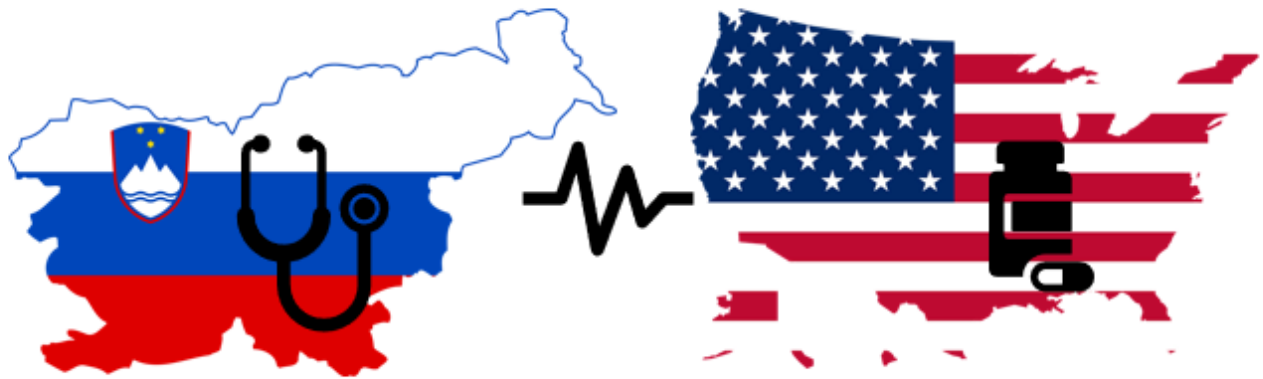


Comparative analysis of selected health care systems



Collaborative Online International Learning
(COIL)
A Health Economics Project
Fall 2021

University of Ljubljana

FACULTY OF
ECONOMICS



SUNY OLD WESTBURY

Comparative analysis of selected health care systems

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Collaborative Online International Learning (COIL) project in Health Economics

Veronika Dolar and Petra Došenović Bonča

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Introduction

The comparative analysis of selected health care systems was developed as part of a COIL course in Health Economics taught in two countries. This course took students on an intellectual journey that is rich in cross-cultural experiences and brings the students to a deeper, more enriched understanding of the course content. This class is a link between two Health Economics courses. One class is taught by Professor Veronika Dolar at SUNY Old Westbury in New York while the other is taught to an international class of students from Slovenia and Erasmus exchange students by Professor Petra Došenović Bonča at the School of Economics and Business, University of Ljubljana in Slovenia.

Four generations of students have been part of this COIL collaboration in the last four years. In the 2021/22 academic year, students from 14 different countries participated (Canada, Germany, Ireland, Italy, Montenegro, North Macedonia, Russia, Serbia, Slovenia, Spain, The Netherlands, Turkey, Ukraine and USA).

Students from these 14 countries in both classes have shared a section of the class material on the topic of International Comparisons of Health Care Systems and Health Expenditure that is co-taught by the two professors.

As part of COIL activities students of both courses shared their personal experience and also discussed the results of their assignments.

The goals of this course were to:

- Demonstrate an expanded understanding of healthcare systems in a global perspective and the main differences between the USA healthcare system and other systems around the world.
- Explore global differences in health care spending and health and understand the relationship between spending and a nation's health.
- Examine social, economic, and political determinants of health care systems and the evolution of various systems around the world.

Students worked in teams, and they have co-authored 11 reports on the comparative analysis of selected health care systems under the supervision of both professors that have edited the presented material.

What is COIL?

What is COIL? Through the use of Internet-based tools and innovative online pedagogies, COIL fosters meaningful exchanges between university-level teachers and students with peers in geographically distant locations and from different linguacultural backgrounds.

Collaborative Online International Learning (COIL) connects students and professors in different countries for collaborative projects and discussions as part of their coursework. COIL Collaborations between students and professors provide meaningful, significant opportunities for global experiences built into programs of study. COIL enhances intercultural student interaction through proven approaches to meaningful online engagement, while providing universities a cost-effective way to ensure that their students are globally engaged.

Surveys of employers have found that they highly value cross-cultural competence. For example, 67% of employers desire candidates with intercultural knowledge, and a perspective on global issues as related to human cultures in the physical and natural world. In addition, 57% desire candidates with knowledge of the United States' role in the world, and knowledge of cultural diversity both within and outside of the U.S. (AACU, 2010).

For the Health Economics course cotaught by Professor Veronika Dolar at SUNY Old Westbury in New York and Professor Petra Došenović Bonča at the School of Economics and Business, University of Ljubljana in Slovenia the COIL activities began with an online video introducing the professors to both classes with students from 14 different countries in 2021/22 academic year. Students were put into small groups and collaboratively worked on several assignments together. Students were provided additional classroom sessions covering the internet tools used to communicate with their peers in Slovenia and work collaboratively. All the assignments were split in two parts. First, the students gathered data individually and wrote a summary - several video instructions have been created by the two professors that helped them with this part. Second, they jointly created a video of their conversation with their overseas partners in which they analyzed and compared their data and results.

The COIL version of Health economics has now been offered four times. The course is extremely time consuming and quite stressful but, in the end, extremely rewarding. There are several logistical and technical issues involved in teaching this type of a course. For example, the syllabus and the material need to be synchronized between the two professors and the set of assignments must be designed so that students at both institutions are able to complete them. One source of tension had to do with differences in academic preparedness. The University of Ljubljana is a highly selective institution, and their students are all economics majors while the Old Westbury students had much less economics training - they are typically majoring in Politics, Economics and Law or Public Health.

Applying open pedagogy to our health economics class

It should be made explicit that this publication itself is an example of an Open Educational Resource (OER). Just look at the license attached to it ([CC BY-NC-SA](#)). As defined by UNESCO *“Open Educational Resources (OER) are teaching, learning and research materials in any medium - digital or otherwise - that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.”*

More importantly, the fundamental guiding principle behind the creation of this publication, as well as for developing the COIL assignments is based on open pedagogy.

Open pedagogy is the practice of engaging with students as creators of information rather than simply consumers of it. It's a form of experiential learning in which students demonstrate understanding through the act of creation. The products of open pedagogy are student created and openly licensed so that they may live outside of the classroom in a way that has an impact on the greater community.

Open pedagogy is a high-impact practice that empowers students by providing them an opportunity to engage in information creation through the use of renewable assignments. As creators of information, students in these courses gain a greater understanding of the rights and responsibilities associated with information ownership so they may make informed decisions about their own intellectual property. Practitioners of open pedagogy embrace collaboration, student agency, and authentic audiences while recognizing the differences in privilege and progress that impact how students balance the benefits of sharing and a need for privacy. This open educational practice challenges traditional teaching roles and has the power to transform the educational experience for both teachers and students.

“Open Pedagogy,” is a set of praxis where theories about learning, teaching, technology, and social justice enter into a conversation with each other and inform the development of educational practices and structures. David Wiley, was one of the first OER-focused scholars who articulated how the use of OERs could transform pedagogy. He wrote in 2013 about the tragedy of “disposable assignments” that “actually suck value out of the world,” and he postulated not only that OERs offer a free alternative to high-priced commercial textbooks, but also that the open license would allow students (and teaching faculty) to contribute to the knowledge commons, not just consume from it, in meaningful and lasting ways. Recently, Wiley has revised his language to focus on “OER-Enabled Pedagogy,” with an explicit commitment to foregrounding the 5R permissions and the ways that they transform teaching and learning.

Introduction to Open Pedagogy – Webinar

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021?p=201>

This webinar features a lively conversation between Robin DeRosa and Rajiv Jhangiani, two prominent advocates for OER and Open Pedagogy.

This recording from February 2019 was the kick-off of the Open Pedagogy Webinar series, co-hosted by the SUNY Center for Professional Development and the Open Education Consortium. These series include also a presentation by Professor Veronika Dolar: OER Enabled Constructionist Pedagogy in a Social Science Course – March 19, 2019.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021?p=201>

Open Pedagogy and Social Justice

Open Educational Resources (OER) are licensed with open licenses, which reflects not just a commitment to access in terms of the cost of knowledge, but also access in terms of the creation of knowledge. Embedded in the social justice commitment to making college affordable for all students is a related belief that knowledge should not be an elite domain. Knowledge consumption and knowledge creation are not separate but parallel processes, as knowledge is co-constructed, contextualized, cumulative, iterative, and recursive. Just as the open license allows for the remixing and revision of OER, it also opens the gate into a particular way of thinking about learning.

Attribution: Robin DeRosa, Open Pedagogy and Social Justice

Resources:

<https://libguides.uta.edu/openped>

Open Pedagogy Notebook

Embracing Open Pedagogy

Students reflections and comments about this learning experience

In this course, the instructions about how to communicate and how to work collaboratively with students abroad had to be created. Due to a time difference between the two countries, the collaborative work had to be done outside the classroom and students from the USA had to establish their own communications with the students in Slovenia - a task that proved to be quite challenging for most. This is also revealed by student evaluations.

“Too much work dealing with people in other countries because of time difference.” (Fall, 2019)

“Getting in contact with partners was a hassle because the other at time was not reliable, and it caused a lot of confusion and anguish.” (Fall, 2019)

“Interaction with the US students was overall quite challenging” (Fall, 2019).

This is an extremely labor-intensive class. Given the different semester schedules much of the work was front loaded during the first month and the deadlines could not easily be altered. The problem is reflected in one student’s comment:

“Although the COIL section is a strong feature of the course, it was weak in many ways. The deadlines were not realistic, and it was very difficult coinciding with Slovenia in terms of the time zone difference.” (Fall, 2019)

Despite these challenges, student impressions of the course and their take on the COIL assignments were positive overall.

“This class did some work with another Health Economics class in Slovenia, which was interesting. That was a completely new experience, and I will remember it.” (Fall, 2018)

“The biggest strength of this course overall is that it was a COIL course.” (Fall, 2019)

The strength of the class was “Interacting with students in Europe.” (Fall, 2019)

“I enjoyed the interactive side of the course, working with the US students and video conferences. It was a new approach to me and made the course more interesting.” (Fall, 2019)

“Interesting content and I liked the cooperation with a school from New York where we got to talk to one another about health systems in our countries.” (Fall, 2021)

“...After every class, I step out of the room more knowledgeable about myself as a citizen in my community. This class has inspired my future career aspirations to study health policy .” (Fall, 2021)

Since teaching this class is so mentally and physically draining for both students and professors, both teachers have seriously considered dropping the COIL component several times. However, the reflections of students about their experience with COIL assignments motivated further development and improvement.

“...being able to speak with my partners opened my eyes to the world. My first partner was from Poland, and the other I got to speak to was from Italy and so I was able to get their insight as to how daily life is for them, and their opinions on a lot of the issues that we discuss here in the United States. More importantly, I asked them what they thought about the United States, President Trump, and how our healthcare system works. The responses I received left me shellshocked as their perspectives really spoke to me. My opinion is astronomically different living in this country than someone who does not and is on the other side of the world. We also discussed how healthcare is addressed in both of our respective countries, and how our governments function. I think this experience overall helped me grow as an individual. Being able to communicate with someone overseas really develops your personal character and makes you realize that the world is not JUST the United States. There’s so much more out there, so much culture to be learned, and this experience was a foot in the door to do all those things.” (Fall, 2020)

“Best course I’ve ever had. Very systematically divided group work made it motivating as we had enough time to fully explore the interesting topics without stress and rush” (Fall, 2021).

The comments from the latest academic year reveal that all improvements to the course that have been implemented based on previous experiences have worked well. One such improvement is a team contract and special time devoted so that students get to know one another and align their expectations. This is a good example of how student feedback can really help teacher to modify their courses.

Both professors know that there is still quite a bit of work that needs to be done to get the class running more smoothly but they both believe all the challenges also benefit the students as they are part of working in an international environment in multicultural teams.

About Professor Veronika Dolar

My name is Veronika Dolar and I am currently an assistant professor of economics at the Department of Politics, Economics and Law at SUNY Old Westbury where I teach Introductory Micro- and Macroeconomics, Health Economics, Labor Economics, and Food and Wine Economics

I was born in Slovenia (at that time still under Yugoslavia), obtained my International Baccalaureate (IB diploma) in Italy at the United World College of the Adriatic and graduated summa cum laude from the University of Western Ontario in Canada and received my MA and Ph.D. at the University of Minnesota. I also worked at the Bank of Canada and taught at numerous universities and colleges including Case Western Reserve University in Cleveland, OH and St. Olaf College in Minnesota.

My current research interests include health economics focusing on eating decision, nutrition and obesity, labor economics, as well as economic education.

I am a believer in constructionist pedagogy and believe that we learn best when we are actively engaged in constructing something that has personal meaning to us.



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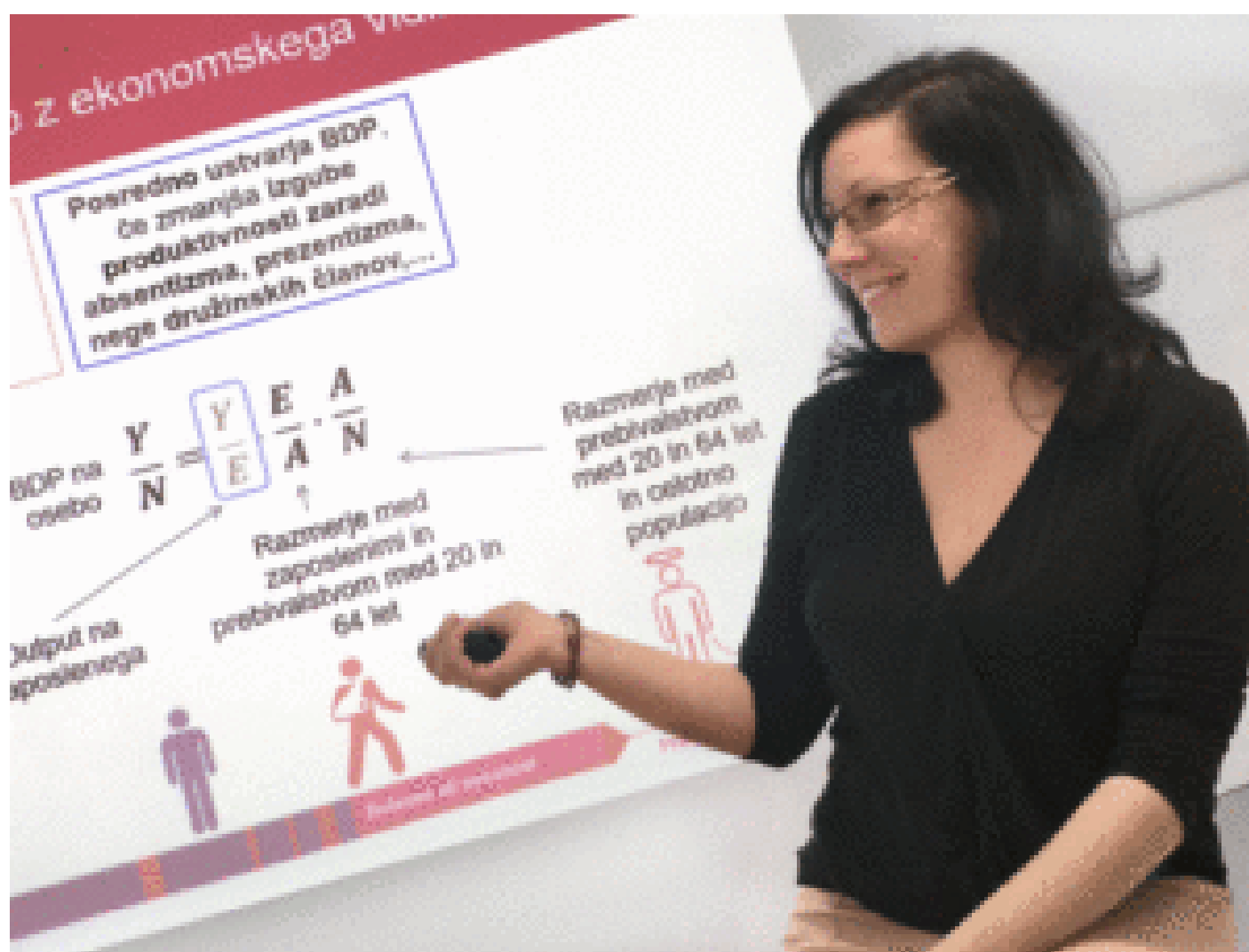
Here are few links to the sites that host more info about me:

- SUNY Old Westbury Faculty Page: <https://www.oldwestbury.edu/people/dolarv>
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About Professor Petra Došenović Bonča

My name is Petra Došenović Bonča and I am an associate professor at the School of Economics and Business, University of Ljubljana, Slovenia. My research fields are health economics and public economics. My research focuses on efficiency and performance of health care providers and on innovations as factors of efficiency and performance. I am currently studying also direct and particularly indirect cost of diabetes, rheumatoid arthritis, ankylosing spondylitis and migraine.

At my school I have participated in the development of the first postgraduate degree programme in Health Economics and Management offered in Slovenia. I am currently the head of this programme and I teach several courses like Principles of health economics, Health systems and policies, Economic evaluation in health care and Health insurance. These are all at the postgraduate level. At the undergraduate level I teach Health economics 1.



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REPORTS

Belgium, France, and the United States

Authors: Çiçek Berk (Turkey), Kocić Majda (Serbia), Bayo-Sebiotimo Damilola (U.S.)

Basic Data Comparison

Table 1: Basic Data Comparison

| Indicator | Year | US | Belgium | France |
|---|-----------|----------|----------|-----------|
| 1. Health Expenditure and Financing | | | | |
| GDP per capita, PPPs | 2020 | \$62,941 | \$51,930 | \$45,714 |
| Health care expenditure as % of GDP | 2019 | 16.8 | 10.7 | 11.1 |
| Per capita health care expenditure in PPPs | 2019 | \$10,949 | \$5,458 | \$5,274.3 |
| GINI coefficient (disposable income, post taxes and transfers) | 2017 | 0.39 | 0.264 | 0.292 |
| 2. Health Care Resources and Utilization | | | | |
| # of physicians per 1000 population | 2019 | 2.64 | 3.16 | 3.17 |
| # of hospitals per million population | 2018 | 18.81 | 15.23 | 45.33 |
| # of hospital beds per 1000 population | 2018 | 2.83 | 5.62 | 5.9 |
| # of days in hospital (average length of stay) | 2018 | 6.1 | 7.2 | 8.8 |
| # of visits to physician (number of consultations per capita for doctors only - exclude dentists) | 2018 | 4 (2011) | 7.2 | 5.9 |
| 3. Health Status | | | | |
| Life Expectancy | 2020 | 77.3 | 80.9 | 82.3 |
| Infant Mortality Rate | 2018 | 5.7 | 3.8 | 3.8 |
| Maternal Mortality Rate | different | 14.4 | 4.1 | 7.6 |
| Body weight (obese population, measured, % of total population) | different | 42.8 | 21.2 | 17 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2018 | 10.3 | 15.4 | 25.4 |
| Alcohol consumption (litres per capita (15+)) | 2019 | 8.9 | 9.2 | 11.4 |

Note 1. For the USA, the latest available data for # of visits to physician are from 2011 and amount to 4.

Note 2 For maternal mortality rate, we used 2018 for the USA, 2016 for Belgium and 2015 for France.

Note 3. For measured obesity, we used 2019 for the USA, 2018 for Belgium and 2015 for France.

Source: <https://stats.oecd.org/>

A notable difference between the three countries concerns the number of hospitals per million people. According to the 2018 data, France is the dominant country with 45.3 hospitals per million population, which puts it far ahead of the USA and Belgium whose respective numbers are 18.8 and 15.2 (Table 1). However, there are not that many more hospital beds per 1000 population in France compared to Belgium; the difference is only 0.3 percentage points (France - 5.9 beds per 1000 people and Belgium - 5.6 beds per 1000 people) (Table 1). Among the three countries, France has the highest share of for-profit privately owned hospitals - 32.9% (OECD.Stat, 2021). That share is higher than in most

developed countries and they tend to specialize in areas with great profit opportunities (European Observatory, 2021). On the contrary, in Belgium there are no private for-profit hospitals. (OECD.Stat, 2021). In December 2013, the French Government signed an accord with the European Investment Bank, which agreed to finance public and private hospital construction and renovation projects under the Hospital of the Future Program, amounting to €1.5 billion over three years (European Observatory, 2021a). Consequently, the number of hospitals surged during 2013 - 535 new ones emerged (OECD, 2020). It is important to mention that in Belgium, the number of hospitals decreased from 521 in 1980 to 174 in 2018 (December 2018 data), mainly as a result of mergers rather than an actual decrease in the number of sites (European Observatory, 2021a).

In the United States, a similar pattern can be observed. The consolidations and closings of hospitals since the 1980s that contributed to this decline are related to changes in hospital payment and the rise of managed care. The switch from retrospective to prospective payment by Medicare and other payers, reductions in payment rates and managed care practices incentivized reductions in patient lengths of stay, movement of patients to outpatient settings, increased competition among hospitals, and increased hospital financial constraints. Consolidation and closing of many hospitals can be attributed to these factors. (European Observatory, 2021a).

Therefore, the facts that in 2018 the United States had the smallest number of hospital beds per 1000 people (2.8) as well as the lowest average length of stay (6.1 days) come as no surprise. The data for the number of beds in France and Belgium are 5.9 and 5.6, respectively which puts the USA ahead for 3.1 and 2.8 percentage points (Table 1). However, the trend of reducing the number of beds and length of stay is not unique for the USA, it is a general tendency for European countries in the last 40 years. To illustrate, the total number of hospital beds in France has been steadily declining since 1980 (The World Bank, 2021) Between 2003 and 2011, the number of full-time hospital beds fell from 468 000 to 414 000. Average length of stay in acute hospitals also has diminished, being lower than in comparable European countries, with an average length of stay of five days in 2011 (European Observatory, 2021a).

When it comes to number of visits to physician, Belgium is a leader with 7.2 per year. France is 1.3 percentage points behind, and the USA exhibit the lowest rate, which in 2011 was only 4 visits per capita (Table 1). Belgian GPs are mainly compensated according to the fee-for-service model which can incentivize wasteful overuse of resources and time and supplier-induced demand which means that there is risk of unnecessary services (European Observatory, 2021b). One of the most significant hurdles to primary care in the United States is patient inability to pay for care. Nearly 14% of persons aged 18-64 are uninsured, and 45% are underinsured, which puts them at risk of substantial out-of-pocket payments (Collins at al., 2019). Additionally, even those who have private insurance often face high deductibles and out-of-pocket payments that are hard to afford. Lack of means of transportation, large distance from providers, lack of education, language barriers and illiteracy can also act as obstacles to outpatient physician services (Lazar & Davenport, 2018). On the other hand, the USA faces a primary care physician shortage and therefore they face heavy workloads which can cause long waiting times. In addition, the system is burdened with complicated administrative procedures. Besides,

inadequate geographical distribution of primary care providers contributes to shortages in rural and disadvantaged urban areas which only amplifies the problem of accessibility for patients who struggle with mobility (European Observatory, 2021b).

Analogously with the trend in the whole European union, infant mortality in Belgium and France has been declining and amounted to 3.8 per 1000 live births for both countries (Table 1). However, France is facing great geographical disparities in this regard. In the overseas departments, infant mortality is more than two times that of metropolitan France. On the contrary, unlike most other developed countries, the USA still ranks poorly in terms of infant mortality. The positive trend in infant mortality reduction is mostly noticeable outside Blacks/African American communities. Potential reasons for high infant mortality can be relatively high share of pre-term babies in the USA, which could be due to problems with prenatal care and the health of mothers, as well as the lack of postpartum care. Interestingly, the US is more likely to define very low-weight babies as live births compared to other countries which can scale up the data (European Observatory, 2021c).

The USA reports devastatingly high maternal mortality rate of 17.4 per 100,000 births which is more than four times greater than in Belgium and around 2.2 times more than in France (Table 1).

Although France does not exhibit large percentage of obese population, social inequalities are prominent in this country when it comes to obesity. The percentage of obese managers in 2010 was 6.3 and workers were obese in 15.2% of the cases. USA is the absolute leader regarding the share of overweight population (42.8%) (Table 1). This can be attributed to poor eating habits, lack of exercise and loosely regulated food standards. It can be one of the driving factors behind the great spending on healthcare in the USA because overweight people tend to spend more on health services. The share of obese adolescents is especially concerning (20.5% in the period from 2011 to 2014) (European Observatory, 2021c).

France is at the forefront of tobacco and alcohol consumption with 25.4% of population aged 15+ who are daily smokers, and 11.4 liters of alcohol drunk per capita (Table 1). Alcohol and tobacco use are highly correlated with socioeconomic status. Tobacco and alcohol are the most common causes of avoidable mortality in France. Tobacco was estimated to cause 73 000 attributable deaths (59 000 men and 14 000 women) in 2004 (Hill, 2012) and alcohol to cause 49 000 deaths in 2009 (Guérin et al., 2013). With the purpose of reducing use, a number of cigarette and alcohol control laws based on regulation of publicity and sales, as well as taxes, have been introduced (European Observatory, 2021c).

Also, it is worth mentioning that smoking is more socially acceptable in France with its romantic representation in popular culture.

Finally, we can conclude that, even though the USA has the highest health expenditures in the world, its health status indicators, including life expectancy, are in most cases lagging behind other developed nations. These discrepancies can partially be attributed to high inequality and unequal access to healthcare among different population categories. Death tolls are high in the USA from smoking,

obesity, homicides, opioid overdoses, suicides, road accidents, and infant deaths. Besides, deeper poverty and less access to healthcare mean Americans at lower incomes die at a younger age than poor people in other rich countries (Roser, 2020).

Health Expenditures according to Key Functions

Table 2: Key Functions and Health Care Expenditures

| Indicator | Year | US in current prices (in \$) | Belgium in current prices (Euro, Millions) | France in current prices (Euro, Millions) | US in % | Belgium in % | France in % |
|---|------|------------------------------------|---|--|------------|-----------------|----------------|
| Current expenditure on health (current prices) | 2019 | 3,593,722.0 | 50,759.4 | 269,540.8 | 100 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 1,643,687.6 | 27,938.2 | 145,239.9 | 45.7 | 55.0 | 53.9 |
| Long-term care | 2019 | 172,654.5 | 11,412.2 | 42,725.4 | 4.8 | 22.5 | 15.9 |
| Ancillary Services | 2019 | unknown | 2,225.0 | 14,616.4 | unknown | 4.4 | 5.4 |
| Medical Goods | 2019 | 509,318.1 | 6,620.4 | 46,915.4 | 14.2 | 13.0 | 17.4 |
| Preventive Care | 2019 | 105,719.5 | 824.2 | 5,063.2 | 2.9 | 1.6 | 1.9 |
| Governance and Health System and Financial Administration | 2019 | 288,888.0 | 1,739.5 | 14,980.6 | 8.0 | 3.4 | 5.6 |
| Other Health Care Services | 2019 | unknown | unknown | unknown | unknown | unknown | unknown |

Source: <https://stats.oecd.org/>

Understanding the healthcare expenditures aids improved health possibilities, which will help to enhance human capital and increase productivity, boosting economic performance. As a result, assessing the phenomena of healthcare spending in a country is critical. Table 1.0 tells us what kind of goods and services are consumed in these respective countries.

The United States of America is an outlier in price. Given the GDP (Gross Domestic Product) of the United States compared to that of France and Belgium shows a significant difference. The USA spends a substantial amount on healthcare, way more than any other country mentioned in the table. The Population of the United States also contributes to the overall size of the health expenditure in the

United States.

