.

The starting point is that a referral is sent to the place of treatment either 1) for an Examination (E) or 2) for Treatment (T). These referrals are evaluated by the hospital, and patients receive appointments either 1) for an Examination or 2) for a Treatment. Should the evaluation consider

the referral requesting Treatment to need further examinations, the patient is moved to E\*, as illustrated by the slim arrow.

Furthermore, should a patient, referred for an examination, need several examinations, they are moved back to point E\* for each new examination within the same patient journey, illustrated by the thick, looped arrow. This is in accordance with the suggestions by HOPE.

Additionally, the X in Figure 3, means that the patient is no longer in the hospital system, due to the following possibilities:

- Treatment/Examination was not needed, based on clinical judgement.
- Treatment/Examination was received at another hospital.
- Based on the patient's own wish.
- Patient has moved.
- Patient has died.
- Administrative error.
- Patient did not meet up for appointment/admission.

As a supplementary point, it could furthermore be an option to add a third form of referral. In addition to referrals to Treatment and Examination, there could also be a category titled Inquiry. This category would refer to all patients, where the GP is unsure if a full referral is necessary, or if they are simply in need of a second opinion. This point could potentially further simplify the referral process, for both sender and receiver (Thorsen, Hartveit, Kristoffersen, & Holman, 2017).

Interval I is measured as the time from which a hospital receives a referral (**A**) until the referral is evaluated by the hospital (**B**). Interval II consists of the time from which the patient *receives* an appointment for examination or treatment (**B**) until the start of the examination or treatment (**C**). Interval III consists of those patients who undergo examination and need treatment, which then measures the time from examination start (**C**) until the start of treatment (**D**). The overall waiting time of a patient journey would be registered as either Interval I + Interval II or as Interval I + Interval II + Interval III. Table 5 gives an overview of how the model (figure 3) would correspond to national frameworks for monitoring elective care waiting times.

Table 5: Shows which Interval(s) correspond to the national definitions of waiting time for elective care:

<b>Country:</b>	<b>Which Interval(s) corresponds to national definitions of waiting time (including the national waiting time maximum):</b>
<b>Austria</b>	There are currently no legal rules or system for the measurement of waiting times in Austria. There is no law concerning maximum waiting time, only suggestions.  (Maikisch, 2017)
<b>Denmark</b>	Interval I + Interval II = waiting time (maximum 30 days). Interval I + Interval II + Interval III = waiting time (maximum 30 days).  (SUM, 2016)
<b>England</b>	Interval I + Interval II + Interval III = waiting time (maximum 18 weeks).  (NHS, 2016)
<b>Finland</b>	Interval I: maximum 3 weeks. Interval II = waiting time (maximum 3 months). Interval III = waiting time (maximum 6 months).  (STM, n.d.)
<b>Norway</b>	Interval I: maximum 10 working days. Interval II = waiting time. Interval II + Interval III = waiting time.  Norway is the only one out of the Nordic countries to have individual waiting time guarantees for each patient, rather than a standardized system of maximum waiting time for all specialist care (Å. Ringard et al., 2013).
<b>Sweden</b>	Interval I + Interval II = waiting time (maximum 90 days).



	Interval II + Interval III = waiting time (maximum 90 days). (SKL, 2017)
<b>The Netherlands</b>	Interval I + Interval II, for examination = waiting time (maximum 4 weeks). Interval I + Interval II, for treatment = waiting time (maximum 7 weeks). Interval I + Interval III = waiting time (maximum 7 weeks). (NZA, 2015; SALAR, 2011; Siciliani et al., 2013).

Source: own representation.