Most nursing homes and long-term care in the United States are for-profit and privately owned. Medicare covers some patients, but the cost is still very expensive and bankrupting. Long-term care receives significantly less policy attention in the United States than health care, even though it influences spending by public programs and affects many Americans of all ages. There are several issues with the present long-term care system, ranging from unmet requirements and catastrophic burdens among the elderly to disagreements between state and federal governments about who is responsible for providing them. The need to enhance the system will increase as the population ages, generating significant policy challenges such as the balance between institutional and noninstitutional care, ensuring high-quality care. Belgium's long-term care policy strives to assist, support, and care for dependent (elderly) people. In general, the goal is to keep elderly people as independent as possible in their own homes for as long as feasible. Belgium has a mixed system, with a lot of state care and a lot of informal care, the majority of long-term services are funded by social security payments and general taxes and are supplied as part of the federal public compulsory health insurance system (Federal Compulsory Health Insurance Law of 14 July 1994). Long-term care policy in France is centered on a cash-for-care plan known as the Specific Allowance for Dependency, which was implemented in 1997. It was targeted at satisfying the requirements of older persons who were not covered by health insurance by assisting them in identifying and paying for care services. Unlike the United States, Belgium and France have policies in place that focus and facilitates long term care.

The United States is an outlier when it comes to governance and healthcare system and financial administration when compared to Belgium and France. The U.S. uses a disparate system of private providers and insurers, has higher administrative costs than other developed countries, because estimates are often centered on hospital and insurance expenses, administrative costs in the US health care system may be underestimated. Because they are frequently paid for by the employer and do not appear on hospital or insurer financial statements, whole portions of the health care industry (e.g., employee benefit consultants or employer human resources expenditures) may be removed from certain estimations. France usually direct government grants account for a substantial share of hospital capital funding, which leads to relatively low administrative costs despite per patient. Aside from analyses of the merits and shortcomings of different finance and delivery techniques, the cost of health care administration in terms of planning, regulating, and assessing health systems is scarcely an academic or public discussion topic outside of the United States.

Sources of Funding

Table 3: Health Care Financing

| Indicator | Year | US in % | Belgium in % | France in % |
|---|------|------------|-----------------|----------------|
| Government/compulsory schemes | 2019 | 25.8 | 22.0 | 5.5 |
| Compulsory contributory health insurance schemes | 2019 | 56.8 | 54.8 | 78.2 |
| Voluntary health care payment schemes (see comment below) | 2019 | 6.0 | 5.0 | 6.4 |
| Household out-of-pocket payment | 2019 | 11.3 | 18.2 | 9.3 |
| Other | 2019 | 0.1 | 0.0 | 0.6 |

Source: <https://stats.oecd.org/>

While health care costs have increased with the advancement of technology and medicine in recent years, the increase in the resources allocated by countries for health financing has increased the interest in health economics. On the other hand, the limited health finance resources of the countries and the inability of every individual in the society to reach health services equally have revealed the need for countries to reevaluate their own health finance systems. The aim of health financing is to create sufficient and sustainable resources to ensure that all individuals have financial access to health services. For this reason, the health financing method in a country is one of the most important factors in determining health policies and organizational structures.

In this part, we are going to talk about some of the health care financing indicators about US, Belgium and France. And we are going to compare the structure of funding between these 3 countries and some of the key differences.

First of all, we noticed some differences according to the data we found. Such as when in some countries this data is close to each other, while in another it is much less or more. The first indicator we want to talk about is Household out of pocket payment. In this indicator, we can see that while the data of America and France are close to each other, the data of Belgium is much more. We can explain the reason as follows: In Belgium, the following terminology is used: the national fee schedule establishes the official fees, divided into both the official reimbursed tariffs and the official patient's co-payments. Patient's co-payments can either be a fixed amount or a proportion of the official fee (or be equal to zero). On top of these national fees, extra-billing, an increased fee, can also be required by health care providers under some conditions. Co-payments vary from service to service but are usually equal for everyone, except for patients with preferential reimbursement, who pay reduced co-payments and It should also be noted that for some health care providers (such as midwives and physiotherapists), patients' co-payments also differ according to the status (conventioned/non-conventioned) of the provider, hence patients without preferential reimbursement will both have higher co-payments and potentially extra-billings with non-conventioned providers.

Another remarkable data is as you can see France with %78.2 in Compulsory contributory health insurance schemes. In France, for the first time after 1945, the “social insurance system” came to the fore. health system, national social insurance backed by taxes and optional supplementary sickness insurance is based on the system.

With the “General Health Insurance” adopted in 2000, 99.9% of the society is covered by insurance included in the scope. Thus, everyone with a legal right of residence and a certain income level even those who are below can benefit from the insurance. This insurance covers the examination of patient costs, medication, care and prosthesis costs, laboratory tests, surgical interventions, it covers expenses such as hospitalizations. France’s health care system, protecting everyone, regardless of income or health status It is a health system that aims to but while the state is trying to provide quality service, it is difficult to balance the expenditures made and the necessary financing. So we think this can explain why compulsory contributory health insurance schemes are higher in France.

Conclusion

In Belgium, health care system is founded on the principles of equal access and freedom of choice. The whole population is encompassed by the national health insurance and enjoys a wide variety of benefits included in the package. Compulsory health insurance is combined with a private system of health care delivery, based on independent medical practice, free choice of physician and predominantly fee-for-service payment. Hence, we can deduce that Bismarckian model is in place (Corens, 2007).

On the other hand, the French health care system combines the elements of Beveridge and Bismarck model, with its insurance funds and strong state supervision. Patients benefit from easy access to care (freedom of choice, direct access to the specialists) and an abundant supply, by both public and private providers (Sandie at al., 2004).

Participation in France’s statutory health insurance system is compulsory. The system covers most costs for hospital, physician, and long-term care, as well as prescription drugs; patients are responsible for coinsurance, copayments, and balance bills for physician charges that exceed covered fees. The insurance system is funded primarily by payroll taxes (paid by employers and employees), a national income tax, and tax levies on certain industries and products. 95% of citizens have supplemental insurance to help with these out-of-pocket costs, as well as dental, hearing, and vision care (Tikkanen at al., 2020).

Public and private health insurance are combined and finance the same services by the same providers for the same populations (Sandie at al., 2004).

The health care system in the USA is extremely complex. It is a mixed system, in which publicly supported government schemes Medicare and Medicaid coexist with privately financed (private health

insurance plans) market coverage. As a manner of financing and providing healthcare, out-of-pocket fees and market-based coverage predominate. As of 2019, approximately 50% of citizens had private insurance coverage through their employer (group insurance), 6% had private insurance coverage through health insurance marketplaces (nongroup insurance), 20% had Medicaid, 14% had Medicare, and 1% had other public forms of insurance (e.g., Veterans Health Administration [VHA] and Military Health Service [MHS]), leaving 9% of Americans uninsured. Typically, hospitals are compensated through a diagnostic-related groups (DRG). DRG (inpatient) and APC (outpatient) codes do not contain physician fees. Private insurers pay hospitals based on DRGs, case rates, per diems, fee-for-service, and/or discounted fee-for-service programs.

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The Netherlands, Slovenia, and the US

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Infant mortality and maternal mortality rate

With Maternal mortality rate the order is the same. Lowest is in Slovenia with 0 per 100.000 live births. Netherlands has 3 per 100.000 live births and USA has the highest with 17,4 per 100.000 live births. Here I would firstly like to focus on Slovenia with extremely low maternal mortality rate. In Slovenia there were 19.585 live births in 2018 (SURs). That mean that we have very low sample size. That mean that there were not any maternal deaths in Slovenia but if only one maternal death happened Slovenian infant mortality rate would be 5,1 which is very big difference. For example, in USA there were 658 maternal deaths in 2018 (Hoyert, Miniño, 2020). In USA there were 3.791.712 live births in 2018. So, if we add one maternal death in USA same as we did in Slovenia, we would gate mortality rate 17,380 compared to 17,354 before. So, if we define the $\Delta\text{MMRSLO} = 5,1$ and $\Delta\text{MMRUSA} = 0,026$. So, there is a problem with that indicator for small countries where the small change in number of maternal mortalities has a big change in indicator. Maybe there would be better to represent this type of data on the interval so that Maternal mortality rate in Slovenia would be written as $5,1 > \text{MMRSLO} \geq 0$ and for the USA $17,380 > \text{MMRUSA} > 17,327$

In this part I would also like to comment on the US data which is much higher than Slovenian and Netherlands. In Slovenia before and after birth mothers and infants get a lot of services and check-ups which increase, they survivability and all visits to the doctor are free. In Netherlands there is a system in place where you need to pay just a limited amount of money which you will probably already pay when you are giving birth so you will have all your check-ups covered by insurance. But in the States, you need to pay for those services and that is why people are disincentivize to go to a doctor. And that could explain this difference at list partly.

Obesity rates

Obesity rates in the US is 32,6% of total population compared to Slovenian rate of 19,4% and 14,1% for Netherlands. The reasons behind higher obesity rates in USA can be explained with several explanations. Firstly, the portions in restaurants in the State are bigger than in Slovenia and Netherlands. Also, there is a corelation between fast food sails and obesity. That might also be the reason because fast food makes 11% of diet of average American. (Obesity in America, 2021). There is

also difference in government incentives to prevent obesity. Because obesity leads to more health issues, there is larger incentives to promote healthier lifestyle in countries with higher government stakes in healthcare system such is Slovenian.

Medical goods

The rate of expenditure for medical goods is highest in Slovenia with 21% health care expenditure, then follows the states with 14% and the lowest is Netherlands with 11% of health expenditure. Slovenia has much higher relative health expenditure on medical goods compared to other two countries. I would suggest that is because the market for goods is much more globalised than market for labor or real estate and Slovenia has lower health expenditure per capita than both of countries. So due to medical goods being goods Slovenia need to spend relatively more on them. Because prices for goods does not change so much between countries compared to labor which pries is more influenced by local situation.

| Indicator | Year | US | Slovenia | The Netherlands |
|---|------|-----------|----------|-----------------|
| <i>1. Health Expenditure and Financing</i> | | | | |
| GDP per capita, PPPs | 2019 | 63,990 | 41,181 | 59,469 |
| Health care expenditure as % of GDP | 2019 | 16.8 | 8.5 | 10.2 |
| Per capita health care expenditure in PPPs | 2019 | 10,948.50 | 3,303.50 | 5,739.20 |
| GINI coefficient (disposable income, post taxes and transfers) | 2016 | 41.1 | 24.8 | 28.2 |
| <i>2. Health Care Resources and Utilization</i> | | | | |
| # of physicians per 1000 population | 2019 | 2.64 | 3.26 | 3.72 |
| # of hospitals per million population | 2019 | 18.81 | 13.89 | 32.75 |
| # of hospital beds per 1000 population | 2019 | 6.54 | 2.86 | 4.83 |
| # of days in hospital (average length of stay) | 2010 | 4.8 | 7.3 | 5.6 |
| # of visits to physician (number of consultations per capita for doctors only – exclude dentists) | 2011 | 4 | 6.5 | 6.6 |
| <i>3. Health Status</i> | | | | |
| Life Expectancy | 2019 | 78.9 | 81.6 | 82.2 |
| Infant Mortality Rate | 2018 | 5.7 | 1.7 | 3.5 |
| Maternal Mortality Rate | 2018 | 17.4 | 3 | 3 |
| Body weight (obese population, measured, % of total population) | 2019 | 42.8 | 56.5 | 48.4 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2019 | 10.9 | 17.4 | 15.4 |
| Alcohol consumption (liters per capita (15+)) | 2019 | 8.9 | 11.1 | 8.2 |

Health expenditures according to key functions

In this section we will discuss on what key functions of healthcare expenditures take place. We also will take a look into the structure of these expenditures by putting the values into percentages to compare the countries with each other to have a proper picture of the differences and similarities between the countries. Below is the table for the health expenditures for the USA, Slovenia and The Netherlands. It is divided into multiple indicators. The selected data is from the latest available in common year for all

countries.

| Indicator | Year | US | Slovenia | The Netherlands | US | Slovenia | The Netherlands |
|---|------|---------------------------|------------------------------|------------------------------|------|----------|-----------------|
| Health Care Expenditure | | in current prices (in \$) | in current prices (in Euros) | in current prices (In Euros) | in % | in % | in % |
| Current expenditure on health (current prices) | 2019 | 3593722 | 4125 | 82365 | 100 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 2517143 | 2403 | 41850 | 70% | 58% | 51% |
| Long-term care | 2019 | 172655 | 421 | 23099 | 5% | 10% | 28% |
| Ancillary Services | 2019 | n/a | 138 | 1535 | n/a | 3% | 2% |
| Medical Goods | 2019 | 509318 | 875 | 9242 | 14% | 21% | 11% |
| Preventive Care | 2019 | 105719 | 131 | 2720 | 3% | 3% | 3% |
| Governance and Health System and Financial Administration | 2019 | 288888 | 157 | 3056 | 8% | 4% | 4% |
| Other Health Care Services | 2019 | n/a | n/a | 863 | n/a | n/a | 1% |

(Source: OECD, 2021).

When taking a look at the table, it stands out that the percentage of total health care expenditures for curative and rehabilitative care is way higher in the USA than for Slovenia and The Netherlands. While Slovenia and The Netherlands lie around the same number (58% and 51% respectively), the USA has 70% of health care expenditures devoted to curative and rehabilitative care. This is odd since the share devoted to preventive care is the same for all countries yet the USA spends way more on care dedicated to recovery. However, when looking at the data for obesity retrieved from the OECD database as well (see table previous section), it is clearly visible that obesity rates in the USA are way higher compared to Slovenia and the Netherlands. Obesity is an important factor in health issues. Some of these issues are diabetes type 2, a stroke and a high blood pressure (etc.) (CDC.gov, 2021). This could be a factor explaining the higher percentage of spending on curative and rehabilitative care in the USA.

Next to this, another key function stands out when comparing the countries. While the USA and Slovenia have quite a low share of their expenditures devoted to long-term care, the Netherlands, however, has quite a big share devoted to long-term care. Long-term care includes care for mostly elderly people (of course also other groups) (Zorgwijzer, 2021). One of the reasons for a low share devoted to long term care in the USA is due to it being a small market in the USA as well as that many people have their friends and family take care of their long term care needs since long term care is not included in private insurance or Medicare (Upadhyay & Weiner, 2019). In the Netherlands, there is a law, called the law of long term care which covers a lot of the costs made for parts long term care which

are not included in the health insurance package. Some parts of long term care however are included in the base health insurance package (Mul, 2021). To fund the law of long term care, taxpayers pay 9,65% of their taxable income up to 33.791 euros (Tikkanen, Osborn, Mossialos, Djordjevic & Wharton, 2020). This is a key difference and an explanation for the big difference between the USA and The Netherlands

Funding Sources

For the following subchapter, health care financing was observed and compared between the United States, the Netherlands and Slovenia by using specific indicators. These indicators include government / compulsory schemes, compulsory contributory health insurance schemes, voluntary health care payment schemes, household out of pocket payment schemes, and other. Voluntary health insurance schemes were used in the Netherlands and Slovenia but because no data could be produced for the US, voluntary health care payment schemes were only used for the US instead.

Table 3: Health Care Financing for the US, Slovenia, and Netherlands.

| Indicator | Year | US | Slovenia | The Netherlands |
|---|------|------|----------|-----------------|
| Health Care Financing | | in % | in % | in % |
| Government/compulsory schemes | 2019 | 25.8 | 4.2 | 6.5 |
| Compulsory contributory health insurance schemes | 2019 | 56.8 | 68.6 | 76.2 |
| Voluntary health care payment schemes (see comment below) | 2019 | 6.0 | 14.3 | 5.3 |
| Household out-of-pocket payment | 2019 | 11.3 | 11.7 | 10.6 |
| Other | 2019 | 0.0 | 1.3 | 1.5 |

Source: Teamwork based on the data gathered from <https://www.oecd.org/els/health-systems/health-data.htm>

Table 3 illustrates the payment of certain financing schemes for health goods and services in the United States, Slovenia, and the Netherlands. Notable discrepancies in the table above focus on government / compulsory schemes, compulsory contributory health insurance schemes and voluntary health care payment schemes. With respect to government / compulsory schemes, The United States leads above Slovenia by 21.6% and the Netherlands by 19.3%. Notably, the Netherlands takes lead for compulsory contributory health insurance schemes at 76.2%. A 19.4% difference from the U.S and a 7.6% difference from Slovenia. Voluntary health care payments schemes projects Slovenia at 14.3%, an 8.3% difference for the U.S and a 9% difference for the Netherlands. Government/ compulsory schemes in the United States consist of programs such as Medicare and Medicaid which has expanded care to cover even greater portions of the U.S population under the Affordable Care Act. As of 2019, Medicare accounted for 21% of health consumption in the United States. Military medical care is also included

under government sponsored care. Unlike the health laws dictating the spending under Veterans Insurance for military medical care, Medicare cannot negotiate drug prices under the Medicare Modernization Act causing the United States to spend significantly more on a single pill than Slovenia or the Netherlands. Government schemes do not cover the total price of services and goods and may involve payment from patients through copayments (Classification of Health Care Financing Schemes). Compulsory contributory health insurance accounts for a striking percentage of spending for health goods and services in the Netherlands. Compulsory contributory health insurance ensures health care for targeted population groups through mandatory participation and eligibility based on the payment of health insurance contributions by or on behalf of the individuals concerned (Classification of Health Care Financing Schemes). In both the Netherlands and Slovenia, every person is obligated to pay into a universal mandatory health insurance. i.e., The Health Insurance Institute of Slovenia. In the United States an example of compulsory contributory health insurance would be insurance through your employer.

As illustrated in Table 3 the percentage of Household out-of-pocket payments for each country is relatively close in range. However, there is a great difference in the pricings of these out-of-pocket payments. Per data gathered from The World Bank comparing out of pocket expenditure per capita, current international dollars, in the United States, Slovenia, and the Netherlands; The United States ranks amongst the highest spenders at \$1,148.32. This is a distinctive difference compared to America's European counterparts, Slovenia's per capita being the lowest amongst the three nations in out-of-pocket expenditure at \$378.42 and the Netherlands at \$608.47. (The World Bank)

Conclusion

The United States, Netherlands, and Slovenia are all developed countries whose health care systems share both stark differences and similarities. We discovered some differences between our countries and deepened our knowledge about our own health care system. As I am looking at typologies of our system I see that we are based on Bismarck's model, with some adaptations. For example, our government cover for insurance of unemployed people. When looking at the health expenditures based on key functions, most values lie next to each other for our three countries. However, in curative and rehabilitative care as well as in long term care there are big differences between mainly the USA and its European counterparts for our report, the Netherlands and Slovenia. In general there are 4 main healthcare typologies. These are the following: The Beveridge Model, The Bismarck Model, the Out-Of-Pocket model and the National Health Insurance Model (Vera Whole Health, 2019). In the Netherlands a healthcare system based on the Bismarck model was introduced in 1941. Back then the system consisted of public and private companies for insurance. In 2006 however, a new law came into place merging public and private insurance markets into a universal health insurance program consisting of private insurance and mandatory coverage (Tikkanen et al, 2020). The Bismarck system has generally private health providers and hospitals, which is the case in the Netherlands as well. However, the

United States is a bit more intricate. The American health care system has taken characteristics from each model and has incorporated it into their health care system. As a result, we have programs such as Medicare and private insurance companies such as Cigna co existing in the same system. The context of the ACA takes an important role in encouraging this. Under the ACA, the American government gave coverage to the elderly, poor, and disabled. By leaving out the middle class without creating a source of options the government had made a particular group, in specific, the working class, more susceptible to private insurance companies forcing them to purchase insurance if their employer didn't offer it. Insurance through an employer is an example of compulsory contributory health insurance. This form of health insurance is what covers most American's if they cannot qualify for Medicare or Medicaid. However, health insurance cost is a heavy burden on businesses and despite the contribution made on their part there is still a cost sharing relationship. Employer sponsored insurance most closely relates to the Bismarck model. Medicare is considered government / compulsory health insurance or national health insurance. Under national health insurance, governments provide medical services and goods to all or certain groups of a population, in which Medicare does, as discussed one cannot be eligible for Medicare unless they are 65 and older. Medicare is both funded by the federal government and taxes. Lastly, those who cannot receive health insurance from their employer, does not qualify for Medicaid or Medicare, is over the age of 26 (depending on what state you're in) and can no longer be covered on their parents' health plan must opt for the out-of-pocket model. Due to the individual mandate put in place by the ACA to ensure every American has health insurance, if you do not have a health plan you may be subjected to a penalty tax. This intricate model has caused the American health care system to have many inefficiencies. The United States currently holds the world's largest economy measured by GDP of 21.43 trillion US dollars. The largest sector in the U.S economy is the health economy due to our excessive amount of spending. Unfortunately, for America's case excessive spending and higher prices doesn't mean higher quality healthcare because of government policies and pushed legislation by lobbyist.

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Ireland and Germany

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Introduction

Germany has the highest population in the European Union, with a highly successful economy. Its location and economic value have allowed the country to become the powerhouse of the EU. Almost on the contrary, Ireland is a small island on the edge of Europe, with a tender population of around 5 million people. Famously, the Irish economy is small and open, which developed massively towards the end of the 20th century. However, it was gravely affected by the Global Financial Recession (2007-2009).

For this paper, the authors wish to analyze and compare both the German and Irish Health Systems. As highlighted above, both countries are very different, hence, they will have different health structures. The authors wish to particularly focus on the large differences between both systems, to find out the positives and negatives of each health system, for the purpose of trying to understand more about health economics. While analyzing the data collected for this project, the authors found there were notable variances between the two countries in certain areas.

Germany is the biggest economy in Europe. Therefore, the authors felt it was only fitting to comment on Table 1. Here it is seen that Ireland's GDP per capita is nearly twice that of Germany. Ireland has the highest GDP per capita in the EU apart from the small city-state of Luxembourg (Honohan, 2021). This is mainly due to the fact that Ireland has become the high-tech hub of Europe (Regan & Brazys, 2018). With Ireland having such a high surplus of net exports due to its high level of FDI (McQuinn & Varthalitis, 2018), this does provide economic benefits, but it makes the Irish economy and the median person look wealthier than it actually is (Brazys & Regan, 2017). Looking at the stats in the table compiled by the authors, the percentage of the GDP spent on health care in Ireland is substantially lower than in Germany. This makes sense when you consider that a lot of the GDP of Ireland flows out of the economy due to high reliance on FDI. Therefore, the per capita health care expenditure in current prices is a far better indicator, when comparing how much the countries spend on health care. Here you can see that Germany spends about \$1,100 more per capita than Ireland.

This figure correlates with the second section (health care resources and utilization) of Table 1, where Germany scores distinctly higher than Ireland. Germany has more than double the number of hospitals per million people and 5.03% more hospital beds per 1,000. This is interesting, as in December 2019,

608 people were waiting in trolleys in hospitals across Ireland (Burke, 2021). The lack of beds and consultants is widely seen as a reason for these record numbers of trolley patients and thus, the overcrowding of hospitals (Cullen, 2020). This ties nicely with the data compiled for this report. Germany, on the other hand, has a lot more beds to offer, with a hospital bed utilization of only 77.2% in 2019 (Statista, 2021).

Recent Irish governments have launched 'Sláintecare' which is a ten-year program to try to end Ireland's two-tiered health system. According to the Sláintecare report, the health system will need at least 2,500 extra beds across the next decade (Cullen, 2020).

The other figure that stands out the most to the authors from the table is the number of physicians visits. Ireland interestingly has a smaller number of 5.8. This corresponds with recent reports that there are 728 vacant consultant jobs within the Irish health service (Malone, 2019). Ireland has one of the highest waiting lists in the EU (Pope, 2021) the Irish Hospital Consultants Association illustrating that it is the lack of consultant recruitment, that causes such a high number (Maloney, 2021).

Another notable difference is the life expectancy. For two developed countries, the authors felt that 1.4 years is a considerable difference, especially considering that in the third block of Table 1, it shows that the lifestyle in terms of smoking and alcohol are similar for both countries. In the second half of the 20th century, life expectancy rates rose dramatically amongst EU states. This has since slowed down in the last 10 years, particularly in western Europe (Malone, 2019). This slowdown is mainly due to the decrease in life expectancy gains from reducing death rates from circulatory diseases (OECD, 2018). While the authors found it difficult to find concrete reasons to why Ireland's rate is higher, as it perhaps is a study in itself, the following aspects might be possible explanations.

Genetics along with diet, lifestyles, and environmental conditions are factors that influence life expectancy (Rosero-Bixby, 2008). Research has shown that diet does play a part in life expectancy, as seen in Mediterranean countries (Martinez-Gonzalez & Martín-Calvo, 2016). As Ireland is an island, the authors believe that perhaps a greater access to fish products is a reason for its higher life expectancy. There is also no real difference between the gender makeup of both country's population. Therefore, the only real answer that the authors concluded to for Ireland's higher rate, is the fact that they have the youngest population in Europe. 33.3% of the population are under 25 years in comparison to Germany who have only 24% (IDA, 2018).

Table 1: Basic Data Comparison

| Indicator | Year | Germany | Ireland |
|---|-----------|-------------|-------------|
| <i>1. Health Expenditure and Financing</i> | | | |
| GDP per capita, PPPs | 2020 | \$53,804.20 | \$90,471.40 |
| Health care expenditure as % of GDP | 2020 | 12.5 | 7.2 |
| Per capita health care expenditure in PPPs | 2020 | \$6,730.90 | \$5,604.20 |
| GINI coefficient (disposable income, post taxes and transfers) | 2018 | 0.289 | 0.292 |
| <i>2. Health Care Resources and Utilization</i> | | | |
| # of physicians per 1000 population | 2020 | 4.47 | 3.47 |
| # of hospitals per million population | 2019 | 36.42 | 17.43 |
| # of hospital beds per 1000 population | 2019 | 7.91 | 2.88 |
| # of days in hospital (average length of stay) | 2018 | 8.9 | 6.1 |
| # of visits to physician (number of consultations per capita for doctors only – exclude dentists) | 2019 | 9.8 | 5.8 |
| <i>3. Health Status</i> | | | |
| Life Expectancy | 2019 | 81.4 | 82.8 |
| Infant Mortality Rate | 2019 | 3.2 | 2.8 |
| Maternal Mortality Rate | 2017 | 2.8 | 1.6 |
| Body weight (obese population, measured, % of total population) | 2012/2015 | 23.6 | 23 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2017 | 18.8 | 18 |
| Alcohol consumption (litres per capita (15+)) | 2019 | 10.6 | 10.8 |

Health Expenditures According to Key Functions

This chapter focuses on the differences in health expenditures according to key functions between Germany and Ireland. Table 2 shows the health care expenditures in current prices (in € Mio) and in the share of different functions in 2019 for the two selected countries. When comparing the share in expenditures, one can notice mainly two significant differences: the expenditures on curative and rehabilitative care and the expenditures on medical goods.

First, the authors examine the difference in expenditures in curative and rehabilitative care. Germany spent 49.05% and Ireland 56.41% of total expenditures in 2019 on curative and rehabilitative care, resulting in a difference of 7.37%. While the authors could not find any specific explanation for this difference, a possible reason might be that Germany spends more money on preventive care than

Ireland, hence, German citizens might have to go to the doctor less often. Additionally, Germany spends a greater share on medical goods, as explained in more detail below, possibly resulting in faster recovery times.

Secondly, the authors took a closer look at the difference in spending on medical goods, with Germany spending 19.37% and Ireland 13.16% of total expenditures, implying a difference of 6.21%. One interesting metric to consider when talking about medical goods, is the so-called 'W.A.I.T (Waiting to Access Innovative Therapies) Indicator'. This indicator measures the rate of availability and the time to availability of new medicines across Europe (IQVIA, 2021). The report by IQVIA (2021) shows, that for both the total availability of new medicines by approval year and the rate of availability, Germany ranks best among all observed European countries. Regarding the rate of availability, Germany is the only country with 100% public availability. Ireland, on the other hand, ranks below the EU average, with only 54 of 152 new medicines being available in the approval year. This is probably due to their small market size. Concerning the median time of availability, measured as the day between market authorization and date of availability to patients, Germany again, ranks best with only 50 days, in stark contrast to 446 days in Ireland - meaning that an Irish citizen has to wait over a year more than a German citizen until the medicine is available.

Table 2: Health Expenditures According to Key Functions

| Indicator | Year | Germany | Ireland | Germany | Ireland |
|---|-------------|--------------------------------------|--------------------------------------|----------------|----------------|
| Health Care Expenditure | | in current prices (in € Mio.) | in current prices (in € Mio.) | in % | in % |
| Current expenditure on health (current prices) | 2019 | 403,444.00 | 23,781.80 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 197,882.00 | 13,416.40 | 49.05 | 56.41 |
| Long-term care | 2019 | 76,064.00 | 5,143.70 | 18.85 | 21.63 |
| Ancillary Services | 2019 | 19,980.00 | 674.40 | 4.95 | 2.84 |
| Medical Goods | 2019 | 78,151.00 | 3,130.10 | 19.37 | 13.16 |
| Preventive Care | 2019 | 13,485.00 | 634.20 | 3.34 | 2.67 |
| Governance and Health System and Financial Administration | 2019 | 17,882.00 | 556.40 | 4.43 | 2.34 |
| Other Health Care Services | 2019 | 0.00 | 226.60 | 0.00 | 0.95 |

Funding Sources

This chapter focuses on the differences in the structure of funding between the two selected countries. The structure of financing for Germany and Ireland for the year 2019 is shown in Table 3. While

household out-of-pocket payments and other types of financing schemes are quite similar for both countries, with absolute differences of 1% and 0.6% respectively, there are huge differences for government/compulsory schemes, compulsory contributory health insurance schemes and voluntary health care payment schemes. Therefore, this chapter focuses on these three funding sources.

The first two categories of financing schemes are government/compulsory schemes and compulsory contributory health insurance schemes, consisting of the sub-categories social health insurance and compulsory private insurance (OECD et al., 2017). The reason for the huge differences between Germany and Ireland (6.5% vs. 74% and 78.1% vs. 0.6% respectively) can be explained by the general structure of the countries' health care systems.

Germany, on the one hand, has social health insurance in place, meaning that most citizens pay a non-risk related insurance premium that is deducted directly from the salary (Statutory Health Insurance, SHI). Moreover, the government pays into SHI on behalf of the long-term unemployed (CNBC, 2019). Additionally, if people earn above a fixed threshold, they can also opt for compulsory Private Health Insurance (PHI) but then have to pay a risk-related insurance premium which is directly deducted from the salary too (Blümel et al., 2020). In both cases (SHI and PHI) employers have to contribute to the insurance premiums (Döring & Paul, 2010).

Ireland, on the other hand, mainly has a public health system to which every Irish resident is entitled to and which is governed by the Health Service Executive (HSE), set up in 2005 with the aim of having one single interconnected healthcare management body (Mesabbah & Arisha, 2016). General taxation is the primary source of revenue that the Irish government spends on the public health system (Niamh Murphy, 2020). Similar to Germany, Irish residents can also opt for private health insurance, but opposed to Germany, not as a substitute for compulsory public health insurance but rather as voluntary supplementary health insurance, falling in the third category shown in Table 3.

Finally, the authors have a closer look at exactly these voluntary health care payment schemes. Here, a substantially higher share of the funding for Ireland (11.8%) compared to Germany (1.4%) can be observed. This can be explained through the fact that while Germany has very good coverage of services through their compulsory schemes, so Germans only opt for minor additional insurances such as dental care (CNBC, 2019), Ireland's voluntary health care schemes are much more advanced compared to relying on public health. Obtaining private insurance means, faster access to treatments and services and a wider choice of consultants. The insuree also has access to both public and private hospitals and the cost of the treatment is either paid in full or in part by my insurer (Irish Life Health, n.d.).

Table 3: Funding Sources

| Indicator | Year | Germany | Ireland |
|--|-------------|----------------|----------------|
| Health Care Financing | | in % | in % |
| Government/compulsory schemes | 2019 | 6.5 | 74 |
| Compulsory contributory health insurance schemes | 2019 | 78.1 | 0.6 |
| Voluntary health care payment schemes | 2019 | 1.4 | 11.8 |
| Household out-of-pocket payment | 2019 | 12.7 | 11.7 |
| Other | 2019 | 1.3 | 1.9 |

Conclusion

This paper analyzed and compared the health system of Germany and Ireland and outlined the most interesting and significant differences between the countries. In this final chapter, the authors want to determine the type of health care system of the studied countries and then, summarize the main findings.

Germany's health care system corresponds to the so-called 'Bismarck model'. It is funded through 'sickness funds' that collect funds through payroll deductions (Vera Whole Health, 2020). As explained in chapter 3, both employers and employees must contribute. Additionally, there are multiple competing insurers that cover every employed person regardless of pre-existing conditions (HCA, 2021). However, there is also one major difference between the Bismarck model and Germany's health care system: While the Bismarck model requires employment for insurance, Germany's social health care system ensures universal health coverage.

Ireland, on the other hand, introduced the so-called 'Beveridge model'. This model establishes a central national health service that delivers care (Vera Whole Health, 2020). In the case of Ireland, this central authority is the HSE, as explained in chapter 3. Additionally, Ireland's health care system has a standardized set of benefits and is funded by general taxes, which is also in line with the Beveridge model (HCA, 2021). However, Ireland has one major point of differentiation as well: While the Beveridge model normally implies no out-of-pocket costs, there are out-of-pocket costs in place in Ireland, accumulating to about 15% of health spending in Ireland (OECD et al., 2017).

Throughout the course of this paper, various interesting findings were obtained. The first chapter showed that Ireland has as very high GDP but that this is mainly due to FDI. Hence, the authors found that per capita health care expenditure in current prices is a better indicator for health spending, rather than a percentage of overall GDP. The higher per capita health care expenditure in current prices

compared to Germany results in better figures regarding the number of physicians, hospitals, and hospital beds. The second chapter focused on Ireland spending more on curative and rehabilitative care compared to Germany (in relative terms), while Germany spends more on medical goods. Additionally, the authors found a higher life expectancy in Ireland compared to Germany, probably resulting from a younger population in Ireland. Finally, the third chapter showed the differences in funding sources, with Germany having employers and employees paying contributions from their salary to sickness funds, while Ireland uses funds obtained from general taxation of citizens and has one government agency in charge of public health, the HSE.

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Denmark, Switzerland, and the US

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INTRODUCTION

The aim of this report is to present our findings so far and to point out the main differences among countries. For all assignments, we did the research for the following countries: Denmark, Switzerland, and the USA. Thus, in accordance with the above, this report will be dealing with the differences among these countries.

We will start with Basic Data Comparison that is dealing with Health Expenditures and Financing, Health Care Resources and Utilization, and Health Status.

Table 1

| Indicator | Year | US | Denmark | Switzerland |
|---|------|-----------|---------|-------------|
| <i>1. Health Expenditure and Financing</i> | | | | |
| GDP per capita, PPPs | 2020 | 62940.9 | 59916.7 | 71336.1 |
| Health care expenditure as % of GDP | 2019 | 16.8 | 10 | 11.3 |
| Per capita health care expenditure in PPPs | 2019 | 10,948.50 | 5477.6 | 7138.1 |
| GINI coefficient (disposable income, post taxes and transfers) | 2017 | 0.39 | 0.26 | 0.30 |
| <i>2. Health Care Resources and Utilization</i> | | | | |
| # of physicians per 1000 population | 2018 | 2.84 | 4.19 | 4.34 |
| # of hospitals per million population | 2018 | 18.81 | no data | 33 |
| # of hospital beds per 1000 population | 2018 | 2.83 | 2.61 | 4.63 |
| # of days in hospital (average length of stay) | 2018 | 6.1 | 6.0 | 8.2 |
| # of visits to physician (number of consultations per capita for doctors only – exclude dentists) | 2007 | 4.0 | 4.5 | 4.1 |
| <i>3. Health Status</i> | | | | |
| Life Expectancy | 2020 | 77.3 | 81.3 | 83.2 |
| Infant Mortality Rate | 2018 | 5.7 | 3.7 | 3.3 |
| Maternal Mortality Rate | 2018 | 17.4 | 1.6 | 6.8 |
| Body weight (obese population, measured, % of total population) | 2019 | 34.7 | 34.2 | 30.6 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2017 | 10.5 | 16.9 | 19.1 |
| Alcohol consumption (liters per capita (15+)) | 2019 | 8.9 | 9.5 | 9.3 |

Data retrieved from OECD database (<https://stats.oecd.org/>)

We will start from the GDP as a crucial indicator of the health of a country's economy. From Table 1, we can see that Switzerland has the highest GDP per capita amounting to 71336.1. However, we should bear in mind that the GDP itself has some shortcomings when we want to use it as a comparison indicator. Moreover, it does not give the most accurate information as there is no data on how the GDP is distributed among citizens. To be more specific, on one side we can have an example where the GDP of a country captures growth but on the other side, there is a rise in income inequalities which is harmful to citizens. Therefore, looking at the bigger picture, Switzerland is the country with a high number of frontier workers. These workers are excluded from the population numbers, but at the same time, they give a big contribution to the country's GDP. (OECD-lilibrary, 2013)

Another country we have researched is the USA, which has an economy that is considered the largest in the world. In the USA, public sources make up just under half of the healthcare expenditures, private third-party payer sources about 40%, while the remaining 11% is being paid by individuals out of pocket. Looking at health care expenditures per head, the USA spends 30% more money than Switzerland which is the second-largest spender when it comes to health care. Thus, in addition to the previous things said, the USA has a higher health expenditure of 5.5 compared to Switzerland, although Switzerland's GDP per capita is higher than the USA's, the difference being 8395.2. Going further, these indicators are not 100% credible when it comes to the general picture of the health of a country's population. The proof of the validity of this claim is in the life expectancy indicator because Switzerland's life expectancy is higher for 5,9 than in the USA. Furthermore, with a life expectancy of 83.2 years, Switzerland's life expectancy and healthy life expectancy are among the highest in Europe and quite beyond the averages for the EU. This could be linked with Switzerland's system as it offers direct access to all levels of care with essentially no waiting times. Moreover, the overall public satisfaction with the healthcare system is high. (European Observatory on Health Systems and Policies, 2015, 2020)

Therefore, what is certain is that the healthcare system is not the main contributor to people's health. There are other factors known as 'social determinants of health' that play a role in determining health status. These factors are mainly as follows: parents' education, poverty, language barriers, racial segregation, safety, workforce issues, social capital, and a host of environmental factors such as clean air and water. (European Observatory on Health Systems and Policies, 2015)

Looking at Denmark as a small high-income country, access to a broad scope of health services is mostly free of charge for all residents. Going further, more than 80% of its health care expenditures are financed by the state. Even if it has a lower GDP per capita compared to Switzerland (11,4719.4) its numbers are pretty similar to Switzerland's. But Denmark captures high health inequalities between educational, occupational, and ethnic groups. Besides this, there is a serious challenge for this country as socioeconomic differences in health have increased. All this is captured at the beginning of a person's life as infant mortality rate and the risk of low birth weight are correlated with the mother's educational level. What stands out when comparing these three countries is the difference in infant mortality indicator and maternal mortality indicator, for which the USA has a really high number. One possible reason for the USA's infant mortality rate relates to pre-term babies. There is also a line of thinking that the cause of rising numbers of pre-term babies is due to the problems with prenatal care and the health of mothers. What could be seen as similarities are the causes of mortality between these countries. The main causes in all three countries are the following: cancer, heart disease, and circulatory diseases. (European Observatory on Health Systems and Policies, 2012, 2015, 2020)

Table 2

| Indicator | Year | US | Denmark | Switzerland | US | Denmark | Switzerland |
|---|------|---------------------------|------------------------------|------------------------------|-------|---------|-------------|
| Health Care Expenditure | | in current prices (in \$) | in current prices (in Euros) | in current prices (In Euros) | in % | in % | in % |
| Current expenditure on health (current prices) | 2019 | 3593722 | 232468 | 82080 | 100 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 2517143 | 128010 | 44675 | 70% | 55.1% | 54.43% |
| Long-term care | 2019 | 172655 | 57899 | 16769 | 5% | 24.9% | 20.4% |
| Ancillary Services | 2019 | n/a | 10300 | 3579 | n/a | 4.5% | 4.36% |
| Medical Goods | 2019 | 509318 | 24557 | 11857 | 14% | 10% | 14.45% |
| Preventive Care | 2019 | 105719 | 5730 | 1809 | 2.97% | 2.44% | 2.20% |
| Governance and Health System and Financial Administration | 2019 | 288888 | 5971 | 3388 | 8.04% | 2.57% | 4.13% |
| Other Health Care Services | 2019 | n/a | 0 | 0 | n/a | 0.0% | |

The next series of data is Health expenditures according to key functions, inpatient/outpatient curative care and rehabilitative care, long-term care, ancillary services and medical goods, preventative care, governance and health system and financial administration.

While some data such as preventative care, which shows what steps a Country is taking to prevent disease, all three Countries USA, Denmark and Switzerland have relatively low percentages with preventative care only being about 2% of the expenditure. Also, Ancillary services are a variety of services provided to out-patients, mainly performed by paramedical or medical technical personnel with or without the direct supervision of a medical doctor, such as laboratory, diagnosis imaging and patient transport (ambulance). Both Switzerland and Denmark have relatively similarly low percentages about 4.5%.

Curative and Rehabilitative care are a large outlier, the United States expenditure is 15% higher than Denmark and Switzerland. Curative care is one in which the principal medical intent is to relieve symptoms of illness or injury, to reduce the severity of an illness or injury or to protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal function. For example if a person was in a car accident and needed to be transported to a hospital for immediate treatment say for a broken leg that is curative care. Rehabilitative care comprises services where the emphasis lies on improving the functional levels of the persons served and where the functional limitations are either due to a recent event of illness or injury or of a recurrent nature (regression or progression). Included are services delivered to persons where the onset of disease or

impairment to be treated occurred further in the past or has not been subject to prior rehabilitation services. So, after the person is in a car accident, they receive treatment at the hospital for their leg, they are given a cast and are released, but still need further treatment once their leg is healed they would go to a facility to have rehab to further improve their motor function skills, this could be something such as physical therapy. Part of the reason the United States expenditure is much higher than Switzerland and Denmark is they do not have data for Ancillary services but the expenditure still needs to add up to 100 or 0. So it's not that the United States doesn't spend more on Curative or Rehabilitative care, it is just that by missing certain data the expenditure is allocated to different key functions. This can be seen throughout the entire chart with the United States having higher percentages in different key functions. It is hard to compare these three countries due to this fact, it would be more reasonable to compare the data from Denmark and Switzerland. It would be interesting to see Curative and Rehabilitative care separate. I believe the expenditure for Curative care would be much higher than Rehabilitative care in the US due to the fact that many individuals in the US will avoid treatment until it is an emergency because the cost of medical treatment is so expensive or because they do not have health insurance.

Long-term care is another outlier when comparing the three Countries. Again it is difficult to compare the United States with the other two countries due to some data being missing, however with that being said the expenditure on long-term is extremely low when you compare. The USA long-term care population includes older people, people with physical and mental disabilities and people with chronic diseases. In the USA you need to have Medicare or Medicaid to receive services from the government that can provide you with some long-term services, but you may still have some out-of-pocket payment, but if you have private or no health insurance there is no coverage or it's extremely costly. Many people do not seek long-term care or have informal long-term care that may not be recorded care due the out of pocket expense. Switzerland on the other hand has their long-term care broken down like so, MHI (mandatory health insurance) covers parts of medical long-term care costs, when prescribed by a physician and after needs assessment, independently of whether it is provided at a nursing home or by home care (Spitex services) (Mösle, 2010). The contribution of MHI for care in nursing homes depends on the level of need determined during the needs assessment and (does not necessarily cover total costs), while the amount covered for Spitex services depends on the type and duration of provided care, but Swiss citizens tend to receive more coverage and unlike Medicaid or Medicare you do not have qualify based off your income, or age but based off the patients needs. Lastly, Denmark has the highest expenditure at 24.9% in terms of long-term care. Denmark's long-term care has various different types of facilities, from nursing homes, group homes and even small apartments in some cases. Long-term care is broken down like so, the caregiver or community nurse contacts the General practitioner (GP), who in turn visits the patient at home or at the social services office. Upon completion of the assessment, the physician refers the case to a social worker, whose job it is to ensure that the appropriate forms are completed (including a section completed by the family) and then to forward the forms to the social services authorities. In addition to facilitating the application process, the social worker provides information regarding fees for long-term care. If the patient is in hospital at the time of application, the family contacts the GP, who in turn contacts the appropriate professionals within the

hospital. The total cost of care depends on the types of service that a patient decides to use. It seems as though long-term is broken down for citizens to have easy access to services provided, but Contracting with private non-profit-making agencies is becoming increasingly common in an attempt to provide services that are more cost-effective. Privately contracted services include long-term inpatient care in nursing homes, care in day care centres and social services for chronically ill and/or older people. Some additional services, such as catering and cleaning, have been contracted out to private commercial firms. Both Denmark and Switzerland 's long-term care is more regulated and has more government involvement, meaning it is provided equally across the country, but in the USA long-term care can vary depending on your health insurance or if you have Medicare and Medicaid coverage and what state a person resides in, both the state and federal government is involved. Also, the quality of healthcare coverage plays a major role in receiving any benefits regarding long-term care. Also, all three nations did report informal long-term care. Denmark and Switzerland have but the U.S doesn't follow the healthcare model, their healthcare is a market.

FUNDING SOURCES

Finally, we have analyzed the key differences in the data regarding financing schemes that pay for the healthcare goods and services of each country in question. We have focused on the funding sources that are depicted in the table below.

Table 3

| Indicator | Year | US | Denmark | Switzerland |
|---|------|------|---------|-------------|
| Health Care Financing | | in % | in % | in % |
| Government/compulsory schemes | 2019 | 25.8 | 83.30 | 22.50 |
| Compulsory contributory health insurance schemes | 2019 | 56.8 | 0 | 44.30 |
| Voluntary health care payment schemes (see comment below) | 2019 | 6.0 | 2.50 | 7.00 |
| Household out-of-pocket payment | 2019 | 11.3 | 14.20 | 25.30 |
| Other | 2019 | 0.0 | 0.00 | 0.90 |

Some values are comparable, though not quite the same. For example, the values for “voluntary health care payment scheme”, which includes all domestic prepaid health care financing schemes under which the access to health services is at the discretion of private actors (A System of Health Accounts 2011), are relatively low, ranging from 2.5% to 7% for all analyzed countries. However, some percentages differ drastically, which is what we are going to focus on. The values with the most tangible divergences are highlighted in red. Firstly, let's look at the most outstanding difference in the data: while the “Compulsory contributory health insurance schemes” percentage, which “involves a financing

arrangement to ensure access to health care for specific population groups through mandatory participation and eligibility based on the payment of health insurance contributions by or on behalf of the individuals concerned” (A System of Health Accounts 2011) is similar in the US (56,6%) and Switzerland (44,3%), Denmark, on the other hand, has its’ value at 0%. That occurs because Denmark’s citizens are legally entitled to health care through universal coverage provided by the countries’ government and fully funded by taxation: personal income tax, property tax, corporate income tax etc. Healthcare is autonomous from payment and not dependent on membership in any type of insurance plan. Such practice is mandatory for residents, and they therefore cannot withdraw from the participation in healthcare taxation (Olejaz M Et. Al. 2012).

On the other hand, the healthcare providence in the US and in Switzerland is heavily reliant on monthly payment of premiums, to private companies or state providers, by the insured persons (Di Pietro C Et.Al. 2015). Those are highly competitive agents heavily controlled by the government that provide most general and specialist health services and function mostly through the aforementioned monthly payments (Wang, Bornhauser 2009). Health care providers in the United States are mostly paid by private insurance companies or government insurance programs, such as Medicare and Medicaid. Similarly to Switzerland, the Healthcare budget is profoundly reliant on monthly payments that those programs get their financing from (Rice T Et. Al. 2020).

To summarize this segment, we see such a drastic difference in “Compulsory contributory health insurance schemes” and “Government/compulsory schemes” percentiles because the Healthcare system in Denmark is not at all funded by the payment of premiums to government or private insurers, like in the US and Switzerland, where such schemes account to around half of overall Health Care Financing. On the contrary, Denmark does not rely on regular payments through insurance companies, but funds its’ Health Care system mostly through taxation, which is why they are able to provide attendance to any resident without any ties to an insurance plan.

CONCLUSION

To conclude, we would like to review our findings and determine how effective the Health Care systems of the analyzed countries are. We were surprised to find out how outstanding the statistics are for the United States: spending more money on Health Care than any other nation worldwide, the US, compared to Switzerland and Denmark, still has the highest Infant Mortality Rate, Maternal Mortality Rate and overweight population, as well as lowest Life Expectancy and the lowest number of physicians per 1000 persons. This was particularly surprising because both Switzerland and the US have a Health Care system with heavy reliance on Compulsory contributory health insurance schemes. However, Switzerland has tremendously high satisfaction rates with its system, while the general satisfaction with the Health Care system is lowest in the US. We believe that this happens because Switzerland’s insurance companies are heavily controlled by the state, which is indicative of the Bismark Model, while insurers in America have great power and controlled very leniently, which is why they may take profit-

making over the well-being of the citizens. The US is quite unlike other countries, because it supports very different systems targeted towards different people, which also makes it hard to control, which is why we believe it has a Mixed Health Care Model. As for Denmark, we believe it is clear that the country uses the Beveridge model, because the system is universal and reliant almost solely on tax payments, which are then redistributed to fund the countries' Health Care system.

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Slovenia, Canada, and the US

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A well-developed healthcare system is the basis of a good functioning of any developed country and society, which should demonstrate solidarity, unity, and equity (Brown, 2003). Each country, however, over the years, has developed a different and own health system. In fact, each country allocates different amounts of money to the health system (i.e., health expenses and funding), as well as different health resources, utilization ... In this paper we will compare different indicators and data from three different states: Canada, Slovenia, and the United States of America, with the aim of highlighting the major differences and understanding its reasons.

Introduction

First, the three analyzed countries are very different from each other, and this also results in the percentage of GDP allocated to healthcare. The USA, being the largest country among the three, has more expenses (16.7%), while Canada's health care expenditures as a share of GDP in 2018 (10.8%) exceeded those in Slovenia (8.3) for 2.5 percentage points (10.8-8.3%), which does not seem like a substantial difference, considering the big difference in population (the first has about 38 000 000 inhabitants, while the second around 2 000 000 - OECD, 2020). The fact that the U.S. incurs higher expenses, is due to the fact that typically, the costs for hospitals and doctors are higher, as is the cost of inpatient and outpatient care (Kurani and Cox, 2020). In addition, in America there are many problems related to conditions such as obesity, which then leads to other pathologies and diseases such as diabetes, osteoarthritis, cardiovascular diseases ... that need long-term care.

If we analyze the data of Health Care Resources and Utilization, and more specifically the number of hospitals per million population, we are able to see a considerable difference. The difference is between the USA and Canada, which in 2018 had respectively 18.81 and 19.29 hospitals per a million people, Slovenia in the same year recorded 13.98 hospitals per a million people. One reason for this difference could be the number of inhabitants, as Slovenia is a far smaller country, both in terms of inhabitants and area. At the same time, however, Slovenia has a higher number of beds per 1000 inhabitants (4.43), compared to Canada and the USA (respectively 2.55 and 2.83). There are no specific guidelines to determine the number of beds in hospitals, but among these we find demographic and epidemiological factors, efficiency, clinical specialty groups, and the average length of stay. Given that Slovenia in 2018 recorded an average of 7 days of stay at hospital, it makes sense that hospitals have more beds than in the United States where the average length of stay accounted for 5.5 days. Another indicator that has

substantial differences, is found in the number of visits to physicians that for Slovenia and Canada in 2011 was respectively 7 and 6.5 number of consultations per capita for doctors, while for the USA, only 4. This is mainly because, in Slovenia and Canada, visits are “free” or somehow covered by public health insurance for the most part, while in the USA, the majority of the visits are paid out-of-pocket and are based on private health insurance.

Table 1 Basic Data Comparison

| Indicator | Year | US | Canada | Slovenia |
|--|-------------|-----------|---------------|-----------------|
| 1. Health Expenditure and Financing | | | | |
| GDP per capita, PPPs | 2020 | 62940.9 | 48537.20 | 38 861.4 |
| Health care expenditure as % of GDP | 2018 | 16.8 | 10.8 | 8.3 |
| Per capita health care expenditure in PPPs | 2018 | 10 948.5 | 5330.8 | 3060.7 |
| GINI coefficient (disposable income, post taxes and transfers) | 2017 | 0.39 | 0.31 | 0.243 |
| 2. Health Care Resources and Utilization | | | | |
| # of physicians per 1000 population | 2019 | 2.64 | 2.74 (E) | 3.26 |
| # of hospitals per million population | 2018 | 18.81 | 19.29 | 13.98 |
| # of hospital beds per 1000 population | 2018 | 2.83 | 2.55 | 4.43 |
| # of days in hospital (average length of stay) | 2018 | 6.1 | 7.5 | 7 |
| # of visits to physician (- exclude dentists) | 2011 | 4 | 7 | 6.5 |
| 3. Health Status | | | | |
| Life Expectancy | 2020 | 77.3 (E) | 81.7 | 80.6 |
| Infant Mortality Rate | 2018 | 5.7 | 4.7 | 1.7 |
| Maternal Mortality Rate | 2007 | 12.7 | 6.5 | 15.1 |
| Body weight (self-reported) | 2019 | 32.6 | 21 | 19.4 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2019 | 10.9 | 10.3 | 17.4 |
| Alcohol consumption (liters per capita (15+)) | 2019 | 8.9 | 8 | 11.1 |

Studying the data on the health status of the three countries, we can see these all have on average a similar life expectancy, which is around 80 years. The biggest differences are however found in the infant and maternal mortality rate. The infant mortality rate is much lower in Slovenia, compared to Canada and the USA (which records the highest number and this mainly due to the lack of parental leave policies (Texas A&M University, 2016) and because most of the expenses for visits that need to be done during pregnancy are paid out-of-pocket and not everyone can afford them (Khazan, 2020)). As for the maternal mortality rate, in 2007 (the last year we have data for all three states), Slovenia had the highest indicator (15.7), the US followed with 12.7, while Canada had the lowest data of 6.5 deaths per 100 000 live births. However, it must be said that Slovenian numbers have greatly decreased over the

years. In fact, in 2020 there were 0 deaths per 100,000 births. Slovenian and Canadian numbers are lower, as all the visits and check-ups future mothers must undertake, are mostly provided by the public health system. This means that the problems that arise during the pregnancies can be detected and solved as soon as possible.

Tobacco consumption, as opposed to alcohol consumption, which is similar between the three countries, sees Slovenia as the country in which 17.4% of the population over 15 smokes daily (in 2019), while in Canada and the USA it is around 10-11%. This could be due to two main factors. The first, is the low cost of cigarette packs in Slovenia (where a pack of 20 cigarettes costs \$4.75), compared to the much higher costs in Canada (\$11.67) and the US (\$8.00) (NUMBEO, 2021). The second factor could be the aggressive anti-smoking campaigns conducted both in Canada and in the USA that have lasted for many more years, compared to the last-years campaigns in Slovenia (Pechamann and Reibling, 2000). As for body weight and the obese population, based on self-reported data, in the USA in 2019, 32.6% of the population was obese, while 21% and 19.4% were obese in Canada and Slovenia respectively. What influences high obesity in the USA is first food (large portions, processed, with high sugar (PublicHealth, 2021)), but also food insecurities, high income disparities (USA has a higher GINI coefficient than Canada and Slovenia), higher poverty and discrimination (Farberman and Kelley, n.d.).