Adding to the concept of the model presented in Figure 3, and based on a norm composed by the Standing Committee of the Hospitals of the E.U., which consists of a set of minimum data requirement for the registration of waiting times for elective treatment, on hospital level, the following standard is proposed:

Minimum set of required data for registration of waiting time for elective treatment:

<p><b>I. GENERAL:</b></p> <p><b>a. <u>Identification of patient:</u></b></p> <ul style="list-style-type: none"> <li>○ Number unique to the patient</li> <li>○ Date of birth</li> <li>○ Gender</li> <li>○ Patient's GP (if relevant)</li> </ul> <p><b>II. DATE OF REFERRAL</b></p> <p><b>a. When the place of treatment <i>receives referral</i></b></p> <p><b>III. TYPE OF REFERRAL</b></p> <p><b>a. <u>Examination / Treatment</u></b></p> <p><b>IV. <u>RECEIVED REFERRAL:</u></b></p> <p><b>a. <u>Referred by:</u></b></p> <ul style="list-style-type: none"> <li>○ Referral Unit (GP/Specialist)</li> </ul>
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**b. Referred to:**

- Receiving Unit (Specialization)

**c. Reason for referral:**

- Diagnosis / Intended procedure (Procedure)

**d. Priority of the patient**

**V. EVALUATED REFERRAL:**

**a. Date of:**

- Finished evaluation of referral, i.e. when the patient receives evaluation of referral.

**b. Date of:**

- First examination / Start of treatment

**VI. AFTER FIRST EXAMINATION (in the case of one appointment):**

**a. No longer on the waiting list, because:**

- Examination was received at the hospital:
- Examination was received at another hospital.
- Examination was not needed, based on clinical judgement.
- Based on the patient's own wish.
- Patient has moved.
- Patient has died.
- Administrative error.
- Patient did not meet up for admission.

**VII. AFTER LAST EXAMINATION (in the case of several appointments):**

**a. Date of:**

- Last examination.

**b. No longer on the waiting list, because:**

- Examination was received at the hospital:
- Examination was received at another hospital.
- Examination was not needed, based on clinical judgement.
- Based on the patient's own wish.
- Patient has moved.

- Patient has died.
- Administrative error.
- Patient did not meet up for admission.

### **VIII. AFTER TREATMENT**

#### **a. Date of:**

- Last treatment

#### **b. No longer on the waiting list, because:**

- Treatment was received at the hospital:
  1. Date of leaving the waiting list.
  2. Diagnosis.
  3. Treatment.
- Treatment was received at another hospital.
- Treatment was not needed, based on clinical judgement.
- Based on the patient's own wish.
- Patient has moved.
- Patient has died.
- Administrative error.
- Patient did not meet up for admission.

Source: based on (HOPE, 2001); own representation.

This minimum set of data requirements suggests under *General*, that a number which is unique to the patient is provided. In Norway, this is an established practice, with the use of social security numbers, consisting of an 11-digit personal identity number, called *personnummer* (Skatteetaten, n.d.). This element may prove challenging for those countries in the sample, which do not have this practice.

With regards to *Perspective*, explained in part 3.3.3., all the three perspectives are applicable to the model in figure 3. It could be argued that the uncertain nature of the *Predictive Perspective*, might be experienced as misleading. Both the *Retrospective*- and the *Present Perspective*, demonstrate actual numbers. Depending on how often waiting times are reported, the two perspectives are closely linked, and a distinction may not be highly necessary. Siciliani et al. argue that the advantage of using a *Present Perspective*, is a more up-to-date insight, which may prove useful in terms of seeing the effect current secondary health care providers are

having, while the *Retrospective Perspective* includes the whole length of the patient journey (Siciliani et al., 2013).

However, in order to have harmonization on a cross-country level, it may be argued that the *Retrospective Perspective* provides the most realistic picture of the state of waiting times. This is an important element, when considering patient information and quality of care.

In terms of *Categories*, explained in part 3.3.3., all referrals will be regarded as *Elective*. However, additional details are necessary in order to facilitate international comparisons. Whether treatment and examinations should be categorized based on *Procedure* or *Specialty*. Point IV in the proposed *minimum set of required data for registration of waiting time for elective treatment*, suggests that both areas be registered. The more detailed the *Category*, the more potential there is for more comprehensive international comparisons, which in turn may lead to more specific benchmarking and increased knowledge on different areas of elective, secondary health care.