Health expenditures according to key functions

In the U.S, 70% of the health expenditure goes to curative and rehabilitative care. This is a significant amount and is way higher of a percentage than in Slovenia and Canada. This means services such as physical therapy, speech therapy, etc are essential to the U. S's expenditure. I was dumbfounded to see how much Canada spends on long term care. When talking about long term care in the U.S, it usually refers to medicaid and medicare. The long-term care in the U.S gets paid for by private and public sources. Canada was significantly more than the U.S, which made me believe it is because of the life expectancy rates between the two countries. In the U.S, the expenditure on medical goods in percentages was way higher than both Canada and Slovenia. Governance and Health systems and Financial Administration in Canada was more than both the U.S and Slovenia, because most of the data was unretrievable.

Table 2 Key Functions and Health Care Expenditures

| Indicator | Year | US | Canada | Slovenia | US | Canada | Slovenia |
|---|------------|--------------------------------------|--------------------------------------|--------------------------------------|---------|--------|----------|
| Health Care Expenditure | | in current prices (in USD, millions) | in current prices (in CAD, millions) | in current prices (in EUR, millions) | in % | in % | in % |
| 100 | 100 | 100 | | | | | |
| Current expenditure on health (CP) | 2019 | 3 593 722 | 250585 | 4125 | 100 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 2 517 142 | 120266 | 2403 | 70 | 47.99% | 58.3% |
| Long-term care | 2019 | 172 654 | 46 315 | 421 | 4,8 | 18.48% | 10.2% |
| Ancillary Services | 2019 | No data | 8 694 | 138 | No data | 3.47% | 3.3% |
| Medical Goods | 2019 | 509 318 | 47 530 | 875 | 14,2 | 18.97% | 21.2% |
| Preventive Care | 2019 | 105 718 | 15 566 | 131 | 2,9 | 6.21% | 3.2% |
| Governance and Health System and Financial Administration | 2019 | 2888 888 | 7 600 | 157 | 8 | 3.03% | 3.8% |
| Other Health Care Services | 2019 | No data | 4 614 | No data for Slovenia | / | 1.84% | / |

The Ancillary services in Slovenia and Canada are almost around the same, being at 3.47% and 3.3%. This meant services such as ambulance services and behavioral health services. I feel as though they are around the same percentage because they are seemingly very close in the rate of success in patients when dealing with physicians. In the U.S, there are also out of pocket costs. The expenditures in out-of-pocket costs, include deductibles, copayments, and etc. These are paid for by the patient, depending on the premium you select. In Slovenia, state healthcare is not completely free. Healthcare costs are covered by both the state and through patient contributions. These are their co-payments. It pays into the Slovenian national health insurance system.

Funding sources

The different health care systems in place in Canada, Slovenia and the US reveal profound differences in their funding structures and user options. To analyze these similarities and differences we first must compare countries' structure and go deeper into health expenditure, and then comment on the funding allocations. It is also important to remember the vast difference of size that the comparing countries have to each other (both in area and in population) that will allow the number discrepancies to make

much more sense to the reader.

In Canada, the public sector is responsible for about 70% of total health expenditures, which is relatively low for high-income countries. Almost all funding for Canada's public health spending comes from federal, provincial, and territorial tax revenues. These tax revenues fund a universal "Medicare" in which Canadian residents' access necessary hospital, diagnostic, physician/primary care, and some surgical-dental services without paying individual user fees for each service. The remaining tax revenue allocated to public health is used to subsidize other health care costs, such as long-term care and prescription drugs. Canada's provinces and territories raise most of their funding independently; however, they are also given an annual cash transfer (less than a quarter of their total health financing) from the federal government, called the Canada Health Transfer (Marchildon et al., 2020).

In Canada, optional private health insurance is regulated, does not compete with the provincial and territorial "single payer" systems for Medicare, and instead insures users for coverage in non-Medicare private health sectors such as dental, prescription, rehab, and mental health. About two thirds of the population in Canada hold private health insurance. Although only a complement to universal Medicare for Canadian citizens (much like Slovenia), the costs of private health insurance are nominal given the high costs of, and low public coverage for necessities such as prescription drugs, and dental and vision care.

Table 3: Sources of Funding

| Indicator | Year | US | Canada | Slovenia |
|---|-------------|-------------|---------------|-----------------|
| Health Care Financing | | in % | in % | in % |
| Government/compulsory schemes | 2019 | 25.8 | 68.7 | 4.2 |
| Compulsory contributory health insurance schemes | 2019 | 56.8 | 1.4 | 68.6 |
| Voluntary health care payment schemes (see comment below) | 2019 | 6.0 | 13.0 | 14.3 |
| Household out-of-pocket payment | 2019 | 11.3 | 14.9 | 11.7 |
| Other | | 0.1 | 2 | 1.2 |

According to the 2019 (Table 3) comparing funding schemes for each type of financed health care, Canada had the largest number for Out of Pocket (OOP) payments and makes up under 50% of expenditures on privately financed health services. Most OOP expenditures are for dental, prescriptions, and insurance premiums, respectively. Where dental and prescriptions are self-explained, insurance premium costs are different to those of Slovenia, where the premium is not set based on income, but rather a flat charge (Government of Canada, 2015).

In Slovenia, like Canada, public financing is the primary source of the health expenditures at around 72.8%. Every permanent resident in Slovenia is entitled to health benefits defined in the *Health Care and Health Insurance Act* (Alberht et al., 2021). Slovenia's public health coverage is similar to Canada's,

but with better described maximum and minimum coverage amount for certain services such as “a minimum of 80% of the cost for sterilization and abortion” and a maximum of “25% of the cost of pharmaceuticals” (Alberht et al., 2021), the remaining amount is covered by optional complementary health insurance purchased by individuals to cover the cost of the co-payment.

Slovenia’s health care is funded by a combination of social health insurance contributions and general tax revenue, and privately by voluntary health insurance (complementary and supplementary), and OOP spending. Slovenians’ contributions for social health insurance are levied according to gross income. Employees pay 6.36% of their gross income, and employers pay 6.56%. These taxes cover the costs of capital investments and national public health programs such as health promotion and disease prevention programs and ensuring well-equipped public health laboratories (Petrič & Maresso, 2018). In Slovenia, the regional government budget was the source of financing for pandemic related measures during COVID-19, but municipal health care is usually sourced from local taxes and regional government resources which fund public health centers and pharmacies within the territory (Alberht et al., 2021). Slovenia’s household OOP is lower than the average European country and had a total of 11.7% of CHE in 2019 (table).

The United States (US) has a mixed model of healthcare financing, different from both Canada and Slovenia. The United States’ public sector only constitutes 48% of health-care expenditures. 40% is sourced from private third parties, and 12% is out-of-pocket (Rice et al., 2020). In the US, about one in ten citizens are uninsured, and even among those with coverage, high out-of-pocket costs can be a barrier to receiving needed care and medicine. Unlike Canada and Slovenia, only a minority of the US population is covered by the public financing system. Seniors and the disabled are eligible for a program called Medicare, and a program called Medicaid funds medical services for the lowest income US residents. Many US residents receive their coverage from private health insurance, usually provided by an employer (Rice et al., 2020). Although the percentage of public sector spending from the US seems relatively smaller compared to those of Slovenia and Canada, about “half of each dollar in the US is paid for by the government” (Rice et al., 2020) - a surprisingly large figure of public funding for a country we think utilizes a largely private healthcare system. Employers contribute through corporate taxes and paying all or part of employees’ health insurance premiums. Employees and individuals contribute through payroll taxes, income taxes and tax revenues from residential home sales and property taxes which vary largely from State to State. Most US residents either have employer-sponsored coverage themselves or through a family member. Individuals without an entry mode into employer-sponsored insurance, and those who are not eligible for Medicare and Medicaid, seek coverage individually. Since 2010, The Affordable Care Act (ACA, or Obamacare) (HealthCare.gov, n.d) has supported affordable health insurance by significantly subsidizing premiums for individual medical coverage with public/government funding. Similarly, to both Canada and Slovenia, 11.3% (table) of healthcare funding in the US was OOP.

Conclusion

Canada's universal publicly funded health-care system known as Medicare, uses the National Health Insurance national model (Vera Whole Health, 2020). This system allows Canadian citizens equitable access to physician and hospital services through provincial and territorial tax-funded public insurance plans.

Slovenia follows Bismarck's model. In this model the worker has the right to health insurance, thanks to the contributions paid. So, the health care system is publicly funded by taxes paid by employers and employees. The aim is to include everyone and not to profit from it. At the same time, however, in addition to public insurance there is the private one, which on the other hand is not mandatory (Wallace, 2013).

US Typology: The national health insurance model/The out-of-pocket model

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Slovenia, Austria, and the US

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Introduction

Our team consists of members Emir, Ksenija and Dion and we are from Slovenia, Serbia, and United States, accordingly. Since Serbia is not in OECD health expenditures database, we had to do analysis on Austria instead. We will look at the most interesting figures and trends for each country and give them a backstory or explanation. Each group member will pick 2-3 figures per data table and our contributions will be color-coded, and since we want to go easy on your eyes, we will just colour in one word (name of a country) per paragraph and that should indicate the author of the paragraph (see Team Contract for colour code).

Figure 1: Health expenditures and financing

| Indicator | Year | US | SLOVENIA | AUSTRIA |
|---|------|-----------|----------------------|-----------|
| <i>1. Health Expenditure and Financing</i> | | | | |
| GDP per capita, PPPs | 2020 | 58,385.48 | 34,103.94 | 49,006.85 |
| Health care expenditure as % of GDP | 2019 | 16.80 | 8.5 | 10.4 |
| Per capita health care expenditure in PPPs | 2019 | 10,948.00 | 3,303.50 | 5,040.17 |
| GINI coefficient (disposable income, post taxes and transfers) | 2016 | 0.41 | 0.248 | 0.284 |
| <i>2. Health Care Resources and Utilization</i> | | | | |
| # of physicians per 1000 population | 2019 | 2.64 | 3.26 | 5.3 |
| # of hospitals per million population | 2018 | 18.81 | 13.98 | / |
| # of hospital beds per 1000 population | 2018 | 2.83 | 4.43 | 7.2 |
| # of days in hospital (average length of stay) | 2018 | 5.5 | 6.7 | 6.3 |
| # of visits to physician (number of consultations per capita for doctors only - exclude dentists) | 2019 | 4 (2011) | 6.7 | 6.6 |
| <i>3. Health Status</i> | | | | |
| Life Expectancy | 2019 | 78.9 | 81.6 | 79.7 |
| Infant Mortality Rate | 2018 | 5.7 | 1.7 | 2.9 |
| Maternal Mortality Rate | 2018 | 17.4 | 0 | / |
| Body weight (obese population, measured, % of total population) | 2019 | 42.8 | 56.5 (self-reported) | 51.1 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2019 | 10.9 | 17.4 | 20.6 |
| Alcohol consumption (litres per capita (15+)) | 2019 | 8.9 | 11.1 | 12.2 |

Source: <https://stats.oecd.org/Index.aspx>

First, let's analyse some key figures and differences for United States. The U.S. health system stands out with its high healthcare expenditures. The price of medical care is the biggest factor behind healthcare costs, being responsible for 90% of spending. This shows the cost of taking care of people with chronic medical conditions, increased cost of new medicines, and procedures and technology. Along with high healthcare spending we also have a high infant and maternal mortality rate. Women in the US are more than four times likely to die due to complications from childbirth than women in comparable countries. On the bright side the US has low tobacco consumption compared to the other countries. This is probably because of the legalization of marijuana which a lot of people use as a substitute.

Secondly, we look at Slovenia's figures. The two figures that really stand out are Infant mortality rate

(1,7 per 1000 births) and Maternal Mortality rate (0 per 100,000 live births). We are one of the leading countries in that regard. The reason behind is that we have regular free check-ups during the period of pregnancy and even after birth, the mother is visited at home by the expert(s) to check on some key health indicators. Safety of moms is important for country since it kind of gives incentive to more births, which is desirable since fertility is falling in developed countries. Even though our care expenditures per capita (PPP), for example, is substantially lower than US, we are doing a lot better in those regards (however, we have shown in classes that HE exp. P.c. is not correlated with infant mortality). Another important point must be addressed, which is the fact that in Slovenia we only have around 20 thousand livebirths per year, and the Maternal Mortality units of measure is per 100.000 livebirths, so the value "0" is also a consequence of very small sample size, hence the death of a new-born's mother is relatively rare event.

Lastly, we will explain some figures for Austria. Austria's health system stands out with its health care resources capacity. Its leading country in terms of number of beds and physicians per 1000 population. Health care is something Austria invested in, so this country provides their citizens with comfortable health care at any time. Despite good health care capacity, there is negative side of this country too. Alcohol and tobacco consumption is higher than in Slovenia and US. This is also affected by fast life tempo and tradition this country has (there is a high consumption of beer in Germanic countries). Number of daily smokers is almost double compared to US. Law regulations also contributed to those numbers since they are different in US and Europe.

Health expenditures according to key functions

Figure 2: Health care expenditure

| Indicator | Year | US | SLOVENIA | AUSTRIA | US | SLOVENIA | AUSTRIA |
|---|------|---------------------------|--------------------------|--------------------------|--------|----------|---------|
| Health Care Expenditure | | in current prices (in \$) | in current prices (in €) | in current prices (in €) | in % | in % | in % |
| Current expenditure on health (current prices) | 2019 | 3593722049000 | 4124915000 | 41483129000 | 100 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 2517142800000 | 2402900000 | 24698100000 | 70.04% | 58.25% | 59.54% |
| Long-term care | 2019 | 172654520000 | 421058000 | 5975698000 | 4.80% | 10.21% | 14.41% |
| Ancillary Services | 2019 | / | 138044000 | 1251258000 | / | 3.35% | 3.02% |
| Medical Goods | 2019 | 509318114000 | 874526000 | 7007851000 | 14.17% | 21.20% | 16.89% |
| Preventive Care | 2019 | 105718532000 | 131332000 | 869328000 | 2.94% | 3.18% | 2.10% |
| Governance and Health System and Financial Administration | 2019 | 288888039000 | 157024000 | 1680853000 | 8.04% | 3.81% | 4.05% |
| Other Health Care Services | | / | / | / | / | / | / |

Source: <https://stats.oecd.org/Index.aspx>

The United States cost for long-term care and curative and rehabilitative care is very high compared to the other countries. This is because Americans are having fewer children and are living longer. Chronic medical conditions such as dementia, diabetes, cancer etc require ongoing medical attention. Fewer children mean less family care givers. Most people are not saving enough to pay for long-term care. Regarding ancillary services they are not actually zero, rather than that, they use different methodology and include expenditures for ancillary services under the category curative and rehabilitative care.

We note that Slovenia spends relatively high portion of its budget for health on medical goods. Slovenia regulates pharmacy drugs prices in a manner that we look at prices of selected good in other countries and we control for wages etc. and pick the lowest price. This goes against the numbers, and expenditures for medical goods are increasing in recent years. Part of explanation is that Slovenia has low expenditures for labour, so medical goods account for bigger part of the budget spent. Since basically everyone is compulsory insured, we rarely pay for pharmaceuticals, so we don't feel the budget constraint, which results in "over-healing" ourselves and consequently higher expenditures on medical goods. When there are no costs, we are not efficient, as we don't have any incentive (financial) to do so. Another interesting figure are expenditures for governance and financial administration. Experts thought that it is not that important, but we had a big administration problem during COVID-19 outbreak that resulted in over-financing specialized teams and rooms for treating COVID-19 patients. It is also the first thing that we cut on if the budget gets tight (as it did during pandemic), but incident

mentioned above should make decision-makers reconsider next time.

Austria has low preventive care expenditures which obviously results in higher long-term, rehabilitative, and curative care expenditures. There should be balance between those expenditures and focus of patients and physicians. People often don't care about their health until its ruined which negatively affects people lives but also economic situation in health funds of the country. It's easier and cheaper to prevent all diseases that are preventable then taking care of them when they already occur.

Funding sources

Figure 3: Health care financing

| Indicator | Year | US in % | SLOVENIA in % | AUSTRIA in % |
|---|------|------------|------------------|-----------------|
| Health Care Financing | | | | |
| Government/compulsory schemes | 2019 | 25.8 | 4.2 | 30.5 |
| Compulsory contributory health insurance schemes | 2019 | 56.8 | 68.6 | 44.7 |
| Voluntary health care payment schemes (see comment below) | 2019 | 6.0 | 14.3 | 5.2 |
| Household out-of-pocket payment | 2019 | 11.3 | 11.7 | 17.7 |
| Other | 2019 | 0.1 | 1.2 | 1.9 |

Source: <https://stats.oecd.org/Index.aspx>

In the United States there are three main funding sources for healthcare. The government, private health insurers and individuals. The government programs are Medicare and Medicaid. Medicare is a program of health insurance designed to help the elderly to meet hospital, medical, and other health costs. This is usually available to people 65 and older. Medicaid provides healthcare coverage to low-income families and individuals in the United States. Private health insurance are usually employer-sponsored plans, which cover half of the American population. For example, I'm under my mother's insurance which is Emblem Health. Lastly is out-of-pocket which is the cost of medical care that isn't not covered by insurance.

In Slovenia, the big majority of health care financing comes out of compulsory health insurance schemes. As mentioned before, health insurance in Slovenia is mandatory and payment for such services comes out of wages each month. Compulsory insurance covers around 80% of individual's medical costs, so majority of people also choose voluntary health care insurance as well, which covers the remaining 20% of individuals medical costs. As seen in table, our budget is mainly financed by insurance schemes, instead of via government.

What we noticed about Austria are a lot higher government schemes compared to two other countries

and higher out of pocket payments. First thought would be that there is high difference in health care of richer people and people to have lower income, but that is not true. Austria has special health care support programs for people with lower incomes, so everyone's health needs are met. Austria is one of the EU countries with lowest level of unmet medical needs. Exception is dental care which doesn't have same treatment as other health procedures, so patients need to give high amounts of money for dentist visits and interventions.

Conclusion

Throughout semester we learned more and more on how health system around the world differs from country to country. In our case, we noticed that Austria and Slovenia are quite similar in that regard since they are both part of European Union where solidarity is of key importance. Both countries are based on Germany's Bismarck's model with unique adaptations and differences, for example, Austrian health care budget is financed by government schemes way more than Slovenian budget. United States' numbers are quite similar as Austria's, but they have unique system with Medicaid and Medicare. Austria has the best health facilities and infrastructure out of the three, United States is the best in low tobacco and alcohol consumption, while Slovenia is leading in low Infant and Maternal Mortality rate. As for health expenditures according to key functions, Austria and Slovenia are very similar, meanwhile United States differs much more, for example, they value Governance and Financial Administration way more than European countries.

The UK, Portugal, and The US

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Basic Data Comparison

For all the assignments in the Health Economics, our team was comparing differences between Portugal, the United Kingdom, and the United States. For the assignments, we reviewed the OECD Statistics database. The first one related to the health care expenditure, resources, and health status.

Table 1: Health expenditures and Financing, Health Care Resources and Health Status for UK, US, and Portugal.

| Indicator | Year | US | UK | Portugal |
|--|------|---------|--------|----------------------|
| <i>1. Health Expenditure and Financing</i> | | | | |
| GDP per capita, PPPs | 2020 | 62940.0 | 43882 | 34246.7 |
| Health care expenditure as % of GDP | 2019 | 16.8 | 10.2 | 9.5 |
| Per capita health care expenditure in PPPs | 2019 | 10948.5 | 4500.1 | 3347.4 |
| GINI coefficient (disposable income, post taxes and transfers) | 2017 | 0.39 | 0.357 | 0.32 |
| <i>2. Health Care Resources and Utilization</i> | | | | |
| # of physicians per 1000 population | 2017 | 2.61 | 2.81 | no data for 20 years |
| # of hospitals per million population | 2018 | 18.81 | 28.75 | 22.37 |
| # of hospital beds per 1000 population | 2018 | 2.83 | 2.5 | 3.44 |
| # of days in hospital (average length of stay) | 2018 | 6.10 | 6.70 | 9.10 |
| # of vists to physician (number of consultations per capita for doctors only – exclude dentists) | 2009 | 4.10 | 5.00 | 4.00 |
| <i>3. Health Status</i> | | | | |
| Life Expectancy | 2020 | 77.3 | 80.4 | 81.1 |
| Infant Mortality Rate | 2018 | 5.7 | 3.9 | 3.3 |
| Maternal Mortality Rate | 2007 | 12.7 | 7.1 | 4.9 |
| Body weight (obese population, measured, % of total population) | 2015 | 42.8 | 28 | 28.7 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2019 | 10.9 | 15.8 | 14.2 |
| Alcohol consumption (liters per capita (15+)) | 2019 | 8.9 | 9.7 | 10.4 |

Source: Teamwork based on the data gathered from <https://www.oecd.org/els/health-systems/health-data.htm>

Very common thing, even from elementary school and first touch with these indicators, is to compare

big differences in GDP numbers around the countries, through years. The GDP is the standard measure of the value added created with production of goods and services in one country in a given period (frequently one year). It is usually expressed as GDP per capita, so divided with number of citizens, for easier comparison between various countries round the world. (OECD, 2021) In the table, there is big difference in the GDP per capita between the United States on one side and the United Kingdom and Portugal on the other side. This was expected because the United States are marked as the world's largest economy. Forecasted GDP for the United States is almost 25.3 trillion USD by 2024, which is big difference that has to be made in next 2 years, because in 2020, it accounted for 20.9 trillion USD. (Reynolds, 2021)

On the other hand, the health care expenditure as a % of the GDP is much higher in the United States than in the other two observed countries. Wealthy countries, including the United States, tend to spend more on health care and related expenses than lower-income countries. Anyhow, nor Portugal nor the United Kingdom are undeveloped or low-income countries, but still, they are spending almost half as much as the United States do. Comparing any of the data in the tables through Health Economics course was hard because each country has its own political, social and economic attributes that each individually contribute to the country's spending system.

Furthermore, when we speak about health care resources and utilization, we must mention physicians. In the table, we changed the variable to license to practice physicians per 1000 population, because there was less available data for number of consultations per capita, for doctors only. Last available year for all three countries was 2009, so when we have changed the variable, the last year was 2019, as in Table 1. Also, the number of physicians per 1000 population was not available for Portugal for a very long time in past. Anyhow, the other source provided this information for 2017, and it claims that number of physicians (per 1000 population) is 5.13 in Portugal, which compared to OECD data is higher for almost 2 percentage points compared to the United States and the United Kingdom. However, we decided not to consider this number, as results are not coming from the same database and as the OECD database is much more reliable. (The World Bank, 2021)

What also may be a bit suspicious is the maternal mortality rate data. Firstly, we have observed the differences in year 2009, because this is the last common year for given countries. Instead, we took 2018 as an anchor for the United States and Portugal, and the United Kingdom is left with the data from 2017. If done otherwise, the data from 2009 would be very old. Generally, maternal mortality rate is the number of deaths due to complications from the pregnancy or the actual childbirth. If births are regularly checked and controlled by health workers, women may be gone to emergency care when diagnosed with any complications. The causes of maternal deaths are mostly preventable, and may include abortion, embolism, hypertension, sepsis and mostly, hemorrhage (accounting for quarter of reported death cases). (WHO, 2019)

Finally, one more change was made to the body weight. To avoid reporting very old data, we changed the variable from measured to reported, expressed as obese population % of total population. This way, we got pretty much similar numbers for all three countries. Even though countries with highest obesity levels in the world (more than 50%) have much higher indicators than our three observed countries, the numbers are expected to be increased especially after the COVID - 19 pandemics. On the other hand,

the United States are 10th unhealthiest country in the world, even though their obesity levels are not the highest. Over half of Americans are affected by obesity related diseases. Additionally, the obesity is one of the leading causes of preventable deaths in the United States. (Centers for Disease Control and Prevention, 2021)

Health expenditures according to key functions

In this subchapter, we will compare the structure of health expenditures according to key functions between Portugal, United Kingdom and United States. For comparison, we will not use the data in current prices, but the share of different functions.

Table 2: Key functions and health care expenditures for UK, US, and Portugal

| Indicator | Year | US | UK | Portugal | US | UK | Portugal |
|---|------|------------------------------|-----------------------------|-----------------------------|-------------------|-------|----------|
| Health Care Expenditure | | in current prices (in \$) | in current prices (in £) | in current prices (in €) | in % | in % | in % |
| Current expenditure on health (current prices) | 2019 | 3593722 | 225195 | 20392 | 100 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 581715 | 50756 | 3538 | 16.19 | 22.54 | 17.35 |
| Long-term care | 2019 | 172654 | 40115 | 977 | 4.80 | 17.81 | 4.79 |
| Ancillary Services | 2019 | no data available | 4,244.20 | 1,518.10 | no data available | 1.90 | 7.40 |
| Medical Goods | 2019 | 509318, 1 | 31 690.0 | 3 902.1 | 14.20 | 14.10 | 19.10 |
| Preventive Care | 2019 | 105,718.50 | 10,750.50 | 363.2 | 2.90 | 4.80 | 1.80 |
| Governance and Health System and Financial Administration | 2019 | 288,888.00 | 4,191.20 | 390.4 | 8.04% | 1.86% | 1.91% |
| Other Health Care Services | 2019 | no data available | 3054.1 | 17.4 | no data available | 1.36% | 0.09% |

Source: Teamwork based on the data gathered from <https://www.oecd.org/els/health-systems/health-data.htm>

From the table we can observe that in 2019 the expenditures on Long-term care represented a notably larger share for UK (17,8%) compared to US (4,8%) and Portugal (4,8%). Long-term health care involves in-progress health and nursing care provided to in-patients who need a constant assistance due to chronic impairments and a lower degree of independence (OECD, 2013). Notably, in 2019, the Portuguese Parliament has approved a new Health Basic Law (HSPM, 2019a). According to the previous 1990 Health Basic Law, the National Health Service was given the same importance than the private

and social sector providers (HSPM, 2019b). The new implemented law anticipated support for the development of the private health sector in competition with the public sector (HSPM, 2019c). Since we have selected all financing schemes from all providers to get the data for Table 1, we see a connection between the implementation of new law and such indicators. In addition, long-term care share of expenditure on health was lower (3,3%) in 2010 when the previous law was in action (OECD, 2021a). In the future, because of the implementation of the new law, we assume that a share of expenditures on Long-term care will increase in Portugal.

Also in 2019, the expenditures on Governance and Health Systems and Financial Administration represented a significantly larger share for US (8%) compared to UK (1,9%) and Portugal (1,9%). Interestingly, for Portugal this indicator was rather stable since 2010 and experienced the highest change of 0,1%, while for UK it has declined since 2013 (2,3%) (OECD, 2021b). In 2019, UK has experienced many changes in the National Health System, we assume that this may be one of the reasons for such indicators (NHS). The Welsh Government executed the establishment of a new and distinct NHS Executive, it followed the OECD 2016 key findings “In Wales, a stronger central guiding hand is now needed to play a more prescriptive role” (OECD, 2016). In addition, from 2019 it was confirmed that NHS Improvement in UK would be guided by the Chief Executive of NHS England, and control under the payers will also be under their disposal in future (HSPM, 2019).

Funding Sources

For the following section health care financing was observed and compared between the United States, United Kingdom, and Portugal by using specific indicators. The data was measured in shares of current expenditure on health. Voluntary health insurance schemes were used in the UK and Portugal but because no data could be produced for the US, voluntary health care payment schemes were only used for the US instead.

Table 3: Health Care Financing for UK, US, and Portugal.

| Indicator | Year | US | UK | Portugal |
|---|------|------|--------------------------|----------|
| Health Care Financing | | in % | in % | in % |
| Government/compulsory schemes | 2019 | 25.8 | 78.5 | 58.6 |
| Compulsory contributory health insurance schemes | 2019 | 56.8 | no data available for UK | 2.4 |
| Voluntary health care payment schemes (see comment below) | 2019 | 6,0 | 2,8 | 7,7 |
| Household out-of-pocket payment | 2019 | 11,3 | 15,9 | 30,5 |
| Other | 2019 | 0.1 | 2.8 | 0.8 |

Source: Teamwork based on the data gathered from <https://www.oecd.org/els/health-systems/health-data.htm>

One of the biggest discrepancies that can be observed from the table are the values obtained for household out-of-pocket payment, as Portugal contains the largest share in this category, being at 30.5%, whereas the United States and United Kingdom have shares which are 11.3% and 15.9% respectively. Household out-of-pocket payment encompasses cost-sharing, self-medication, as well as a plethora of other expenditures and it's paid directly by private households, regardless of whether the contact with the health care system was established on referral or the patient's own initiative (Out-of-Pocket Expenditure by Households on Health). Following the trend of out-of-pocket expenditure as a percentage of current health for Portugal, this result was to be expected because Portugal has been trending up in this category since 2013 (The World Bank Portugal). Similarly, the United Kingdom has also been trending upward in this category since 2015 and the United States has been decreasing expenditure in terms of the percentage of health care on this category as per data reviewed from the world bank. Although as a percentage of health expenditure out-of-pocket costs have decreased, real out-of-pocket costs in terms of per capita costs have increased. According to OCED data out-of-pocket payments in the United States, in terms of per capita costs the United States ranks second after Switzerland among OCED nations in out-of-pocket spending. In terms of compulsory scheme, the United Kingdom had the largest share of 78.5%, while the United States and Portugal had shares that were 25.8% and 58.6%. The United Kingdom and Portugal contribute significantly more shares to their compulsory schemes, than the United States, but in terms of compulsory health care insurance schemes, the United States has shares that are 56.8%, while Portugal has shares that are 2.4%. No data was available for the United Kingdom possibly because of the of the 4 million people with private medical insurance in 2011, about 18% purchased it as individuals, with the remaining 82% having employer-based private medical insurance (WHO Compare).

Conclusion

Portugal, the United Kingdom, and the United States are all OCED nations and therefore many of the policies regarding health economics are some of the worlds most economically sophisticated. Although they are some of the most sophisticated, these nations have several differences that can be contributed to their specific healthcare models. For instance, the United Kingdoms and Portugal's health care system would be considered beverage models because they both have national health services. The beverage model is the government pays for all medical billing and services, while also controlling what in-network providers can and cannot do. There are no out-of-pocket fees for patients funded by taxes and all tax paying citizen is covered under this system (Global Healthcare). The United States on the other hand is quite complex because it contains many different qualities of all the models. For example, Medicare is considered Nation Health Insurance because it is government funded and the providers are private. Military medical care is closely related to the Beverage model because the government is the single payor for this. Employer sponsored insurance in the United States closely relates to the Bismarck model because employers provide insurance, and the costs are shared between the employer and employee. Finally, people who are uninsured or who are underinsured are related to the out-of-pocket model because if you are unemployed in the United States, you must cover all your medical expenses directly (Global Healthcare).

The United States is the world's largest economy with a GDP of approximately 21.43 trillion US dollars (The World Bank). The United States has also increased its spending on National Healthcare Expenditure resulting in the sector contributing to approximately 18% of the nation's entire GDP, while other industrialized nations in comparison spend significantly less of their total GDP on the health care sector, with the United Kingdom and Portugal spending approximately 10.2% and 9.5% respectively. However, spending a lot on National Healthcare does not always equate to a better standard of living as the United States has the lowest life expectancy between both the United Kingdom and Portugal, while also having the highest infant mortality rate. National Healthcare Expenditure as a percent of GDP is not the most appropriate method of studying a nations health sector as other influences such as government and politics play a huge role in these decision-making processes.

Table 4: Sources of Funding for UK, US, and Portugal. Source: Teamwork based on the data gathered from <https://www.oecd.org/els/health-systems/health-data.htm>

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Canada, Germany, and the US

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Introduction

Health care systems differ from country to country. Each country has unique factors and different expenditures. In this paper, the different health care systems of Germany, Canada, and the United States of America (USA/US) are compared and analyzed in depth.

When looking at 'Health Expenditure and Financing' (*Figure 1*) there are no extraordinary differences between the countries. In general, the US has the highest GDP of the observed countries while also having the highest expenditures. However, if one observes the data for 'Health Care and Utilization' (*Figure 1*), one will find some indicators that differ greatly between countries. While having a lower GDP than the US and similar to Canada, Germany has a way higher utilization than the other countries. While the number of physicians per thousand and million is similar for the US and Canada, Germany nearly doubles both countries in both measures. Furthermore, Germany not only has more physicians but also visits them more regularly as they have more than double the numbers of consultations than the US and around 40% more visits than Canadians. A key factor for the difference in these indicators is the different health care systems. The German health care system is - generally speaking - "funded by a statutory contribution system [and] ensures free healthcare for all via health insurance funds" (Bundesärztekammer, 2021) This means that every German citizen has access to the health care they need explaining the more frequent visits, more demand, and more physicians per population density. On the other hand, Canadian and American health systems differ strongly. Especially in the US, access to healthcare is described as uneven from specialists, and "[h]ealth insurance [is] tied to employment" (Robert H. Shmerling (MD), 2021). This leads to over 40% of Americans admitting to trying to reduce their expenditures by not visiting a physician though necessary (NORC, 2018).

Figure 1: Basic Data Comparison

| Indicator | Indicator | US | Canada | Germany |
|---|----------------|--------|-----------|-----------|
| 1. Health Expenditure and Financing | | | | |
| GDP per capita, PPPs | 2020 | 62,941 | 48,537.20 | 53,804.20 |
| Health care expenditure as % of GDP | 2019 | 16.80 | 10.80 | 11.70 |
| Per capita health care expenditure in PPPs | 2019 | 10,948 | 5,370.40 | 6,518.00 |
| GINI coefficient (disposable income, post taxes, and transfers) | 2017 | 0.39 | 0.31 | 0.29 |
| 2. Health Care Resources and Utilization | | | | |
| # of physicians per 1000 population | 2019 | 2.64 | 2.74 | 4.39 |
| # of hospitals per million population | 2018 | 18.81 | 19.92 | 36.80 |
| # of hospital beds per 1000 population | 2018 | 2.83 | 2.55 | 7.98 |
| # of days in hospital (average length of stay) | 2018 | 5.5 | 8.00 | 8.90 |
| # of visits to physician (number of consultations per capita for doctors only - exclude dentists) | 2011 | 4.00 | 7.00 | 9.70 |
| 3. Health Status | | | | |
| Life Expectancy | 2019 | 81.4 | 82.10 | 81.40 |
| Infant Mortality Rate | 2018 | 5.7 | 4.70 | 3.20 |
| Maternal Mortality Rate | 2018 | 17.4 | 8.60 | 3.20 |
| Bodyweight (obese population, measured, % of total population) | 2019/2019/2012 | 42.8 | 24.30 | 23.60 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2017 | 10.5 | 12.00 | 18.80 |
| Alcohol consumption (liters per capita (15+)) | 2019 | 8.9 | 8.00 | 10.60 |

Note: Bodyweight variable: Germany only has data for 2012, while neither Canada nor the US has data for that year

Source: <https://stats.oecd.org/>

Considering 'Health Status' (Figure 1) there are also great disparities between the countries. While all have an even distribution in life expectancy there are key differences observing infant mortality rate and maternal mortality. While Germany has the lowest numbers out of the three countries, Canada's maternal mortality rate already doubles Germany's numbers. However, the US has a more than 500% higher maternal mortality rate than Germany making it a very extraordinary outlier in our basic data comparison. It indicates that the US health care system struggles with the birth-giving process itself and especially regarding maternal mortality. Reports and studies show that the US has one of the worst maternity care systems among developed countries. For instance, there are major shortages in

providing necessary maternity care. Other assistance, such as not guaranteeing home visits or postpartum parental leave, again shows the inferior aid of the U.S. health care system (The Commonwealth Fund, 2020). A report from Harvard Health shows that “60% of the maternal deaths could be prevented” and states that inequality across ethnicities is the main driver in maternal mortality (Isioma D. Okolo & Rose L. Molina (MD), 2020). This is mainly prevented in Germany as they have equal access to health care for everyone.

There is also a great disparity between the obesity rates of the three countries. However, as Germany only has data for 2012 available, while neither Canada nor the US has data for that year there is no sufficient analysis possible. A general factor for obesity can be knowledge and education about nutrition.

All in all, our basic data comparison shows two major outliers. Firstly, the German statutory health care system has a better utilization than the health care systems of Canada and the US as there are more physicians per capita and more consultation visits. Secondly, the exceptionally high maternal mortality rate in the US which highlights the failures of the US health care system in that regard. In terms of basic data, the German health care system seems to be the most sufficient one.

Health expenditures according to key functions

There are various key functions when looking at the health care expenditures of a country. The money spent on these expenditures varies drastically in the US when compared to Germany or Canada. Expenditures for health care include curative and rehabilitative care, long-term care, ancillary services, medical goods, preventive care, governance, and health system and financial aid, and other health care services (*Figure 2*).

Figure 2: Health Care Expenditures

| Indicator | Year | US (in \$) | Can. (in CAD) | Ger. (in EUR) | US in % | Can. in % | Ger. in % |
|---|------|---------------|------------------|------------------|------------|--------------|--------------|
| Health Care Expenditure | | | | | | | |
| Current expenditure on health (current prices) | 2019 | 3,593,722.00 | 250,584.60 | 403,444.00 | 100 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 2,517,142.80 | 120,265.70 | 197,882.00 | 70.04% | 47.99% | 49.05% |
| Long-term care | 2019 | 172,654.80 | 46,314.90 | 76,064.00 | 4.80% | 18.48% | 18.85% |
| Ancillary Services | 2019 | NA | 8,693.60 | 19,980.00 | 0.00% | 3.47% | 4.95% |
| Medical Goods | 2019 | 509,318.10 | 47,530.30 | 78,151.00 | 14.17% | 18.97% | 19.37% |
| Preventive Care | 2019 | 105,718.50 | 15,565.80 | 13,485.00 | 2.94% | 6.21% | 3.34% |
| Governance and Health System and Financial Administration | 2019 | 288,888.00 | 7,600.10 | 17,882.00 | 8.04% | 3.03% | 4.43% |
| Other Health Care Services | 2019 | NA | 4,614.30 | NA | 0.00% | 1.84% | 0.00% |

Source: <https://stats.oecd.org/>

The current expenditure on health in 2019 in the US was significantly larger than health expenditures in Canada and Germany. A total of more than \$3.5 million was spent on health expenditures compared to \$250,584.60 in Canada and \$403,444.00 in Germany. Although the US does have a larger GDP compared to Canada or Germany, the percentage is a very large portion of the entire health care expenditure of 70%. Narrowing down the key functions of health expenditures, inpatient and outpatient curative and rehabilitative was the highest expenditure out of all key functions when comparing the amount spent for each country. More than \$2.5 million was spent on curative and rehabilitative care compared to about \$120,000 in Canada and \$197,000 in Germany. 70% of the US health expenditure was spent on this. The next highest expenditure was on medical goods in all three countries. In total, US health care spending grew 4.6 percent during that year, rising to nearly \$3.8 trillion or \$11,582 per person. As commonly known, US healthcare is one of the most expensive, if not the most expensive healthcare system in the world. Being that healthcare is used or consumed collectively and individually, the distribution of services must be addressed based on specific needs and also aimed towards the needs of a whole population. In the US, there is more demand and need for these different types of services based on several factors regarding health issues. Besides the fact that people in the US are typically unhealthy due to the foods we eat and the environment we live in, there is also a very large population of people that refuse to use healthcare due to the outstanding costs that they would have to pay. This creates more severe health issues. The largest health expenditure in the US in 2019 was curative and rehabilitative care. This involves health care with the intent to relieve symptoms of illness or injury and to reduce the severity of an illness or injury, or to protect against exacerbation and/or complication of an illness and/or injury that could threaten life or normal function (SHA 2011) There are

also different types of curative care such as inpatient, daycare, outpatient and home-based. Seeing how much is being spent on this curative care, shows how different the US population is in terms of health compared to Germany and Canada whether it be based on the age group or other demographics such as area and race.

Funding Sources

There are four sectors that we had to look at while comparing data: government schemes, compulsory contributory health insurance schemes, voluntary health care payment schemes, and household out-of-pocket payments (*Figure 3*). Three areas had major differences between them: government schemes, compulsory contributory health insurance schemes, and voluntary health care payment schemes.

Figure 3: Funding Sources

| Indicator | Year | US | Canada | Germany |
|---|-------------|-------------|---------------|----------------|
| Health Care Financing | | in % | in % | in % |
| Government/compulsory schemes | 2019 | 25.80% | 68.70% | 6.50% |
| Compulsory contributory health insurance schemes | 2019 | 56.80% | 1.40% | 78.10% |
| Voluntary health care payment schemes (see comment below) | 2019 | 6.00% | 13.00% | 1.40% |
| Household out-of-pocket payment | 2019 | 11.30% | 14.90% | 12.70% |
| Other | 2019 | 0 | 2.00% | 1.30% |

Source: <https://stats.oecd.org/>

Government schemes vary drastically for all three countries. Canada's expenditures are roughly 70% and have been consistent since the late 1990s (HSPM Canada, 2020). This is due to Canada's universal health care called Medicare that is funded by the government. While in Germany they have public healthcare it is not primarily funded by the government like in Canada. Their funding comes from a compulsory scheme. The United States sits in the middle of Canada and Germany, the health care system is a mixed model where some expenditures are paid by the government while others are paid through compulsory or out of pocket. Although the United States is dominated by private healthcare, the government is still paying for half of each dollar spent on healthcare (HSPM USA, 2020). This explains how government funding and compulsory values are linked together for the United States.

Compulsory contributory health insurance schemes are much more similar in the United States and Germany than in Canada. Canada's low percentage here can be explained by having to pay a small monthly fee that covers the cost of medically required services that take place in a hospital. In British Columbia, this is called the Medical Service Plan (MSP) and in Ontario, it is called the Ontario Health

Insurance Plan (OHIP). In Germany, health insurance is compulsory and is split into SHI (Statutory Health Insurance) and PHI (Private Health Insurance). Employees are typically under SHI, however, once you reach a certain income threshold you will have the option to go under the PHI plan ([HSPM Germany, 2020](#)). There is a fixed SHI contribution rate of 14.6% of your gross income. The contribution amount is matched by employers. While PHI contributions are evaluated by your age and health risk ([HSPM Germany, 2020](#)). In the United States private healthcare funds roughly half of all health expenditures ([HSPM USA, 2020](#)). Most individuals that are financially able to or have an employer that will cover the private insurance monthly premium will have private insurance. This is because of the better and more flexible coverage when compared to the base Medicare system.

Voluntary health care payment schemes are more common in Canada than in Germany and the United States. In Canada, private healthcare is held by roughly two-thirds of the population. Individuals may pay for this out of pocket to complement their current base-level coverage through Medicare, although approximately 90% of premiums for private health plans are paid through employers ([HSPM Canada, 2020](#)). With the popularity of private healthcare in the United States and its large amount of coverage, there is often not the same need for the additional coverage as there is in Canada. In Germany, voluntary coverage is covered through a compulsory scheme PHI that was mentioned above. With the option of having a PHI plan, there is little need for any additional coverage as PHI is typically a full-coverage plan.

Conclusion

Finally, it is easy to say that every observed country has a unique health care system and has differences from each other. Especially in 'Health Care Resources and Utilization' (*Figure 1*) we identified great disparities which lead to different results in the countries' 'Health Status'. Moreover, spending in 'Health Care Expenditures' (*Figure 2*) differs for functions between the observed countries. Furthermore, all observed countries have different funding sources (*Figure 3*) whether it is from a compulsory scheme in Germany, a state-financed scheme in Canada, or a mixed system in the US.

The main reason for the different statistics for every observed country is that their origin is based on a different fundamental health system. The German health care system is based on the so-called 'Bismarck Model' which implies health care funding by workers and companies through 'sickness funds'. This is also reflected in our data as 78.10% of Germany's health care system is financed by compulsory schemes (*Figure 3*). In a Bismarck model, there are multiple insurers and service providers are usually private ([Vera Whole Health, 2020](#)). The main issue of Bismarck based models is how to provide and finance health care for all. Since Germany is a welfare state, health care is available to everyone and is compensated with expenditures from the state. However, due to the demographic change and an aging population in Germany fewer and fewer people are working, which means that there will be fewer people to finance the 'sickness fund' with their contributions, and government spending will increase ([German Federal Statistical Office, 2021](#)). This will be a problem with serious

consequences as Germany has by far the highest numbers of physicians in relative terms of population and most consultation visits out of our observed countries.

Canada's health care model is the National Health insurance model. This model is based on a combination of the Beveridge and Bismarck models. Canada incorporates how the government is a large single-payer for medical procedures from the Beveridge model, while also having private providers like in the Bismarck model (Vera Whole Health, 2020). This explains how nearly 70% of the health care funding comes from the government, and how the remaining 30% comes from voluntary private insurance and out-of-pocket payments (Figure 3). Although there are large payments that come from the government, individuals still have to pay a small monthly fee such as British Columbia's MSP or Ontario's OHIP to be registered. While this system is cheap and simple to navigate, there are some downsides. Long wait times at walk-in clinics, long waits in order to get an appointment, and delays in treatments are all a result of this model. It is often because of not enough physicians available, and less frequent checkups causing strains on the system. When compared to Germany, Canada only has 2.74 physicians available while Germany is getting close to double the availability at 4.39 physicians per 1000 individuals (Figure 1). That number is also linked to physician visits and displays how it allows Germans to visit physicians more frequently than Canadians.

Lastly, the US has a really fragmented health care system that is based on four fundamental health systems. For veterans, the US provides health care after the 'Beveridge model' meaning that health care is provided by the government and there are no out-of-pocket fees through unnecessary utilization is criticized. The US also introduced a so-called 'Medicare' system which is based on the NHS model. This explains the 25.8% of health care financing by the government which is significantly higher than the German government spending but also explains the lower number compared to Canada's solely NHS-based model (Figure 3). Lastly, underinsured people in the US use the 'Out-of-pocket model' meaning every payment needs to be out-paid by their own household which is one of the worst models as "[h]ealthcare is still driven by income" (Vera Whole Health, 2020).

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Slovenia, Italy, and the US

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Preface

The objective of this report is to analyze and compare the healthcare systems of three different countries: United States, Slovenia and Italy. The data has been collected beforehand, the source being the OECD Statistics webpage, that includes a wide range of variables explaining the different aspects of the healthcare industry in these countries.

Therefore, this data will be studied and commented on in this paper and conclusions will be drawn. The aim is to see how the healthcare system works in different parts of the world and its reasons.

Introduction

Table 1: Basic Data comparison

| Indicator | Year | US | SLOVENIA | ITALY |
|---|------|-----------|----------------------|---------|
| <i>1. Health Expenditure and Financing</i> | | | | |
| GDP per capita, PPPs | 2020 | 58,385.48 | 34,103.94 | |
| Health care expenditure as % of GDP | 2019 | 16.80 | 8.5 | 8.7 |
| Per capita health care expenditure in PPPs | 2019 | 10,948.00 | 3,303.50 | 3,653.4 |
| GINI coefficient (disposable income, post taxes and transfers) | 2016 | 0.41 | 0.248 | |
| <i>2. Health Care Resources and Utilization</i> | | | | |
| # of physicians per 1000 population | 2019 | 2.64 | 3.26 | 4.05 |
| # of hospitals per million population | 2018 | 18.81 | 13.98 | 17.53 |
| # of hospital beds per 1000 population | 2018 | 2.83 | 4.43 | 3.14 |
| # of days in hospital (average length of stay) | 2018 | 5.5 | 6.7 | 7.9 |
| # of visits to physician (number of consultations per capita for doctors only – exclude dentists) | 2019 | 4 (2011) | 6.7 | 10.3 |
| <i>3. Health Status</i> | | | | |
| Life Expectancy | 2019 | 78.9 | 81.6 | 82.4 |
| Infant Mortality Rate | 2018 | 5.7 | 1.7 | 2.8 |
| Maternal Mortality Rate | 2018 | 17.4 | 0 | 2.5 |
| Body weight (obese population, measured, % of total population) | 2019 | 42.8 | 56.5 (self-reported) | 9.8 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2019 | 10.9 | 17.4 | 18.6 |
| Alcohol consumption (liters per capita (15+)) | 2019 | 8.9 | 11.1 | 7.9 |

Starting with the healthcare expenditure and financing information, data about the GDP per capita is from 2020, while the other indicators are from 2019. Regardless of this, a considerable difference can be seen between the three countries. The United States is one of the richest countries in the world and that can be confirmed by looking at the GDP per capita. That is why, the health care expenditure as % of the GDP and per capita expenditure is higher than the other two countries. However, the main reason is that the majority of the healthcare system in the country is privately owned (Papanicolas, R.Woskie, K. Jha; 2018). Hence, the larger numbers.

Moving onto the healthcare resources and utilization, the number of consultations is one factor to mention because the data for the US could not be found for more recent years. However, there is data until 2011 and it can be seen that the number of consultations have been stable during the years, approximating 4. The other countries are closer to 10 visits to physicians on average. The difference could be blamed on the divergence of the type of healthcare.

The health status in the United States is worse than the other two countries. For example, there is a high infant mortality rate along with maternal mortality, both data being of 2018. Many reasons could be mentioned, but one of them is due to the racial disparity that is still prevalent in the United States, where BIPOC women are not given the same treatment as the next white person (T. Lang, C. King; 2008).

Lastly, tobacco consumption is higher in European countries than in the North-American one. This is related to income according to the Society for Research on Tobacco and Nicotine, disclosing that lower income areas have higher probability of smoking. Again, this can be confirmed by just looking at the first part of the table contents.

Health expenditures according to key functions

Table 2: Health Care Expenditure

| Indicator | Year | US | Italy | Slovenia | US | Italy | Slovenia |
|---|------------|--------------------------------------|--------------------------------------|--------------------------------------|---------|-------|----------|
| Health Care Expenditure | | in current prices (in USD, millions) | in current prices (in CAD, millions) | in current prices (in EUR, millions) | in % | in % | in % |
| 100 | 100 | 100 | | | | | |
| Current expenditure on health (CP) | 2019 | 3 593 722 | | 4125 | 100 | 100 | 100 |
| Curative and rehabilitative care | 2019 | 2 517 142 | | 2403 | 70 | 53.99 | 58.3% |
| Long-term care | 2019 | 172 654 | | 421 | 4,8 | 10.62 | 10.2% |
| Ancillary Services | 2019 | No data | | 138 | No data | 8.11 | 3.3% |
| Medical Goods | 2019 | 509 318 | | 875 | 14,2 | 20.93 | 21.2% |
| Preventive Care | 2019 | 105 718 | | 131 | 2,9 | 4.71 | 3.2% |
| Governance and Health System and Financial Administration | 2019 | 2888 888 | | 157 | 8 | 1.64 | 3.8% |
| Other Health Care Services | 2019 | No data | | No data for Slovenia | / | / | / |

a) Italy spent 8,11% on Ancillary services, which is almost five percentage points more, compared to Slovenia.

As seen from the table, Italy spent almost 5 (4,77) percentage points more than Slovenia for *Ancillary services* in the year 2019. The content of ancillary services is split between laboratory services, imaging

services as well it includes patient transportation and emergency rescue. (OECD, Eurostat, and WHO; 2017) Even if they are not an integral part of the care service package, ancillary services are a vital component for effective work of doctors, nurses, dentists, etc. They refer to the wide range of diagnostic and support services of almost every health care function, as they are providing information to move the patient along the way towards recovery, stability, and overall health. In our example, Italy spent the most on those services, which could explain why it spent less on *curative care* than both countries in comparison. Ancillary services can provide accurate data for a further effective process of treatment. On top of that, fewer costs for *curative and rehabilitative care*.

b) US expenditure on curative and rehabilitative care is the highest (70.04%) in comparison with Slovenia and Italy. At the same time, their spending on preventive care is the lowest among the countries.

Historically, healthcare has been skewed towards curative medicine neglecting preventive care leading to high cases of preventable diseases and mortalities. Preventive care reduces health expenditure, clinic admissions, hospital overcrowding, and radical treatments (N. Lujiten; 2010). When analyzing and comparing the data of the 3 selected countries for the year 2019, the US had the highest expenditures on *curative and rehabilitation care* among others, as well as spending the most on Governance Health System and Financial Administration. All other expenditures according to key functions had a smaller proportion in comparison with Italy and Slovenia. Their spending on other services, such as *preventive care, long-term care, medical goods*, etc. is low, leading to a higher rate of expenditures for *curative care*. Despite *curative care* remains crucial, as its principal intent is to relieve or treat symptoms of illness and/or injury (OECD, Eurostat, and WHO; 2017), expenditures on prevention services could lower the number of patients who need the curative health service, or at least make the care more efficient, having the necessary knowledge and treatment.

c) Expenditures for Governance and Health System and Financial Administration are the lowest in Italy, as the biggest portion of their funding came from government/compulsory schemes.

Services of governance, and health system and financing administration focus on a health system rather than direct health care, and are considered to be collective, meaning all users benefit from them. They are expected to maintain and increase the effectiveness and efficiency of the health system (OECD, Eurostat, and WHO; 2017). In the case of Italy, 73.80 percent of funds for health care was collected through *government/compulsory schemes* (Table 3), and it has a crucial role when thinking about the level of expenditures for regulation, administration, monitoring, and evaluation of resources. Italy has, in comparison with the US, a fairly simpler system of funding. Hence, the portion of expenditures for *Governance and Health System and Financial Administration* is much lower (US - 8,04%, Italy - 1,64%).

Funding sources

Table 3: Health Care Financing

| Indicator | Year | US | Slovenia | Italy |
|--|------|-------|----------|-------|
| Health Care Financing | | in % | in % | in % |
| Government/compulsory schemes | 2019 | 25.80 | 4.20 | 73.80 |
| Compulsory contributory health insurance schemes | 2019 | 56.80 | 68.60 | 0.20 |
| Voluntary health care payment schemes | 2019 | 6.00 | 14.30 | 2.10 |
| Household out-of-pocket payment | 2019 | 11.30 | 11.70 | 23.30 |
| Other | 2019 | 0.10 | 1.20 | 0.60 |

Source: OECD Database

Health Care financing's main focus is the management of funds for medical resources. There are patients that can not pay out of pocket medical expenses, healthcare financing works as credit and enables them to receive care. The effects of this is horrible because when the government spends most of their money on healthcare , the national debt increases and funds available for other programs that are also in need start to decrease. When people without healthcare insurance receive health care, they usually can not pay for it.

Health system financing can be classified in different way one way being Government/Compulsory schemes these are social protection schemes where membership is made compulsory by the government. When you look into this deeper during 2019 the US was at 25.80% compared to Italy being at 73.80% and Slovenia being at 4.20%, this is a huge difference between these number and the reason is many things but mainly due to the amount already being used for healthcare itself. Healthcare coverage through government/compulsory schemes are determined through an individuals lifestyle. In other cases we have compulsory health insurance schemes linked through payment of social contributions. In the US it is at 56.80%,Slovenia 68.60% and Italy 0.20% in this case Slovenia is way higher than the US surprisingly.In addition to these schemes we also have out of pocket payments and lets not forget out of pocket is a big proportion of health care and as well as voluntary payments. Voluntary payments schemes are different in each country. In the US it was at 6.00 % while Italy was less at 2.10% and Slovenia being greater than both at 14.30%.You start to notice these schemes overlap with each other in some cases. Out of pocket in Italy was greater than both Slovenia and the US , it was 23.30% and Slovenia 11.70% US around the same 11.30%. Lastly you have your other US 0.10%, Slovenia 1.20%, and Italy 0.60%.