An argument for registration of both *Procedure* and *Specialty*, is the use it has in benchmarking. *Procedures* additionally has the ability to uncover differences within a *Specialty*, as demonstrated by Siciliani et al. Both hip- and knee- replacements are *Procedures* within the *Specialty* of Orthopedics, however they display great variations in terms of waiting times and number of procedures, on both a national- and international level (Siciliani et al., 2013). The OECD has managed to compare waiting times for hip replacements in its most recent *Health at a Glance*-report, which can be regarded as a call for additional development of procedural registration of waiting times for future comparisons (OECD/EU, 2016).

Due to the more easily comparable nature of *Procedure*, it may furthermore provide data for the comparison of additional procedures within a variety of specializations, thereby offering the potential to build up European data bases, allowing for developments to be monitored over longer periods of time. Such data bases may be led by organizations, such as the OECD or WHO, inviting closer collaborations, also on an institutional level.

With regards to *Measurements*, from part 3.3.3., it is proposed that waiting times are registered as *days*, which can then be converted to weeks or months, depending on national

preferences. The different threshold values may then be extracted to match national requirements, without interfering with the potential for cross-country comparisons.

However, due to those patients with very long waiting times, highlighted by the commonly highly skewed distribution curve, the median often tends to be systematically higher than the mean. In many cases, this may lead to average waiting times not being properly illustrated. It may be argued that so-called outliers are better dealt with using the *median*, and that therefore both the mean and median be measured (Siciliani et al., 2013).

#### 5.1.4. The need for more studies, as well as exchanges in international fora

The findings from the Cochrane Library review, mentioned in part 4.4., highlights the need for more studies. Furthermore, this could be regarded as an argument for why the exchange of best practice is highly relevant. In addition, the ability it gives governments to *tailor* this exchange to fit their particular regional needs, allows for a flexibility with which national considerations can be made.

Although best practices are being exchanged to some extent in the relevant European and international health fora, there is no developed practice that allows for a systematic use of best practices to improve comparisons and learn from one another, in order eventually to reduce waiting times for the benefit of the patient.

The Netherlands have successfully reduced waiting times by introducing a combination of activity-based funding, which is often regarded as a crucial component in creating choice and stimulating competitive markets, and raising the ceiling on hospital spending. Reducing the constraint on spending, along with rewarding higher supply-side activity, are generally associated with the reduction of waiting times (Siciliani et al., 2013).

However, as many nations are currently still facing the repercussions of the financial crisis, along with those who are already challenged by high health care spending, this form of policy may not be easily implemented, or even feasible. Therefore, looking at other innovative ways of reducing waiting times may prove more interesting.

Such innovative ways may also be found outside the OECD. An example of how the exchange of innovative best practice experiences is found in the Former Yugoslavian Republic of Macedonia (FYROM). In 2010, the country addressed the issue of waiting time by introducing an electronic booking system for specialist health care appointments, called *MojTermin*, which can be translated to *My Appointment* or *My Time*. This e-platform allows for GPs to see the schedule of any specialist health care provider and directly make an appointment, with the patient still in the room. The system, which was developed with the technical support of the World Health Organization (WHO, 2015), is in accordance with established European Union strategies on development and implementation on eHealth infrastructures (Velinov et al., 2015).

The introduction of *MojTermin*, which was an important step in improving FYROM's health information system (HIS), has resulted in decreasing waiting times to become virtually non-existent. The immense drop becomes particularly evident in the example of waiting times for radiology scans decreasing from 15 months to less than 1 week (WHO, 2015). According to the Health Consumer Powerhouse, the Macedonian *MojTermin* system is “well worth a study trip” (Björnberg, 2016).

A study, conducted in 2011, regarding the affect waiting times has on the patients' choices and mobility shows an interesting element, where even if the choice of hospital is done by someone other than the patients themselves, most likely by the referring physician, the length of waiting time is reduced. The study stated that this could be explained by the knowledge physicians had with regards to capacity at different hospitals (Å. Ringard & Hagen, 2011).

This aspect, that referring physicians need to possess a certain kind of knowledge concerning the internal hospital waiting lists, challenges the concept of equity. With a system similar to that of *MojTermin*, this process could potentially make this kind of knowledge accessible for all referring physicians, and thereby further benefit the patients.

In the most recent WHO-report on eHealth in the European region, the publication referred to the FYROM system *MojTermin* as a case example of “effective policy implementation using eHealth to improve health care delivery and integrate health information nationally” (WHO, 2016).

Monitoring waiting times should have an overall goal of increasing efficiency to benefit patients and society on a whole, ultimately reducing waiting times and improving the quality of health care. Supplying further studies, along with an increased awareness of the unmet potential found in the exchange of best practice, may therefore lead to the issue of waiting times becoming a more frequent item on the agenda of the OECD Health Committee, and subsequently perhaps a permanent item for regular exchange and update based on best practices. This will additionally facilitate a more systematic review of this issue. Informal consultations may be required in order to establish possible ways to facilitate such an approach.

## 6 CONCLUSION

With the aftermath of the financial crisis still heavily affecting many health care systems across the OECD, along with regulations from the European Union allowing cross-country treatment in the case of *undue delay* in waiting times, there is a keen interest to explore a more systematic approach to the concept of waiting times, in particular with regard to definitions and measurements. This is seen to be an important tool in evaluating performance within different health care systems (Siciliani et al., 2013).

Based on the above analysis, the following key challenges have been identified:

- The lack of standardization:
  - The absence of a common definition of hospital waiting time.
  - The conceptual differences of the patient journey.
  - The lack of uniform measurements
- The challenge of ensuring quality of data.
- Few relevant studies and best practice exchange.

Cross-country comparisons of waiting times provide highly useful benchmarking, which gives an important insight into the issue of access to care, on both a national- and international level. The need for a strengthened international collaboration to facilitate cross-country comparisons of health care availability is consequently highly desirable. Therefore, the measuring and monitoring of waiting times on a systematic level is recommendable.

However, given national sovereignty and systematic differences in how waiting times are

defined, the complicated nature of creating a standardized definition of waiting time within the OECD, suggests that the focus should rather be on creating comparable data and standardizing the patient journey. Figure 3, illustrated in part 5.1.3, along with a suggested minimum set of required data for registration, present a possible proposition as to how such a standardized organization of waiting time for elective secondary care may look.

Furthermore, the thesis highlights the need for more studies to be made, as well as exchanges of best-practice and increased attention in international fora. Cross-country comparison of waiting time for elective secondary health care treatment does not only provide a source of patient empowerment. In addition, it provides an important platform for international comparisons and cross-country learning, which may prove to be highly resourceful in terms of tackling the overarching issue of excessive waiting times and inequities in access to health care.