Healthcare is a main budget no matter what country you're in. The only difference is the procedures put in place to decide how healthcare is provided and it changes yearly depending on political decisions. Every scheme and every out of pocket payment is a part of health care financing each country in the chart if you notice has a high or low precents and this is only during 2019 it goes to show the core functions of health systems that try to move towards universal health coverage by improving effective service coverage and it will continue to change.

Conclusions

So, which country has the best health care system? In our opinion, there is no correct answer to it. It depends on what it is that people value.

However, a good healthcare system has several attributes. Some of the data that identifies them was collected and analyzed in our 2nd assignment (Table 1). It is answering questions, for example, how long is it that people are living?; What is the infant mortality rate?; What is the rate of certain types of diseases; How well are they doing in prevention?; etc.

The second dimension that could help us identify if a health system is good or bad is identifying the benefits of the treatment, that should be in a good healthcare system greater than the costs. A bad health care system could have overspending on care that is of really questionable health benefit and at the same time, it has under-spending on health care that is of vital importance to people. We analyzed this dimension in our 3rd assignment (Table 2)

The last dimension reflects the values of society. It presents a level of solidarity in the country as the funding sources can be collected (governance/compulsory schemes) or individual (out-of-pocket payments).

Based on gathered data, we have concluded that both Italy and Slovenia have a universal system, while the US has a non-universal one. Moreover, the Italian National Health system follows a model similar to the Beveridge model, while Slovenia follows the Bismarck model. The US model was hard to identify, so we decided that they follow a mix of all - a hybrid model.

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Spain and Sweden

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Introduction

Health systems in the European Union (EU) are an integral part of the larger social security infrastructure. They reduce both health and financial hazard while also contributing significantly to social and economic well-being by preventing and treating illness and covering the costs involved.

The healthcare system in Sweden is divided into three levels: national, regional, and local. Sweden has 21 regional county governments, and the healthcare system is highly decentralized, with each region overseeing service provision and imposing local levies. The government allocates resources to ensure equity in the delivery of health services across the country, allowing for universal health care. The state is also in charge of government oversight. Municipalities oversee long-term care for the aged, crippled, and psychiatric patients on a local level. The Swedish healthcare system is largely subsidized by the government, with public spending accounting for 84 percent of total spending. Most of the private expenditure is paid for out of pocket by households, with user fees varied by location. <https://www.commonwealthfund.org/internationaal-health-policy-center/countries/sweden>

In Spain, the national health system, known as the Sistema Nacional de Salud (SNS), is based on universal coverage and is financed mostly through taxes. While the Ministry of Health retains national planning and regulation authority, health capabilities and primary control over regional operational planning, resource allocation, buying, and provision have been devolved to the 17 regional health authorities. Prior to the commencement of the economic crisis in 2010, which resulted in budget cuts, Spain's health spending trajectory was in line with that of other EU western countries. The economic crisis resulted in a steady increase in the Spanish public deficit and debt, prompting policies targeted at lowering government spending, with health spending falling by 0.6 percentage points of GDP between 2009 and 2015, with a turnaround in trend beginning in 2015. https://www.euro.who.int/__data/assets/pdf_file/0008/378620/hit-spain-eng.pdf

Table 1: Health care expenditures for Spain and Sweden.

| Indicator | Year | SWEDEN | SPAIN |
|---|------|-----------|-----------|
| <i>1. Health Expenditure and Financing</i> | | | |
| GDP per capita, PPPs | 2019 | 55,027.37 | 42,185.59 |
| Health care expenditure as % of GDP | 2019 | 10,899 | 8,977 |
| Per capita health care expenditure in PPPs | 2018 | 2,981.71 | 2,736.32 |
| GINI coefficient (disposable income, post taxes and transfers) | | | |
| <i>2. Health Care Resources and Utilization</i> | | | |
| # of physicians per 1000 population | 2018 | 4.32 | 4 |
| # of hospitals per million population | 2019 | / | 16.48 |
| # of hospital beds per 1000 population | 2019 | 2.1 | 3 |
| # of days in hospital (average length of stay) | 2019 | 5.4 | 6 |
| # of visits to physician (number of consultations per capita for doctors only - exclude dentists) | 2017 | 2.8 | 7.3 |
| <i>3. Health Status</i> | | | |
| Life Expectancy | 2019 | 82.96 | 83.49 |
| Infant Mortality Rate | 2019 | 2.1 | 2.6 |
| Maternal Mortality Rate | 2017 | 4 | 4 |
| Body weight (obese population, measured, % of total population) | | / | / |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2019 | 10.4 | 19.8 |
| Alcohol consumption (liters per capita (15+)) | 2019 | 7.1 | 10.7 |

Source: Teamwork based on the data gathered from <https://www.oecd.org/els/health-systems/health-data.htm>

Health spending per capita in Spain in 2019 was EUR 3616 This translates to 9.1% of GDP, which is lower than the EU average of 9.9%. In 2019, public financing as a percentage of overall health expenditure was 70.6 percent, which was lower than the EU average of 79.7%.

In Sweden, health spending is primarily funded by local taxes, as well as direct transfers from the national government, regional subsidies for outpatient medicines, and specific national programs. Sweden's health spending accounted for 10.9 percent of GDP in 2019, the third highest share among EU countries and significantly higher than the EU average of 9.9 percent. Sweden spent the fourth most on health per person in the EU in 2019, with EUR 3 837 (adjusted for differences in purchasing power). In Sweden, since 1995, health-care spending as a percentage of GDP has been increasing. However, rather than an increase in health costs, the significant increase in spending as a percentage of GDP is

related to a reduction in GDP.

Another variable that differs greatly between the two countries is the number of visits to physician (excluding dentist). In Sweden, there is an average of 2.8 and the Spanish average is 7.3. If we look at the numbers on health status, we can see that Spain is ahead of Sweden, with more people smoking, drinking alcohol, and being overweight. Furthermore, the neonatal and maternal mortality rates in Spain are higher. As a result, we believe that one plausible explanation why Spanish people visit the doctor more frequently than Swedes is that Spanish habits are less healthy than Swedish habits.

Following the same logic, the data suggest that persons who use the Spanish health system spend more time in the hospital than those who use the Swedish system (7.2 and 5.6 respectively).

Health expenditures according to key functions

2019 expenditures for long-term care represented a notably larger share of all health expenditures in Sweden (26%) compared to Spain (9%).

Our results suggest that the differences in household structure, more than potential differences in gender roles and/or a more traditional Spanish lifestyle, explain the differences in caregiving between Spain and Sweden.

Caregiving is generally thought to be a female prerogative in any society but could differ between societies of distinct character and culture. We have chosen this comparison of caregiving in Spain and Sweden, because Spain is assumed to be traditional and familistic, while Sweden is supposedly more modern and individualistic, with more gender equality and extensive welfare programs, which may have diminished male and female informal caregiving.

Relative rates of caregiving for persons outside one's own household are much higher in Sweden than in Spain, probably because the Spanish survey refers to the main caregiver, while the Swedish evidence refers to anyone who provides care, and partly also because of different household structures with proportionally more frail older Swedes living alone and thus inviting more help from outside.

| Indicator | Year | Spain | Sweden | Spain | Sweden |
|---|------|-----------------------------|--------------------------------------|-------|--------|
| Health Care Expenditure | 2019 | in current prices (in Euro) | in current prices (in Swedish Krona) | in % | in % |
| Current expenditure on health (current prices) | | 113,674.2 | 548,767.0 | 100 | 100 |
| Curative and rehabilitative care | | 66,435.8 | 281,197.0 | 58% | 51% |
| Long-term care | | 10,710.8 | 144,141.0 | 9% | 26% |
| Ancillary Services | | 5,665.7 | 23,739.0 | 5% | 4% |
| Medical Goods | | 25,142.2 | 68,790.0 | 22% | 13% |
| Preventive Care | | 2,437.7 | 17,980.0 | 2% | 3% |
| Governance and Health System and Financial Administration | | 3,282.0 | 9,417.0 | 3% | 2% |
| Other Health Care Services | | | 3,503.0 | | 1% |

Caregiving may be more common in the general population in Sweden than in Spain, because older Swedes, including persons in need, live alone or with a partner only. They may then receive proportionally more external help, spread on more hands, male and female, resulting in more caregiving between households. In comparison, caregiving inside the household may be more common in Spanish households.

Older Swedes who live alone are typically older and frailer than partnered persons, a pattern that is less pronounced in Spain, where frail persons may find refuge in complex households. Social services typically intervene for frail older persons who live alone, and perhaps more so in Sweden than in Spain. (Abellan, A., Perez, J., Pujol, R., Sundstrom, G., Jegermalm, M., & Malmberg, B. (2017). Partner care, gender equality, and aging in Spain and Sweden. *International Journal of Ageing and Later Life*).

2019 expenditures for medical goods represented a larger share in Spain (22%) compared to Sweden (13%).

Since they were spending more on medical goods their investment paid off because according to the data, Spain is the healthiest country, followed by Italy, Iceland, and Japan (John E., (2019)).

In our observation brand-name prescription drugs are priced higher in Sweden than in peer countries, and since in Spain drugs that are prescribed directly by a doctor, are for the most part covered or highly discounted under the Spanish health system.

2019 expenditures for curative and rehabilitative care represented a larger share in Spain (58%) compared to Sweden (51%).

Among the countries able to provide information on post-acute rehab utilization and costs, we observed that those with universal long-term care systems (such as Sweden) spend fewer days and subsequently lower costs in the post-acute rehab setting. This again suggests that in countries without easily

affordable and accessible long-term care, care and costs are being shifted into the post-acute setting.

Most cross-country comparisons to date have focused on looking at variations in the utilization and cost of hospital care. The results illustrate that across health systems, there is considerable variability with regards to the relative share of care, and expenditures, which occurs in hospitals for this patient group. Limiting comparisons to only the inpatient setting likely provides a misleading picture of resource use for these patients. Until we have a broader perspective of the distribution of resources across the care pathway, health policy will remain fragmented and miss out on the biggest opportunities to improve care for this group of patients and improve the efficiency of health care systems (Irene Papanicolas PhD, Jose F. Figueroa MD, MPH, Andrew J. Schoenfeld MD, (2021)).

Funding sources

Health funding is a critical component of healthcare systems that can help move us closer to universal health coverage by enhancing service coverage and financial security. Given the unique context of each country and its starting point in terms of health financing arrangements, health financing reforms cannot simply be imported from one country to another; the underlying causes of performance problems differ in each country, and the reforms proposed in a health financing strategy must address these causes.

| Indicator | Year | Spain | Sweden |
|---|------|-------|--------|
| Health Care Financing | 2019 | in % | in % |
| Government/compulsory schemes | 2019 | 66.6 | 84.9 |
| Compulsory contributory health insurance schemes | 2019 | 4 | / |
| Voluntary health care payment schemes (see comment below) | 2019 | 7.2 | 0.7 |
| Household out-of-pocket payment | 2019 | 21.8 | 13.9 |
| Other | | 99.6 | 99.5 |

When we look at government / compulsory schemes, we can observe that Sweden has a larger percentage than Spain (84.9 and 66.6 respectively). Compulsory schemes are social protection programs in which government membership is mandatory. The higher, the better for the country, as the health system covers more.

The term “voluntary health insurance schemes” refers to programs based on the purchase of a health insurance policy that is not mandated by the administration and in which insurance premiums may be subsidized explicitly or implicitly by the government.

If we focus on the data we have, it is observable that Spain has 7.2%, a much higher percentage than Sweden, which is 0.7%. This result agrees with the data we have discussed above, as the government

compulsory scheme in Spain is lower, so it encompasses less.

In comparison to Spain, Sweden's VHI business is modest. In the case of health care, private insurance is optional. The primary benefit of having private person insurance is the ability to quickly visit an ambulatory care specialist and bypass waiting lists for elective treatment. However, because employers pay for most of the private insurance in Sweden, VHI is primarily tied to occupational health and safety. It accounts for less than 1% of health expenses. Employers are the primary purchasers, and it is largely used to ensure speedy access to an ambulatory care expert and minimize waiting lists for elective treatment. <https://data.oecd.org/healthres/health-spending.thm>

Conclusion

Based on the source of their funding, three main models of healthcare can be distinguished. The one we will talk about is the Beveridge model, the countries using this model are the UK, Italy, Spain, Sweden, Denmark, Norway, Finland, and Canada (Lameire, N., Joffe, P., & Wiedemann, M. (1999))

This model is named after William Beveridge, the daring social reformer who designed Britain's National Health Service. In this system, health care is provided and financed by the government through tax payments, just like the police force or the public library. Many, but not all, hospitals and clinics are owned by the government; some doctors are government employees, but some private doctors collect their fees from the government.

There are no out-of-pocket fees for patients or any cost-sharing. Everyone who is a tax-paying citizen is guaranteed the same access to care, and nobody will ever receive a medical bill (Reid, T. R. (2009). Four basic models of health care. Change, 27)).

Governments in countries with the Beveridge model, which have been relatively successful at controlling total expenditure on health care and have traditionally given limited choice to their patients, because they have relied on their GP as the gatekeeper, guide, and coordinator of their health care.

Health care in Denmark and Sweden is based on the Beveridge model, but traditionally managed and financed by local government, not by central government (Bevan, G., Helderman, J. K., & Wilsford, D. (2010)).

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The UK, Switzerland, and the US

Authors: Aydin Tugay (Turkey), Sanchez Amanda (U.S.), Roberston DeAnrew (U.S.)

Introduction

Firstly, without having any data on these countries, it can be guessed that the results of GDP per capita may be close to each other based on their names. But after various data we gathered from OECD, we saw that the United Kingdom is behind in terms of GDP per capita when compared with the United States and Switzerland.

At the same time, it is possible to see that per capita health expenditure in the UK is lower compared to US and Switzerland. However, in the health status section, we observed that although it failed in health expenditures, the UK was in a better position compared to the US. In addition to this, although the health expenditure and financing data of the United States does not look bad, we see that it is relatively weak in terms of health status compared to Switzerland and the United Kingdom.

Maternal mortality refers to deaths due to complications from pregnancy or childbirth. From 2000 to 2017, the global maternal mortality ratio declined by 38 percent - from 342 deaths to 211 deaths per 100,000 live births, according to UN inter-agency estimates. This translates into an average annual rate of reduction of 2.9 percent. While substantive, this is less than half the 6.4 percent annual rate needed to achieve the Sustainable Development global goal of 70 maternal deaths per 100,000 live births.

Although the US is in a very low class in UNICEF's maternal mortality rate classification, we see that it is in a worse position compared to Switzerland and UK.

| Indicator | Year | US | Switzerland | UK |
|---|------|-----------|-------------|-----------|
| 1. Health Expenditure and Financing | | | | |
| GDP per capita, PPPs | 2019 | 65,097.50 | 73,144.50 | 48,542.20 |
| Health care expenditure as % of GDP | 2019 | 16.8 | 11.3 | 10.2 |
| Per capita health care expenditure in PPPs | 2019 | 10,948.50 | 7,138.10 | 4500.1 |
| GINI coefficient (disposable income, post taxes and transfers) | 2017 | 0.39 | 0.357 | 0.299 |
| 2. Health Care Resources and Utilization | | | | |
| # of physicians per 1000 population | 2019 | 2.64 | 4.35 | 2.95 |
| # of hospitals per million population | 2018 | 18.81 | 33 | 28.75 |
| # of hospital beds per 1000 population | 2018 | 2.83 | 4.63 | 2.5 |
| # of days in hospital (average length of stay) | 2018 | 6.1 | 8.2 | 6.7 |
| # of visits to physician (number of consultations per capita for doctors only - exclude dentists) | 2018 | 4 | 4.1 | 5 |
| 3. Health Status | | | | |
| Life Expectancy | 2019 | 78.9 | 84 | 81.4 |
| Infant Mortality Rate | 2018 | 5.7 | 3.3 | 3.9 |
| Maternal Mortality Rate | 2007 | 12.7 | 1.3 | 7.1 |
| Body weight (obese population, measured, % of total population) | 2019 | 42.8 | no data | 28 |
| Tobacco consumption (% of population aged 15+ who are daily smokers) | 2012 | 14.2 | 20.4 | 20 |
| Alcohol consumption (litres per capita (15+)) | 2019 | 8.9 | 9.3 | 9.7 |

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. It is defined as a person's weight in kilograms divided by the square of his height in meters (kg/m²).

Another indicator that the United States lags behind is body weight. According to OECD's 2017 data, 31 percent of the American population has obesity problems. At the same time, according to data in 2016, America ranks 12th among countries in the world in terms of obesity rate.

Health expenditures according to key functions

Healthcare spending is a critical expense for most nations and their citizens in order to stay healthy and cared for. The U.S. continues to spend the most on healthcare per person, even though outcomes and quality of care is not often ranked highest.

Many countries follow the U.S. in healthcare spending, but the big difference is most of that cost is subsidized by the government while the U.S. relies on costly, private health insurance plans. The U.S. has some of the highest expenditures for health care in the world. With currently a total health spending of over 17 percent of the country's GDP, the

| Indicator | Year | US | Switzerland | UK | US | Switzerland | UK |
|---|------|---------------------------|------------------------------------|---------------------------------------|------|-------------|------|
| Health Care Expenditure | 2019 | in current prices (in \$) | in current prices (in Swiss Franc) | in current prices (in Pound Sterling) | in % | in % | in % |
| Current expenditure on health (current prices) | | 3593722 | 82080 | 225195 | 100 | 100 | 100 |
| Curative and rehabilitative care | | 2517143 | 44676 | 124123 | 70% | 54% | 55% |
| Long-term care | | 172655 | 16769 | 40115 | 5% | 20% | 18% |
| Ancillary Services | | N/A | 3579 | 4244 | N/A | 4.40% | 2% |
| Medical Goods | | 509318 | 11858 | 31690 | 14% | 13% | 14% |
| Preventive Care | | 105719 | 1810 | 10751 | 3% | 2.20% | 5% |
| Governance and Health System and Financial Administration | | 288888 | 3338 | 4191 | 8% | 4.10% | 2% |
| Other Health Care Services | | N/A | 50 | 10081 | N/A | 0.06% | 4% |

U.S. has far surpassed the country with the second highest health expenditure as part of GDP-Switzerland. The United States, despite having a mixed method of healthcare financing and insurance, also has one of the highest shares of domestic governmental health expenditures.. In 2019, the U.S. spent seventeen percent of its GDP on health consumption, whereas the next highest comparable country (Switzerland) devoted twelve percent of its GDP to health spending.

Wealthy countries, including the U.S., tend to spend more per person on health care and related expenses than lower-income countries. However, even as a high-income country, the U.S. spends more per person on health than comparable countries. Health spending per person in the U.S. was over ten thousand in 2019, which was forty two percent higher than Switzerland, the country with the next highest per capita health spending. Swiss residents are required to purchase basic health insurance, which covers a range of treatments detailed in the Swiss Federal Law on Health Insurance.

There are also differences in where healthcare services are typically provided in different countries. In the UK, hospitals, which mainly provide curative and rehabilitative care, make up around forty-two percent of overall spending. Universal Healthcare is offered in the UK.

Funding sources

Healthcare involves any medical procedure intended to enhance a person's health. Healthcare financing is the management of money for medical resources. Healthcare financing covers hospital care, physician care, dental care, prescriptions, and other personal medical services. If patients can't afford their out-of-pocket medical expenses, then healthcare financing would serve as credit and allow them to receive care. For the past months, our group has been observing and comparing the different methods of healthcare financing between countries. The United States, Switzerland and Great Britain finance their healthcare differently, which raises the question. Who has the more efficient system?

| Indicator | Year | US (see the note below) | Switzerland | UK |
|---|------|-------------------------|-------------|------|
| Health Care Financing | | in % | in % | in % |
| Government/compulsory schemes | 2019 | 25.8 | 22.5 | 78.5 |
| Compulsory contributory health insurance schemes | 2019 | 56.8 | 44.3 | N/A |
| Voluntary health care payment schemes (see comment below) | 2019 | N/A | 7 | 2.8 |
| Household out-of-pocket payment | 2019 | 11.3 | 25.3 | 15.9 |
| Other | 2019 | 6.1 | 0.9 | 2.8 |

According to our data, the United Kingdom's government compulsory schemes are significantly higher than America's and Switzerland. This is because Great Britain has a government funded universal health care system called the National Health Service (NHS). Unlike Switzerland and the U.S., the U.K.'s government negotiates prices for medical costs and regulates prices. I'm surprised that Britain's percentage for government compulsory schemes aren't higher than 80 percent. On the other hand, the percentages for compulsory contributory health insurance schemes were high for both Switzerland and the United States. This category strictly identifies with private insurance, which is why we assume this category isn't applicable to the United Kingdom.

Conclusion

The UK has a government-sponsored universal healthcare system called the National Health Service (NHS). The NHS consists of a series of publicly funded healthcare systems in the UK. It includes the National Health Services (England), NHS Scotland, NHS Wales, and Health and Social Care in Northern Ireland. Citizens are entitled to healthcare under this system but have the option to buy private health insurance as well. The NHS Plan promises more power and information for patients, more hospitals and beds, more doctors and nurses, significantly shorter waiting times for appointments, improved healthcare for older patients, and tougher standards for NHS organizations. The UK's health care system is one of the most efficient in the world, according to a study of seven industrialized countries.

The Commonwealth Fund report looked at five areas of performance – quality, efficiency, access to care, equity, and healthy lives, The Netherlands ranked first overall, closely followed by the UK and Australia. The UK performed well when it came to the quality of care and access to care. The UK also ranked the first inefficiency, which was measured by examining total national spending on healthcare as a percentage of GDP, as well as the amount spent on healthcare administration and insurance. (Josh Chang, Felix Peysakhovich, Weimin Wang, Jin Zhu,?)

The United Kingdom spends 78.5% on financing in government compulsory schemes while America and Switzerland spend a fraction of that. In Great Britain, the citizens are covered under the National Health Service (NHS). NHS is a universal, government-funded healthcare system. Unlike America, where only a specific group of people receive government-funded care. In Switzerland, duties and responsibilities in the Swiss health care system are divided among the federal, cantonal, and municipal governments. Each of the 26 cantons has its own constitution and is responsible for licensing providers, coordinating hospital services, promoting health through disease prevention, and subsidizing institutions and individual premiums. The federal government regulates system financing, ensures the quality and safety of pharmaceuticals and medical devices, oversees public health initiatives, and promotes research and training. The municipalities are responsible mainly for organizing and providing long-term care and other social support services for vulnerable groups.

The rising prices of health insurance have guaranteed a result in disapproval for roads, transportation, water systems, etc. The expense of healthcare in America is devastatingly significant compared to other countries. It is evident that the United States is behind other countries in terms of healthcare and even education. For the same level of treatment, America spends twice as much per capita on healthcare as most other nations. Fees for service are some of the factors caused by the increase in prices. In all industries, providers are compensated based on the services they give rather than the outcomes they achieve. Providers in the healthcare industry are compensated based on the treatments they prescribe and the services they offer, not on the patient's health.

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ASSIGNMENT DESCRIPTION

In this section we provide all the assignments that were created for this class.

Introduction to COIL Assignments

Today's employers are looking for more than a college degree in their new hires. They expect their potential workers to be conversant in the 4Cs of 21st Century learners: communication, collaboration, creativity, and critical thinking. The purpose of this COIL class is to provide you with an opportunity to develop and deepen exactly these skills.

The Task:

You have been assigned your partner(s) to work with in creating content for this course. All of you come to this project with different backgrounds and skills, which means your team has the autonomy to assign tasks accordingly.

Objectives:

- Collaboratively prepare 4 COIL assignments
- Prepare the final report
- Prepare a short video discussion with your partner(s) about the final report
- Communicate effectively with others

The Assessment

You will be assessed individually, as well as for your teamwork and based on peer evaluation.

Grading of the COIL Project

Your COIL project grade constitutes a certain portion of your final grade that is determined by your professor. See your syllabus or professor's instructions for more information about how much your entire COIL project is worth when it comes to determining your final grade.

The COIL project itself will be graded based on several parts. In particular, the grading of the COIL project will be broken down as follows:

| Item | COIL Project Grade |
|--------------------------|---------------------------|
| Group contract | 5 % |
| Evaluation forms | 5 % |
| Individual effort | 70 % |
| Team score | 20 % |

In order to earn individual points your group needs follow a system to delineate tasks or show who has completed what section. More precisely, you must agree on how you will color code all the text that you write. Each student must write the text using a different color and it needs to be clear which student is using which color.

In some instances, color coding of the text will not work well - in such circumstances, please explain or list what part of the task was completed by who.

If we can't figure out who has written what or edited what content, or created different information it will be difficult to provide individual scores.

Each team should select one member that will be responsible for submitting the assignment for the team. In addition, this person will be responsible for sharing feedback that the team receives from the instructors with the teammates.

Your Team Work will be assess using this rubric:

| | Novice (30%) | Proficient (80%) | Excellent (100%) |
|------------------|--|---|---|
| Team Work | Lone Wolfs, did not work well with others. | Most of the team worked together to complete the project. | Wolf pack, worked together, completed the task and worked through issues. |

Late Submissions:

- All the assignments must be submitted by the date and time indicated on Canvas.
- If you are late with submitting your assignment by one day (24 hours) your team works will be penalized by 5%.
- If you are late with submitting your assignment by more than one day and up to one week you will be penalized by 20%.
- Any assignment submitted more than a week late will receive 0%.

Deliverables:

I. Team Contract

Below you can find information about Group Contracts and Team Expectations Agreement. Work collaboratively to create expectations for your group. These expectations are how your team score will be evaluated. Once you have created your team contract and have signed it, please submit it as an assignment here in Canvas.

If there is a dispute or a “couch potato” or a “hitchhiker” it is your responsibility as a group to work through the issue. If you are unable to work through this you need to contact the professors. If someone is hostile in your group, you need to contact the professors. Bullying will not be tolerated in this class or in this assignment. Leaders build people up not tear them down.

II. 4 separate COIL Assignments (Multiple dates, see To Do List for more info)

You will be assigned a partner/partners with whom you will work with during the semester.

Be sure that you are consistent with the color coding text as described in the team contract so that individual effort can be assessed.

III. Final Report

Your final project will be graded using the following rubric:

| | | | |
|--|---|---|--|
| Quality of Content | Content has not been well thought through, missing main points. | Content is informative, but still lacking substance. | Content is excellent and provides a full picture of the concept. |
| Completeness of Task | The final report was not completed. | The final report was mostly completed. | The final report is complete. |
| Organization of the final report: Structure and transitions | No discernable organization. Transitions are not present. Connections between ideas seem confusing or incomplete. | Logical progression of ideas. Organization is clear. Transitions are present. | Logical progression of ideas with a clear structure that enhances the thesis. Transitions are mature and graceful. |
| Mechanics: Spelling, punctuation, capitalization | Distracting errors in punctuation, spelling, capitalization. | Punctuation, spelling, capitalization are generally correct, with few errors. | Punctuation, spelling, capitalization are correct. No errors. |
| Citations/Attributions | Sources were not cited and copyright laws were broken. | Sources were mostly cited, but still room for improvement. | Sources were cited properly and attributions correctly placed. |

IV. Final Video Discussion

V. Evaluation Forms

At the end of the project, once you have submitted your final draft report you will be required to fill out the following forms:

1. Self-evaluation form

[Self Evaluation Form - Google Forms](#)

2. Peer Evaluation forms (one for every other member of your team)

[Peer Evaluation Form - Google Forms](#)

3. Group Evaluation form

[Group Evaluation Form - Google Forms](#)

These forms will be submitted online via Google forms and only the professors will be able to review them - in other words, they will not be visible to your team members or other students in this class.

Team Contract

What is a group/team contract?

A group contract is a document that a group creates to formalize the expectations of group members. A group contract should contain the following:

- Group members' names and contact information.
- Expectations (ground rules) regarding preparation for and attendance at group meetings, frequency and duration of meetings, and communication. The contract should focus on behaviors that will be expected of all group members and should only include those behaviors that are crucial to the group's effectiveness. Groups could aim for five-seven ground rules.
- Assignment of specific tasks, roles, and responsibilities along with due dates. The group can itemize the tasks to be completed for the project and provide a space for each group member to sign up for that task. Here is a nice description of possible team roles you might assign to each team member: [Team Roles](#)
- Outline of the specific process for dealing with unmet expectations or other problems that might arise.
- An agreed-upon method for peer feedback during the project so that problems can be addressed before the project ends.
- A place for each group member to sign (this can be electronic signature), indicating their agreement to the contract.
- A place for group members to sign (this can be electronic signature) once the project is completed to indicate whether or not they agree that all group members contributed as expected and, therefore, earn the group grade.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=139>

Please use this form as the template for your team contract:

[Team Contract for COIL](#)

Conflict resolution resources

- [Resolving Conflict](#) from the UBC Learning Commons
- [8 Steps for Conflict Resolution](#) for the Office of Talent Management, University of Wisconsin-Madison

Some good resources about group work:

- [Coping with Hitchhikers and Couch Potatoes on Teams](#)
- [What Google Learned From Its Quest to Build the Perfect Team](#)
- [Teamwork Skills: Being an Effective Group Member](#)
- [Working effectively in groups](#)
- [How to Teach Students to Manage Themselves](#)
- [Understanding the Team](#)

Assignment 1: Personal Experience - written

General Instructions

This assignment has 3 distinct steps:

Step 1: Set up a time and date with your assigned partner(s) (see List of partners above to see who you will be working with) to get to know each other and to select which case you three will be working on together (see below the 6 cases that you can select from). We recommend that you use Zoom to connect with and talk to your partner(s). In addition Zoom can also be used to record videos that will be part of this and the final assignment.

Approximate time for the online meeting: 10 minutes

Step 2: Once you know which of the six cases you will be working on, please type up the answers for your own country and submit your work [here](#). In order to submit your assignment, please click on the blue button “Start Assignment” at the upper right hand side of this page.

Step 3: Set up another meeting with your partner(s) and talk to them about your answers. Your partner(s) will tell you about their experiences. Use this time to delve a bit deeper in discussing the differences or similarities of your experiences.

It is probably a good idea to write down the answers that your partner(s) are describing to you, so that you will be able to more accurately and in greater detail describe them in the video.

Once you have talked to each other and discussed the answers to the questions below, please record a joint video. We recommend that you use Zoom to record your conversation. In the video recordings you are supposed to answer the questions below not from your own country or your own experience but based on the answers your partner(s) provided you from their country and vice versa. In other words, in the video you will summarize each other experiences (switch roles).

Approximate time for the online meeting: 60 minutes. The recorded video itself will be **about 5 minutes long**, but it might take few takes and experimentation to make it work and sound the way you want to. In addition, you are encourage to use slides to highlight the most important points.

You should record your video in the Assignment 1: Personal Experience - video.

Questions for the assignment

The purpose of this exercise is to first learn about the health care system in your country and then to compare it with other systems. In order to answer these questions, you may build on your own experience, but you may also have to talk to other family members, friends, make a call to your health insurance or even visit a doctors' office or a hospital.

1. Who pays for your health care services? Are they governmentally funded? Do you have health insurance? Do you pay out-of-pocket?
2. What is your monthly contribution for health care (health insurance premium, taxes, deductibles, etc.)?
3. Can you list and explain your deductibles, co-insurance, co-payment and out-of-pocket maximum.
4. Pick **one** of the cases below and explain how would it be addressed within your health care system? First, where would you go in order to get a test and a treatment? How would it be treated? How much would it cost? What would be the expected outcomes? Be as precise as possible.
 1. COVID-19
 2. Simple cold
 3. Flu
 4. Type II diabetes
 5. Serious car accident
 6. Childbirth and delivery

NOTE for students in the U.S.: Even if YOU don't have to pay for the health care services directly, it is possible that your parents are your sponsors and THEY have to pay. How much do they pay for the family insurance? What are the family out-of-pocket costs for the services that YOU are getting? So even if YOU are not financially responsible for these payments it is very likely someone in your family is. Please describe those expenditures and costs in your questions above.

You should submit your written answers (**max 2 pages**) under the Assignment 1: Personal Experience - written.

Once you have the answers to these questions, you need to explain and describe it to your partner.

Assignment 1: Personal Experience - video

Once you have talked to your assigned partner(s) and discussed the answers to the questions provided in Assignment 1, please record a joint video. We recommend that you use Zoom to record your conversation. In the video recordings you are supposed to answer the questions not from your own country or your own experience but based on the answered your partner provided you from their country and vice versa. In other words, in the video you will summarize each other experiences.

Approximate time for the online meeting: 60 minutes. The recorded video itself will be **about 5 minutes long**, but it might take few takes and experimentation to make it work and sound the way you want to.

Please post your video in the post below by clicking the Reply button. There should be one video per team which should include all the members of the team. Please do not post individual videos.

Note: Everyone in this class will be able to watch the posted videos and you are strongly encouraged to make comments as well.

Assignment 2: Basic Data Comparison

General Instructions

This is an assignment where students will work in groups. The list of team members and assigned countries was provided already for assignment 1.

You are required to get in contact with your partners and work together with them to complete this task. Given that this is a team assignment there should only be **one submission of the assignment per team**. You were asked to assign the task of submitting to one of your team members in the team contract.

For this assignment you need to collect data on several different indicators listed below for three different topics:

1. Health expenditure and financing
2. Health care resources and utilization
3. Health status

After you finish, you have to submit a completed table of data for all countries. Please use the following table in order to record the data for all countries.

Assignment 2 Data Table

Please note that for assignments 2-4 you will be asked to only submit the data table so that we can check if the data are correct. We will provide feedback so that you can correct any mistakes before submitting the final report. In the final report, however, you will be asked to also to comment and analyze the data, so please check the instructions for assignment 5 as soon as possible so that you can draft comments and discuss them with your partner(s) already at this stage.

Detailed Instructions for Assignment 2

1. Health expenditure and financing

In this assignment you need to compare countries, so it is vital that you are using appropriate comparable data. A common framework, i.e. System of Health Accounts (SHA), has been developed to enhance the comparability of data over time and across countries. SHA 2011 is the current statistical reference manual giving a comprehensive description of the financial flows in health care.

Use this video for a short introduction on health accounts and how are they used: <https://www.hfgproject.org/health-accounts-explained/>

You have to look at the following indicators in more detail:

1. GDP per capita, PPPs
2. Health care expenditure as % of GDP
3. Per capita health care expenditure in PPPs
4. GINI coefficient (disposable income, post taxes and transfers)

Since the focus of our study will be to analyze OECD countries, we can use the **OECD database** (<https://stats.oecd.org/>) to find the data. The following video provides information on how to use the OECD database. The video shows how to find and download data, but keep in mind that you are not expected to submit downloaded excel files, but you are expected to find the data and fill only one data table that has been provided above. Also, the video shows how to find data for longer time periods. You are expected to provide only data for the latest comparable available year for studied countries.

In addition, in the video some additional variables are used that you are not asked to report in this assignment (for example GDP and GDP per capita in national currency). Please ignore those parts of the video and only report the variables and data that we are asking you to complete. But please not this: the reason why GDP and GDP per capita in national currency are NOT used in cross-country comparisons, it is because, for a large part these comparisons are meaningless since they are reported in different currencies. For example, what would it mean if in the U.S. they spend \$5000, in the UK £2000, in Slovenia €1800, and in Japan ¥7000 per person? Which country is spending more and which country is spending less? It is impossible to tell! Hence, any time, we are doing international price or costs comparisons, all the data needs to be converted into the same currency.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=149>

In the video on the use of the OECD database we mention that data need to be corrected for differences

in purchasing power when making international comparisons. See a short video below that discusses this in more detail:

<https://www.investopedia.com/updates/purchasing-power-parity-ppp/>

You are asked to compare the GINI coefficient. See a short video for definition and interpretation:

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=149>

2. Health care resources and utilization

We encourage you to look at the following indicators in more detail:

1. Number of physicians per 1000 population
2. Number of hospitals per million population
3. Number of hospital beds per 1000 population
4. Number of days in hospital (average length of stay)
5. Number of visits to a physician's office (number of consultations per capita for doctors only - exclude dentists)

Again, use the **OECD database** (<https://stats.oecd.org/>) to find the data. The following video provides information on how to use the OECD database.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=149>

The following video provides information on how to get data on the number of hospital beds per 1000 population as this information has not been provided in the previous video.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=149>

Why are these numbers expressed in **per 1000 population** or **per million population**?

The numbers for the whole population are not very informative. The total number of physicians in the U.S. is far greater than the total number of physicians in, say, Belgium. But that is because the total population of the U.S. is far greater than that of Belgium. What does it tell you about the state of either country if you know the total, absolute numbers rather than the rates? Not much. It is really hard to compare. So, how do we fix this problem? The first, thing we could do is to simply divide the number by the population of each country to adjust for the population size in each country. This is how we get a *per capita* or *per person* or *per head* figure – similar to what is done to GDP per capita. However, the numbers we are looking at (number of physicians, number of hospital beds, infant mortality, etc.) will be decimals below one that people don't like as much. For example, the global average birth rate is 18.5 births per 1000 population, or 0.0185 per capita. People compare 9 with 11 more easily than they compare 0.009 and 0.011 or 90,000 and 110,000. Hence, these adjustments make international comparisons a lot easier and more meaningful.

3. Health status

We encourage you to look at the following indicators in more detail:

1. Life Expectancy
2. Infant Mortality Rate
3. Maternal Mortality Rate
4. Body weight (obesity)
5. Tobacco consumption
6. Alcohol consumption

You can use the OECD database (<https://stats.oecd.org/>) again to find the data. The following video provides information on how to use the OECD database.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=149>

NOTE: The value for individual indicators must be from the same year for all analyzed countries and you should be using the most current year as possible. For example, if the most current data for a specific indicator for one analyzed country is for year 2019 and for the other it is for 2018, you should be reporting data for year 2018 for BOTH countries. The latest available year may differ between different indicators.

Assignment 3: Key Functions and Health Care Expenditures

This is again an assignment where students work in groups. The list of team members and assigned countries was provided already for assignment 1.

You are required to get in contact with your partner(s) and work together with them to complete this task. Given that this is a team assignment there should only be **one submission of the assignment per team**. You were asked to assign the task of submitting to one of your team members in the team contract.

As in the previous assignment you need to compare countries, so it is vital that you are using appropriate comparable data. As you have already learned a common framework, i.e. System of Health Accounts (SHA), has been developed to enhance the comparability of data over time and across countries. SHA 2011 is the current statistical reference manual giving a comprehensive description of the financial flows in health care.

Use this video for a short introduction on health accounts and how are they used: <https://www.hfgproject.org/health-accounts-explained/>

Visit also this website to download the SHA 2011 manual:

<https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-05-19-103>

From this manual (see for example pp. 53-55) you can see that the core accounting framework is organized around a tri-axial system for the recording of health care expenditure, namely classifications of the functions of health care (ICHA-HC), health care provision (ICHA-HP), and financing schemes (ICHA-HF). These three core classifications address the three basic questions:

1. What kinds of health care goods and services are consumed?
2. Which health care providers deliver these goods and services?
3. Which financing scheme pays for these goods and services?

This assignment addresses the first question. There is one task:

1. For the selected countries assigned to your team **investigate the structure of current health expenditures according to key functions** in the **latest available year**.

The latest available year may differ between the two selected countries. Select the same year for both

countries. If for example for one county the latest available year is 2019 and for the other it is 2018, then make the comparison for 2018.

Health Care Expenditure

We want to see what kind of health care goods and services are consumed in your selected countries. Because the list of different health care goods and services is very, very long, we need to group them in some way. Within the SHA 2011 framework such groups are called health care functions. On pp. 83-84 (Chapter 5) of the SHA 2011 manual you can find a detailed classification of health care functions.

This assignment requires you to take the following steps:

1. Identify the key functions

From the SHA 2011 manual (pp. 83-84 of Chapter 5) you can see that functions can be either very detailed or more aggregated. For this assignment you are required to investigate the structure of current expenditures according to key functions, i.e. functions on a more aggregate level:

- HC.1 Inpatient and outpatient curative care
- HC.2 Inpatient and outpatient rehabilitative care
- HC.3 Long-term care (health)
- HC.4 Ancillary services (non-specified by function)
- HC.5 Medical goods
- HC.6 Preventive care
- HC.7 Governance and health system and financing administration
- Other Health Care Services

Note that we will combine HC.1 and HC.2 into one entry titled “Curative and rehabilitative care”. Use the following table to prepare and later submit the data:

Assignment 3 Data Table

Please note that for assignments 2-4 you will be asked to only submit the data table so that we can check if the data are correct. We will provide feedback so that you can correct any mistakes before submitting the final report. In the final report, however, you will be asked to also comment the data, so please check the instructions for assignment 5 as soon as possible so that you can draft comments and discuss them with your partners already at this stage.

2. Getting the data

The data to solve this assignment can be found either on the pages of Eurostat or OECD. Click the following link <https://www.oecd.org/els/health-systems/health-data.htm> and follow the short video below to see how to access the data.

The video shows how to export and analyze the structure over a long time period. For this assignment you are expected to do the analysis only **for the latest available year for all studied countries**, so when customizing the time period for analysis you do not need to select a long time period but perhaps last two years (so that you have data available in case the latest available year differs for studied countries). Another note is that the video was prepared a few years ago so we show that the latest available year is 2017. Currently, however, the latest available year in the database is 2019 or 2020 (depending on the variable observed), but the structure of the database is still the same as shown in the video.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=151>

3. Calculate the structure

Follow the short video below to see how to use the extracted data to calculate the structure of current expenditures according to key functions. Again the video illustrates how to calculate the structure for a longer time period (11 years), but you are required to **observe the structure just for one, i.e. latest available year, for all countries**.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=151>

Submission of Results

After you finish, do not submit the downloaded excel files from the OECD database, but put the data in a single file. Please use the following table in order to structure and report the data for the two

countries. Keep in mind that one team member is responsible for uploading the assignment. You were asked to assign the task of submitting to one of your team members in the team contract.

Assignment 4: Sources of Funding

This is again an assignment where students work in groups. The list of team members and assigned countries was provided already for assignment 1.

You are required to get in contact with your partners and work together with them to complete this task. Given that this is a team assignment there should only be **one submission of the assignment per team**. You were asked to assign the task of submitting to one of your team members in the team contract.

As in the previous assignment you need to compare countries, so it is vital that you are using appropriate comparable data. As you have already learned a common framework, i.e. System of Health Accounts (SHA), has been developed to enhance the comparability of data over time and across countries. SHA 2011 is the current statistical reference manual giving a comprehensive description of the financial flows in health care.

Use this video for a short introduction on health accounts and how are they used: <https://www.hfgproject.org/health-accounts-explained/>

Visit also this website to download the SHA 2011 manual:

<https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-05-19-103>

From this manual (see for example pp. 53-55) you can see that the core accounting framework is organized around a tri-axial system for the recording of health care expenditure, namely classifications of the functions of health care (ICHA-HC), health care provision (ICHA-HP), and financing schemes (ICHA-HF). These three core classifications address the three basic questions:

1. What kinds of health care goods and services are consumed?
2. Which health care providers deliver these goods and services?
3. Which financing scheme pays for these goods and services?

This assignment addresses the third question. There is one task:

1. For the studied countries **identify financing schemes that pay for health care goods and services** in selected countries **in the latest available year**.

The latest available year may differ between the two selected countries. Select the same year for both countries. If for example for one county the latest available year is 2018 and for the other it is 2019, then make the comparison for 2018.

Health Care Financing

We want to see which financing schemes pay for health care goods and services in selected countries. On pp. 165 (Chapter 7) of the SHA 2011 manual you can find a detailed classification of health care financing schemes.

This assignment requires you to take the following steps:

1. Identify health care financing schemes

From the SHA 2011 manual (pp. 165, Chapter 7) you can see that health care financing schemes can be either very detailed or more aggregated.

2. Get the data

The data to solve this assignment can be found on OECD. Click the following link <https://www.oecd.org/els/health-systems/health-data.htm> and follow the short video below to see how to access the data.

You will need to obtain data for the following variables:

1. Government/compulsory schemes
2. Compulsory contributory health insurance schemes
3. Voluntary health insurance (See comment below the video before you start downloading the results!)
4. Household out-of-pocket payment
5. Other (As you will export variables 1-4 above in the share of current expenditures on health, this category can be calculated by 100%-sum of shares for categories 1-4.)

Note that you will have to create category “Other” that will include any other parts that are not included in the other 4 categories.

Use the following table to prepare and then submit your results:

Assignment 4 Data Table

Please note that for assignments 2-4 you will be asked to only submit the data table so that we can check if the data are correct. We will provide feedback so that you can correct any mistakes before submitting the final report. In the final report, however, you will be asked to also comment the data, so please check the instructions for assignment 5 as soon as possible

so that you can draft comments and discuss them with your partners already at this stage.

The video shows how to export and analyze the structure over a long time period. For this assignment you are expected to do the analysis only for the latest available year for both countries.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021/?p=153>

A comment for US:

Customise selection

Other selections: Financing scheme[5/17] **Function [1/49]** **Provider [1/34]**
 selected: 165

Find in selection Exact wording or phrase

- Financing scheme
 - All financing schemes
 - Government/compulsory schemes
 - Government schemes
 - Compulsory contributory health insurance schemes
 - Voluntary schemes/household out-of-pocket payments
 - Voluntary health care payment schemes**
 - Voluntary health insurance schemes**
 - NPISH financing schemes
 - Enterprise financing schemes
 - Household out-of-pocket payments
 - Rest of the world financing schemes (non-resident)
 - Financing schemes unknown

For the US, a more detailed breakdown of data on voluntary health care payment scheme is not provided, so if you select voluntary health insurance schemes, no data will be provided for US. I suggest you select **voluntary health care payment schemes for US**.

For EU countries **leave voluntary health insurance**. This limits comparability, but I would like you to see the role of voluntary insurance in Europe.

Submission of Results

After you finish, one team member (see your team contract) should upload the results.

Assignment 5: Final Report

For this assignment there will be the same composition of teams as in previous assignments.

In assignment 5, you are required to put together the final report based on the data you were collecting in assignments 2, 3 and 4. The final report should have 4 chapters:

1. Introduction

This chapter should be based on data you have collected as part of assignment 2 (basic data comparison). Based on feedback received after completion of assignment 2, you can correct the data and add a short comment of the table. You are expected to compare the countries. You do not need to comment every indicator included in the table, but you can select a few indicators that exhibit largest differences. If you are, for example, comparing US and Slovenia, you could comment that in 2019 health expenditures as a share of GDP in US (16.8%) exceed those in Slovenia (8.5%) for 8 percentage points ($16.8-8.5=8.3$). You could also for example comment that compared to US, Slovenia has lower GDP per capita and also lower health expenditures per capita. Another example is a comment about US having much higher health expenditures per capita than Slovenia but health status (measured by infant mortality, life expectancy,...) is better in Slovenia. Try to elaborate on reasons for observed differences (check the video below for some useful resources).

2. Health expenditures according to key functions

This chapter should be based on data you have collected as part of assignment 3. Based on feedback received after completion of assignment 3, you will be able to correct the data and add a short comment of the table. You are expected to compare the structure of health expenditures according to key functions between the studied countries. Values in current prices cannot be compared, but the share of different functions is comparable. Again, you do not need to comment every indicator included in the table, but you can select a few indicators that exhibit largest differences. If you are, for example, comparing US and Canada, you could comment that in 2019 expenditures for long-term care represented a notably larger share of all health expenditures in Canada (18.5%) compared to US (4.8%). Try to elaborate on reasons for observed differences (check the video below for some useful resources).

3. Funding sources

This chapter should be based on data you are collecting as part of assignment 4. After you submit the table that is included in instructions for assignment 4, you will be given feedback and you will be able to correct any mistakes before you submit the final report. Again, you are expected to compare the structure of funding between countries and you can focus on key differences. You may, for example,

find out that the share of out of pocket payments is different between countries. There is a short video below that you can use to try and research the reasons behind these differences. The link to the resource discussed in the video is: <https://www.hspm.org/mainpage.aspx>

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021?p=155>

You can find additional useful resources, but make sure they are credible. Some examples:

Canada:<https://www.youtube.com/watch?v=heK471H-s1s>

France:<https://www.youtube.com/watch?v=MHzUCToycks>

UK:<https://www.youtube.com/watch?v=45PfRLntfBU>

Germany:<https://www.youtube.com/watch?v=1d3QLPdHysc>

Australia:<https://www.youtube.com/watch?v=X9XZcgFZdi0>

Keep in mind that all databases and all other resources used need to be cited in your report and included in the reference list.

4. Conclusion

This chapter should summarize your conclusions and based on what you have learned, you can identify the type of the health care system of the studied countries. Different typologies of health care systems exist, but as this is an introductory course you can familiarize yourself only with one basic typology (Beveridge, Bismarck, NHS, etc.). Use a video below to explore the typology. In the conclusion, you can just identify the model for each country.

One or more interactive elements has been excluded from this version of the text. You can view them online here:
<http://oer.veronika-dolar.sunycreate.cloud/coil2021?p=155>

The final report should not exceed 5 pages.

Upon completing your final report, one team member (see your team contract) should upload the results.

Assignment 6: Final Collaborative Discussion

After all 4 assignments are completed and after you complete your final report (assignment 5), you and your partner(s) will need to create a short video in which you will discuss the data collected in the previous assignments. In your presentation you can focus on a few variables that you found particularly interesting or surprising. You will all need to appear in this joint video. We recommend that you use Zoom to record your conversation.

The video presentation and discussion should not be longer than 15 minutes. Each student in the group should actively participate (talk).

Please post your video in the post below by clicking the Reply button. There should be one video per team which should include all the members of the team. Please do not post individual videos.

Note: Everyone in this class will be able to watch the posted videos and you are strongly encouraged to make comments as well.

Final COIL Discussion and Reflection

As you know this Health Economics class was a Collaborative Online International Learning (COIL) course. The purpose of COIL was to take students on an intellectual journey that is rich in cross-cultural experiences and brings the students to a deeper, more enriched understanding of the course content. This class was linked with another class in Health Economics taught at the University of Ljubljana in Slovenia. A section of the class material on the topic of International Comparisons of Health Care Systems and Health Expenditure was the joining part of the two classes.

In this very last assignment I would like you to take a bit of time to reflect about your experiences in this class, especially as it relates to COIL section (but feel free to include other parts of the course as well). Imagine that you are on a job interview. What would you be able to say about your international experience in this course?

In order to help you with addressing this question, please carefully think about the following statements and questions. Try to be as detailed and specific, by providing concrete examples of what you have done and learned in this class.

1. This experience provided insights into social and economic structures, politics, and traditions that are different from mine.
2. To what extent did taking this course helped you gain a different perspective on U.S. culture and economics (especially as it relates to health economics)?
3. As a result of this course will you be able to connect more readily on a personal and business level if/when the opportunity arises again to work with people overseas?
4. To what extent did taking this course helped you grow in maturity and cultural self awareness (awareness of own cultural preference and biases and that of other cultures)?
5. Did this course help you learn how to communicate effectively across cultures, including the use of relevant technology.

Final comments to keep in mind:

Many employers value study abroad, and cross-cultural competence is a skill employers want.

The challenge facing students is to successfully translate what they learned into accomplishment statements on their resumes, and to effectively articulate and clearly describe these skills during their job interviews. Students must build a sophisticated “toolkit” to market the value of their varied portfolio of international experiences to employers. (Matherly 2005)

The value is not that you had the experience itself but what you learned from it that allows you to work

in a cross-cultural environment.

[Here is a link to a very nice presentation about how to market your international experience](#)

[And another one on how international experience can boost your career](#)

[How international experience can benefit your career](#)

FINAL STUDENT REFLECTIONS

At the end of the semester, students in the U.S. were also asked to take a bit of time to reflect about your experiences in this class, especially as it relates to COIL section. Here are a few reflections by students that have taken this class or a class taught as a COIL section in previous years.

Reflection 1, Fall 2021

At the beginning of this course, my understanding of the American economy was limited. I hadn't realized the prominence of the health sector in the economy despite my active involvement as an individual who suffers from Asthma. It isn't surprising that most of us start out this way until we're presented with staggering data (or a large bill) - revealing to us the outrageous costs of medical goods and services compared to other countries, specifically developed European countries. A Flovent inhaler, which I use twice a day, can range from \$250 to \$350USD without insurance. In some European countries, the price of an inhaler is less than \$20USD. According to [cms.gov](https://www.cms.gov), the U.S. health expenditure as a percentage accounted for 17.8% of GDP in 2019. As of recent data provided by this source, United States health spending has grown 9.7% in 2020. The amount spent on health per person was \$12,530 in 2020.

I do not believe I would have left this course enriched with the knowledge to know that reform is needed to take place in our health care system without the incorporation of COIL. COIL which stands for Collaborative Online International Learning has allowed me to diversify my studies and cultural competence while also immersing me into the health economies of European Countries. In this project, I was teamed with two students- one that lives in Slovenia and another that lives in the Netherlands. Both students were knowledgeable of not only their health systems but how these systems affected their overall economy in their home countries. The collaboration with these students from the University of Ljubljana in Slovenia enabled me to compare the health system of the U.S. to identify successes and inefficiencies.

We were exuberant to meet every week and speak of our findings on each other's countries. What was shocking to my international classmates was the relationship between money being spent and the degree of care being provided in the United States. Most shockingly to them, was the fact that amongst the poorest countries that could not afford paid maternity leave, the United States, known as the greatest and wealthiest country to be, was in fact on that list. At first, we were all quite amazed by one another's home country. However, at the end of the course, I believe my new friends were a bit more content with their health systems compared to ours here in the U.S... The most frustrating and persistent complaint that remained for my classmates was the wait times due to providing accessible care for everyone whereas in the U.S. the denial of insurance, inflated costs, and substandard care decreased sought medical services. From my observance of the data collected, it was both striking and fascinating to learn about the effectiveness of a single-payer system presented by these countries and its usefulness in eliminating costs.

My participation in COIL exposed me to the outside view of the United States. Despite its declining health care system in terms of effectiveness, most foreigners view America with rose-colored frames. Little is it known how badly reform is needed in our health sector compared to our European allies. The

facade that is painted by the romanticized American Dream can be most clearly seen as a house of cards through the data collected in this course. The inflated costs of medical goods and services bring money into the hands of a few but at what costs to the consumers and employers with businesses that provide health insurance? A diminishing mortality rate maybe. The United States ranks poorly in this category and the most common argument by critics is population size. In data presented by the worldbank.org, people under the age of five (per 1,000 live births for the year of 2019) project a 2.1 mortality rate for Slovenia and 6.5 rate for The United States. This is the result of a free market. It's quite humiliating how politicians have pushed for a free market in the health sector without allowing perfect competition to take place. A free market in the health sector is present because there is a monopoly for companies created by patents. The patents awarded to these companies enable them to inflate the drug prices by thousands of dollars with no fear of regulation. There is nothing that currently constraints these companies from raising their prices in this free market. The higher the cost of drugs the higher premiums rise, negatively affecting consumers and businesses that provide health insurance. Without the course's participation in COIL, I wouldn't have been enlightened to the differences in regulations across health care systems in the U.S. & Internationally from the personal experiences of myself and my overseas classmates. However, there was much more that I took away from this besides informative data concerning the health economies of our assigned countries.

This course helped me as well as my classmates to quickly learn how to communicate effectively across cultures by using platforms such as Zoom and WhatsApp. Concerning the skills that I have attained from my experience being involved in COIL consist of improved organizational skills, problem-solving from a world-view apart from a domestic approach, and increased cultural competence. These skills are valued by employers and have enabled me to more readily connect on a personal and business level with individuals internationally. Given the current situation our country currently faces with the ongoing Covid pandemic, international communication is easily accessible through Zoom.