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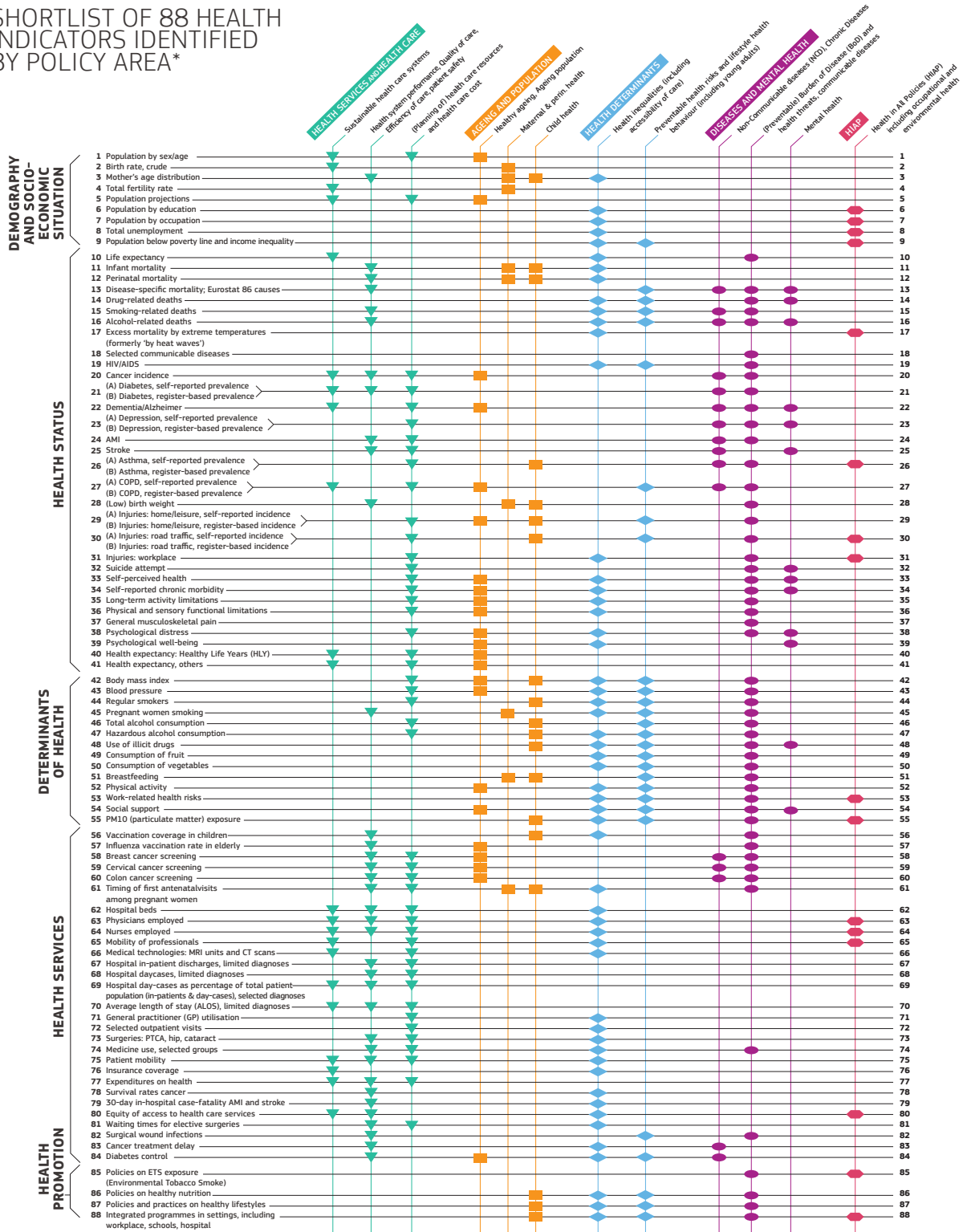
ANNEX:

Annex 1. (EC, n.d.)



# THE EUROPEAN CORE HEALTH INDICATORS ECHI

## SHORTLIST OF 88 HEALTH INDICATORS IDENTIFIED BY POLICY AREA\*



\*The Joint Action ECHM suggested 17 relevant policy areas for the ECHI indicators shortlist. DG SANCO has reviewed the allocation to policy areas and in order to make the ECHI shortlist more user friendly has merged some policy areas and set the ECHI shortlist up in a table with 12 policy areas. Both tables have been presented to the Expert Group on Health Information (EGHI). The main aim of the lists is to support policy makers in their choice of indicators for measuring and/or setting of policy but is not intended to be prescriptive for users.