By Melanie Ram

Reflection 2, Fall 2021

Health Economics and COIL has given me a new perspective about not only the changes Americans should embrace but the many flaws I didn't even know. I learn a lot from the classes I take but this course has shown me the possibility of a better healthcare system. Watching movies such as SICKO and Where to invade next showed me how unfair citizens in the United States are treated. In places such as Italy, honeymoons are paid for compared to having to fight for a sick day. In France, the nutrition fed to the children is top tier and healthy while here in the U.S Prison food and school food are on the same spectrum. The fact that there can be a society with no regard for our own people, makes me wonder if I want to live here forever. There are fewer physician visits than peers in most countries, which may be related to a low supply of physicians in the U.S. We use expensive technology, such as MRIs, and specialized procedures, such as hip replacements, more often than other countries but the cost in order to receive those types of treatments, you have to pay an arm and a leg. The U.S. has the one of the highest rates of breast cancer screening among women ages 50 to 69 and the second-highest rate (after the U.K.) of flu vaccinations among people age 65 and older. Compared to other nations, the U.S. has among the highest number of hospitalizations from preventable causes and the highest rate of avoidable deaths. The U.S. spends more on health care as a share of the economy, nearly twice as much as the average country, yet has the lowest life expectancy and highest suicide rate along with an obesity rate that is two times higher than the average country.. I hope we can do better and in the meantime, I will help in any way towards reforming justice. This class has been one of the best I've taken!

Reflection 3, Fall 2021

The importance of education and remaining focus to reach my everyday goal has always been something I feel strongly about. When I decide to take health economics it was not based off personal interest rather a requirement, on my end there aren't any regrets. I will say the amount and work was extremely challenging it felt like two classes in one. In the beginning I was nervous to find out the process into completing these tasks and what it entailed, overtime I was still drawn to learning more because I will say our professor just made the class intriguing. Working with others from different parts of the world provided insights into social and economic structures, politics and traditions that are different from America. From our first assignment we received such insight into healthcare cost, my group was from Italy and Slovenia after hearing about the way the government runs things made me question my healthcare and if I would ever have to worry about something. In my personal experience I've never paid anything out of pocket besides my braces and that is only because it wasn't considered something I needed rather than something I wanted which I could argue but regardless healthcare is a basic need for people it shouldn't feel like if we don't have the money we should start to worry about bills. Overall, I feel even with this ongoing pandemic we are starting to pay closer attention to how our government handles decisions, and we are more likely to continue paying attention because of this. I will say at times it was hard to not feel overwhelmed I am a full-time student and a full-time worker, so my brain has been exhausted but it was worth it and what was a plus were my partners they really worked around my schedule and that was very much appreciated but I made it work to where I completed my assignments and learned about Italy and Slovenia. We could've communicated better I will say a lot of times we didn't go off the team contract but at the end we completed the assignments, so I didn't mind as much. Regardless I seek learning and becoming more aware and when given this opportunity although challenging I gave my best and received the same back. I think it is important to note that our healthcare system is a serious issue we lack in America and having COIL included in a course just showed us that, including the films we watched. It is outrageous to know we live in a country with lots of money and power, but nothing is done.

Reflection 4, Fall 2021

To me COIL was not only interesting but highly informative. I did not think people from other countries used the same slang as people from the US or even New York and it was just a very nice experience. I had to look at the US but my teammates who were from Slovenia, and Serbia had to look at Slovenia and Austria. Serbia was not on the database, so we went with Austria. This also made me realize how bad we have been living in the US compared to other countries such as, Austria, and Slovenia.

One thing that had a significant difference within the countries was health expenditure, financing, and health status. The U.S. health system stands out with its high healthcare expenditures. The price of medical care is the biggest factor behind healthcare costs, being responsible for 90% of spending. This shows the cost of taking care of people with chronic medical conditions, increased cost of new medicines, and procedures and technology. Along with high healthcare spending we also have a high infant and maternal mortality rate. Women in the US are more than four times likely to die due to complications from childbirth than women in comparable countries. On the bright side the US has low tobacco consumption compared to the other countries. This is probably because of the legalization of marijuana which a lot of people use as a substitute. Slovenia stood out because Infant mortality rate (1,7 per 1000 births) and Maternal Mortality rate (0 per 100,000 live births). They are one of the leading countries in that regard. The reason behind is that they have regular free check-ups during the period of pregnancy and even after birth, the mother is visited at home by the expert(s) to check on some key health indicators. Safety of moms is important for country since it kind of gives incentive to more births, which is desirable since fertility is falling in developed countries. Even though their care expenditures per capita (PPP), for example, is substantially lower than US, they are doing a lot better in those regards (however, they have shown in classes that HE exp. P.c. is not correlated with infant mortality). Austria's health system stands out with its health care resources capacity. Its leading country in terms of number of beds and physicians per 1000 population. Health care is something Austria invested in, so this country provides their citizens with comfortable health care at any time. Despite good health care capacity, there is negative side of this country too. Alcohol and tobacco consumption is higher than in Slovenia and US.

This is also affected by fast life tempo and tradition this country has (there is a high consumption of beer in Germanic countries). Number of daily smokers is almost double compared to US. Law regulative also contributed to those numbers since they are different in US and Europe. Another thing we investigated was health care expenditure. The United States cost for long-term care and curative and rehabilitative care is very high compared to the other countries. This is because Americans are having fewer children and are living longer. Chronic medical conditions such as dementia, diabetes, cancer etc require ongoing medical attention. Fewer children mean less family care givers. Most people are not saving enough to pay for long-term care. Regarding ancillary services they are not actually zero, rather than that, they use different methodology and include expenditures for ancillary services under the category curative and rehabilitative care. Slovenia spends a high portion of its budget for health on medical goods. Slovenia regulates pharmacy drugs prices in a manner that they look at prices of

selected good in other countries and they control for wages etc. and pick the lowest price. This goes against the numbers, and expenditures for medical goods are increasing in recent years. Part of explanation is that Slovenia has low expenditures for labor, so medical goods account for bigger part of the budget spent. Since basically everyone is compulsory insured, they rarely pay for pharmaceuticals, so they don't feel the budget constraint, which results in "over-healing" and consequently higher expenditures on medical goods. Another interesting figure are expenditures for governance and financial administration. Experts thought that it is not that important, but they had a big administration problem during COVID-19 outbreak that resulted in over-financing specialized teams and rooms for treating COVID-19 patients. It is also the first thing that they cut on if the budget gets tight (as it did during pandemic), but incident mentioned above should make decision-makers reconsider next time. Austria has low preventive care expenditures which obviously results in higher long-term, rehabilitative and curative care expenditures. There should be balance between those expenditures and focus of patients and physicians. People often don't care about their health until it's ruined which negatively affects people's lives but also economic situation in health funds of the country. It's easier and cheaper to prevent all diseases that are preventable than taking care of them when they already occur. Lastly, we spoke on health care financing. In the United States there are three main funding sources for healthcare. The government, private health insurers and individuals. The government programs are Medicare and Medicaid. Medicare is a program of health insurance designed to help the elderly to meet hospital, medical, and other health costs. This is usually available to people 65 and older. Medicaid provides healthcare coverage to low-income families and individuals in the United States. Private health insurance are usually employer-sponsored plans, which cover half of the American population. For example, I'm under my mother's insurance which is Emblem Health. Lastly is out-of-pocket which is the cost of medical care that isn't covered by insurance. In Slovenia, the big majority of health care financing comes out of compulsory health insurance schemes. As mentioned before, health insurance in Slovenia is mandatory and payment for such services comes out of wages each month. Compulsory insurance covers around 80% of individual's medical costs, so majority of people also choose voluntary health care insurance schemes, which cover the remaining 20% of individuals medical costs. As seen in table, their budget is mainly financed by insurance schemes, instead of via government.

What we noticed about Austria are a lot higher government schemes compared to two other countries and higher out of pocket payments. First thought would be that there is high difference in health care of richer people and people to have lower income, but that is not true. Austria has special health care support programs for people with lower incomes, so everyone's health needs are met. Austria is one of the EU countries with lowest level of unmet medical needs. Exception is dental care which doesn't have same treatment as other health procedures, so patients need to give high amounts of money for dentist visits and interventions.

COIL is a great idea and should be used for a lot more classes. I never thought I would be able to successfully communicate with people from two different countries at once. This just goes to show how far technology has come. I also didn't think that we would get along so easily. Most countries don't like America and it usually shows. But my teammates were very helpful and nice. In all I would do it again if I had the chance and now, I know I can work in a cross-cultural environment.

Reflection 5, Fall 2021

Being a student of Collaborative Online International Learning (COIL) course introduced students to a unique classroom experience because many students don't receive the opportunity to work with students internationally and especially with strict Covid-19 protocols limiting travelling abroad. One of the things that this course provided be with was insight into social and economic structures, politics and traditions that are different from mine. For example, while completing many of the coil assignments it was quite interesting that although the United States is considered by many to be the best country in the world, we lag in many categories such as life expectancy and infant mortality. For my groups coil assignment, we investigated the United States, United Kingdom and Portugal and the United States fell behind both in terms of these categories. In terms of cultures and economics many of things I learned about the citizens in the countries we investigated were very surprising. For example, in the United States everything is for profit and people truly believe that universal insurance is bad, but if we look at countries like Spain and the United Kingdom, who both have single payers, we learn that the mindset of these people is completely different. They believe in universal coverage and are quite happy with their systems resulting in an economy more for the people instead of being more for profit. One thing I really appreciated from my group is their willingness to work around the different needs of the group. My group often met on Mondays or Thursdays at 1pm United States time or 19:00 in Slovenian time, which we found to work the best because it wasn't too late for them or too early for me. On occasion when are group did meet I either had to wake up earlier, or they would go to sleep later for us to complete an assignment and this was important in showing us the importance of sacrifice. In closing this course was very successful at introducing students to the difficulties of working with groups abroad and this is valuable experience that not many have been a part of and I'm grateful for everything I've learned.

Reflection 6, Fall 2020

Throughout this Health Economics course, we have compared a variety of international health care systems with our own unique system here in the U.S. The COIL section of this class has allowed me to interact with not only my fellow classmates, here in the U.S. but also collaborate and discuss with students from Slovenia, who are also learning about health economics at the University of Ljubljana. This experience gives me access to an outside perspective regarding international health care systems as well as the health care system in the U.S. This experience has provided me with different perspectives and insights into economic and social structures, as well as politics and traditions. An example of this is the U.S. health care system itself, and how it compares to systems in countries like Portugal and Canada. From my prior knowledge, I was aware that a decent sized percentage of the GDP was in health expenditures in the U.S., but after analyzing the data from the OECD, it was interesting to find out that countries that are advanced just like us, like Portugal and Canada, actually have a significantly less percentage of their GDP dedicated to health expenditures. The U.S. GDP consists of 17% health expenditures in 2019, where in Canada that number is at 10.80%, and in Portugal, the number is even lower at an astonishing 9.6% in 2019. With this being said, the U.S. health care system is a much discussed and controversial issue here in America in the sense of politics because health care in America does not come free. Due to expenses and fees, traditionally, lower class citizens struggle to afford health care and are sometimes even denied insurance. Here in the U.S., the health care system can be seen as a profit oriented business rather than a service for the public like in other countries. During this class, we also got to communicate over online meetings with students from Slovenia, and some of the perspectives that they had on public health care was exotic to me but also taught me about public healthcare from a different perspective. One Slovenian student had informed me about a flaw in their public health care system. I had learned that wait times in hospitals and doctor's offices are very long compared to American wait time.

In a number of ways this course has opened my eyes to different perspectives on U.S. culture and economics. In COIL, I learned based on the numbers of the data that the U.S. health care system has profits as a priority over helping the public. The health care industry might be economically successful as these private health care companies gain profits and become an important part of the U.S. GDP, but this comes at an expense to the public. Not only does it a financial burden to pay health care fees, deductibles, and co-pays, but also the results of the health care system that is heavily funded does not provide better health outcomes compared to countries, who have less funded public health care systems like Portugal and Canada. For example, the U.S. has much more health care expenditures than Portugal and Canada, but at the same time the life expectancy and maternal mortality rate is still worse in America compared to these countries as late as 2019. Aside from the COIL class, in the health economics course, I had learned from the audio clip, "Playing God" that in times of crisis, although we are an advanced country and try to hold high moral standards, we still in times resort to a triage system. This triage system took place in America in Memorial Hospital due to the devastation that Hurricane Katrina caused in 2005. In this disaster, patients were left to die, and were even euthanized

as doctor felt it was necessary to end the life of certain patients who might waste resources. This film opened my eyes to the horrors that can and have took place even in America with a well-funded health care system.

Back to the COIL part of the course, I do believe that I will be more readily able to work with others overseas on a personal and business level. When collaborating with the students in Slovenia, at first, I was nervous and felt almost awkward in my approach on what to say and how to build a conversation with people from a different country. After engaging in the conversation, I felt this confidence and actually was able to connect with the Slovenian students and I honestly felt like I gained friends from the experience. After the experience, I also felt more interested in Slovenian culture to the point where we continue to chat through texts online asking one another questions about the lifestyle they live and how it differs from our life here in America. The foreign students also made me aware of certain issues pertaining to Slovenian Health Care and their subjective views on their public health care. I believe it is good to have an alternative perspective, as in America, we just study and observe international health care systems from the outside, but it is definitely a learning experience and advantage to hear a perspective from a student living in the country. Hearing these other perspectives, also allows me to become aware of some of my own bias or personal views on my culture. While we were on the online collaborating call, the two other American students and myself found ourselves jealous of the public health care system in Slovenia and how the private healthcare system has lead to many disasters and loss of life in America. In all, us, American students felt like a bias towards public healthcare, as we found the private health care system was something that should be reformed in order to help more people. And when we were voicing our bias, we had soon realized that some of the students in Slovenia thought that there public health system need changes and maybe some more privatization. It just goes to show that there are cultural biases towards certain policies that form within a country and we become aware of them when talking to outsiders with a different view. In the other parts of the Health economics course, we learn about other cultural biases we have. Here in America, we see ourselves as a nation that is dominant and an influential leader of the world, but in the film "Sick around the World," we see that the U.S. is far from superior in terms of health care and the outcomes that are a result. As many countries like us that do not spend as much on health care, are actually better off at providing for the public. So throughout this course, I have been able to better understand and mature my perspective on the U.S., regarding health care systems.

Lastly, this course has allowed me to better communicate effectively across cultures and has allowed me to understand how to use different technologies, like the WhatsApp, that allows texting internationally, and also collaborative face timing that allows me to see and talk to others around the globe. I have developed a better understanding of factoring in time management with international time differences as well. But most importantly, I have gained confidence in working and communicating with people of a different ethnic background and this has better enhanced my cross- culture competence. This class has introduced me to a variety of cultural differences and has given me the ability to engage in projects with students from Slovenian. I have definitely grown to have a better understanding of different cultural perspectives and I would be more than happy to take part in an international collaboration again in the future.

Reflection 7, Fall 2020

COIL was a great experience and taught me a lot of things during this journey of the Fall semester. I learned and gained a lot of knowledge of throughout this experience. This experience provided me insights of a social, economic, philosophical, and political that are not familiar to me and it allowed to me view the world in a broader way. As we live in America many American citizens and residents view the country as a country that is superior in every way when compared to other countries. The mentality of being superior constantly makes many American people disregard how others live as we only focus on how our nation is great. However, with this COIL section of the class it allowed me to gain an intellectual journey that was eye opening and showed that other countries do live better in certain aspects. During the COIL assignments us students were able to economically analyze data which allowed us to see in what areas America and other countries are different in structure such as health care spending, insurance, age, and existing conditions many other aspects. Analyzing these data's and then eventually working and discussing with other students gave us a better understanding of how and why the numbers are aligned. In terms of on a personal level working along with other students also allowed me to respect others culture, and helped me communicate with students who reside abroad in many ways such as adjusting to time management, and scheduling. Discussions with students aboard allowed me to understand the system of other countries are different than how Americas is. The learning experience throughout this assignment is an experience that changed the view of my understanding, and further strengthen my communication in a cross-cultural environment.

Reflection 8, Fall 2020

1. This experience made me realize that the U.S healthcare system is probably the worst out of all the first world countries. Me and my partner were studying Italy and the life expectancy and maternal mortality rates were better in Italy than in the U.S. Additionally, I dislike the arrogance of the U.S for always stating that they are the best in the world, when the only statistic where that is the case is in GDP, and even then China will blow us out of the water in a few years.
2. The culture of the U.S is to wait till its in the worst possible state to then address the problem, while in other countries they focus on preventive care. For example, in the U.S a person who has back pain will wait a couple of years until it is unbearable, only to go to the doctor and discover it is stage three cancer. Whereas in France or Spain on one that would experience the same back pain would, get those sick days off from work, have the medical coverage to pay the doctor a visit and within the next couple of weeks, have already got treatment, vacation time to recuperate from the injury and is ready to go back to work in the best of health.
3. Yes, I will be able to connect more with people overseas because I have gotten a taste of some of the culture and lifestyle by reading and researching about other countries. Since I have studied Italy, if I were to find an Italian and make business with him and in the process have small talk about Italy, I could make a deal between me and the Italian more appealing.
4. This course helped me become more culturally aware because I was able to compare the difference between American culture and many European cultures. Many European countries are still able to function as capitalist societies, that is to say maximize profits, while simultaneously taking care of the mental and physical health of their workforces. Whereas in American culture, workers are more disposable and do not reap the benefits of having health insurances or paid time off to take care of themselves.
5. I did not communicate with some from Slovenia, nonetheless I believe that with the information I learned I will communicate effectively in the future with people from other countries. I must keep on educating myself to be accepting of other cultures because I can see if there are better traditions that I can then adopt into my own.

Reflection 9, Fall 2020

This experience provided insights into the social and economic structure, politics, and traditions that are different from mine.

Through the use of innovative technology, a collaborative online international learning environment has made me learn and understand the different social and economic structures, politics of different countries that are different from mine. This has been made possible due to the integration of global learning into curricula students time-bound. Also, collaborative online learning facilitates interdisciplinary connections and has allowed me to make unique insights that are different from mine. For instance, every country has its own unique social and economic structure that favors its activities. Besides, a collaborative online learning experience offers a platform for the student to understand and compare different countries' political nature. Showing how its rules and regulations are governing various countries, and how social and economic structure shows the interaction and the relationship of different people from different places hence this has made it possible for me to understand the difference between my social and economic structure, politics traditions that are different from mine.

To what extent did taking this course helped you gain a different perspective on U.S cultural economics (especially as it relates to health economics)

Taking collaborative online courses, especially health economics, has helped me understand health economics' nature in the United States. According to the existing evidence, United States has the biggest and the best health economics globally, and its rapidly becoming the most significant source of employment in the United States and the in-world in general, more than other countries. Hence, this has made me realize the power of collective intelligence in the United States, and it has also helped me significantly develop a cross-cultural understanding when addressing the global issues while synthesizing information from various culture and cooperating in the world teams to collectively build on already existing knowledge as well as generating new knowledge. It has made me realize the United States' involvement in various global health programs such as WHO, hence this has made me aware of its impacts on the health care economy.

As a result of this course, will you be able to connect more readily on a personal and business level if/when the opportunity arises again to work with people overseas?

I will connect both on a personal and business level with people from overseas, having acquired the essential knowledge about their cultures by taking part in these networks of collaborative online learning. It has given me the chance to know the importance of interaction and creating a strong bond with other people from different nations. By acquiring skills and knowledge from different people has offered me the opportunity to learn and compare my own culture with other people's culture and accept them. Knowing the nature of different people and what they treasure is essential in doing business and connecting with them without making yourself different from them.

To what extent did taking this course help you grow in maturity and cultural self-awareness (awareness of our cultural preference and biases that of other cultures)

Taking part in collaborative online courses has made me understand the importance of accepting other people's cultures without biases. Learning about different cultures through this education system has made me feel more comfortable and safe with various life differences. Hence this has allowed me to interact in a broader range of social groups and feel more confident in myself, and create a good relationship with others from various countries.

Did this course help you learn how to communicate effectively across cultures, including the use of relevant technology?

This course has helped me immensely in knowing how to identify, access, evaluate media from all over the world, including various news globally that exist in different languages, and translate them into English. Hence this has help me to go deeper in understanding what is facilitating awareness of how and why different people, events, communities, and cultures are being explored in media and how this shows the distinction in contexts and adverse effects of cultural-understanding. Another impact of collaborative learning on me is its ability to develop me to have higher-level thinking skills, oral commutation, and self-management. Hence this has made me responsible and aware of different people, both overseas and local.

Reflection 10, Fall 2019

Through my Collaborative Online International Learning class I completely enlightened myself on the healthcare system in the United States and how it compares to other countries across the globe. I began the course knowing the U.S healthcare system is broken but I couldn't tell you specifically why. Having now done assignments that dealt with health economic statistics from the U.S and foreign governments all around the world, as well as having video conference's with students from Slovenia, I now having a much clearer understanding as to why our healthcare system is grossly inefficient and how other countries do it entirely better. I'd like to go into how our healthcare system works and compare it to other nations. Furthermore, I'll discuss why it's such an important skill to understand and be able to deal with people abroad with different cultures and traditions than us.

In the United States, we have a largely unregulated healthcare system in which private for-profit companies have all the power and the people have virtually no say. In America you get health insurance through your employer, if you don't have a job that provides health insurance then you have to pay for everything out of pocket which can cost a fortune. Even if you're so fortunate enough as to have health insurance from your job, very little is actually free. People still pay for a large portion of their health needs through what's called a deductible; Any amount of money spent on appointments or procedures is not covered until a predetermined dollar figure is reached. Others may have to pay a co-payment; a dollar figure spent each time you see a physician. These are just for seeing a doctor, as far as important (sometimes life or death) prescription medications, this is done separately. Often insurance companies don't cover medications entirely, so you have to pay out of pocket. There is very little competition for these medications so they own the market and can charge whatever price they'd like. An EpiPen which can save someone's life in the event of an allergic reaction, can cost up to 600 dollars for 2 pack. Often cancer saving treatments cost individuals hundreds of thousands, which bankrupts people. In our country, the profits of Corporations are valued more than the health of its citizens. Since congress is essentially paid for by big pharma lobbyist it'll never change.

In most other developed countries, healthcare is covered by the government and extremely regulated to benefit the people. Prices are negotiated by the government to be affordable and one can't be put into debt because of a lifesaving medication or operation. Just like how our government operates the police, firefighters and public schools- health cost is covered in other countries by the government, through taxpayers. There is also no middleman who charges a fortune to cover their administrative costs, advertising and self-profit interests. In the United States, we spend 17% of our GDP on healthcare, nearly double then that of Canada, Japan, Germany and France. All that money spent, and the US sees higher infant mortality rate, higher diabetes prevalence and lower life expectancy.

It is significant that in the world of finance that you can communicate and network with people from all over the world. This class really helped me comprehend how in other cultures they have different values

then in ours. In other developed countries people's well-being and health take precedent over corporations and physicians' pockets. In other nations doctors and drug producers can make a nice living, but they don't make out of this world salaries, the tradeoff is that people never have to worry about medical costs. In Michael Moore's *"where to invade next"* it's really shown how the only one who has to worry about going bankrupt is hospitals and drug producers, not people. I really feel as if having video conferences with people from Japan, Germany and Slovenia has well prepared me to communicate with and grasp other cultures ways of thinking. In the business world I feel like I'll be able to initiate working relationships with those abroad better than someone who only understands American values and is narrowminded enough to think there only one way of doing things (culturally, financially, and personally).

In conclusion, I've really come a long way in knowing how my countries government works and what takes precedence as a society. I've effectively also sharpened my communication skills, especially pertaining to people who are not American. I also now feel as if when working for financial company that operates globally, I'll feel comfortable speaking with someone who lives in a place such as Tokyo or shanghai.

Reflection 11, Fall 2019

During my time here at SUNY Old Westbury, I have taken many courses, but not one of them were as distinctive as Health Economics was. This course had an entirely different section attached to it, and it was by the name of "COIL". This stood for Collaborative Online International Learning, and this consisted of students in the United States effectively communicating and cooperating with students at the University of Ljubljana in Slovenia. If I will be honest, I was not aware of the fact that this class had the COIL section attached to it. I only learned of this after a week or two into the class. It did throw me off guard, but I was ready to accept a challenge and take on a new experience.

Generally, I am a versatile individual. However, there were definitely some troubles I experienced with this class. First and foremost, to try and coordinate with my Slovenian partners was nearly impossible. There was a significant difference in the time zones, and plus everyone had their outside lives. For example, one of my partners had gone to Austria and was gone an entire weekend, the time which we had both needed to complete an assignment. Unfortunately for me, I had gotten diagnosed with Walking Pneumonia when my partner arrived back to Slovenia, so I could not complete the assignment regardless. Another difficulty I experienced was the deadlines. In my opinion (and many others), the deadlines were too close together. We had coursework in the general Health Economics class to be completed, alongside with work in the COIL section. It was very overwhelming to try and get both done at the same time, considering the fact that for me personally, I was dealing with family emergencies left and right.

On the bright side of things, being able to speak with my partners opened my eyes to the world. My first partner was from Poland, and the other I got to speak to was from Italy and so I was able to get their insight as to how daily life is for them, and their opinions on a lot of the issues that we discuss here in the United States. More importantly, I asked them what they thought about the United States, President Trump, and how our healthcare system works. The responses I received left me shellshocked as their perspectives really spoke to me. My opinion is astronomically different living in this country than someone who does not and is on the other side of the world. We also discussed how healthcare is addressed in both of our respective countries, and how our governments function. I think this experience overall helped me grow as an individual. Being able to communicate with someone overseas really develops your personal character and makes you realize that the world is not JUST the United States. There's so much more out there, so much culture to be learned, and this experience was a foot in the door to do all those things. I am also grateful because although materialistic, I was able to learn to use Microsoft Excel proficiently due to this class. I believe that when I am seeking employment out of college, that I have a lot to offer. I aspire to be a Political Analyst for the Federal Government in Washington D.C., and with doing so, it would require me to take a look at how policy in the United States affects the entire world. I will never forget this experience.

Reflection 12, Fall 2019

This class has introduced me to a SUNY initiative called COIL. It's essentially a virtual study abroad experience. I had the opportunity to speak with international students studying in Slovenia and study health economics alongside them. COIL connected me to fellow students in another country. Together, we had developed collaborative projects such as investigating the differing healthcare systems in our respective country.

I've had the chance to speak with a student who is from Spain. He explained to me how Spain, like the U.S. also participates in a public and private healthcare systems, but the private industry is very affordable. I learned Spain's private industry acts more so as a supplement to the public option that most Spaniards are enrolled in. He was shocked when I described to him the realities of the private healthcare industry here in the U.S. Concepts such as medical debt and employment-based health insurance were those he was unfamiliar with. He, like myself, didn't believe that is a fair system. Through COIL, I was able to connect to with an international student through our differences.

COIL has helped me develop skills that I would be able to carry over with me into my professional career. For example, the time zone differences played a major role in organizing our meeting times. I strengthened my communication skills as I explained my other commitments that would conflict with our meeting times, as did the international students did with me. We worked together to address the geographical distance and found the time to collaborate. A cultural aspect of work etiquette COIL has taught me includes learning about productivity standards in different countries. The U.S. is different from other countries in that it strongly encourages and normalizes long workdays, such as staying past usual work hours to continue work, and then to continue work at home as well. My colleagues across the ocean taught me an appreciation to enjoy free time and step away from assignments after coming back from a long day of class. I believe it is more mature to take personal time off to relax as a preventative measure for burnout.

Another interesting aspect of COIL is how it helped me develop my cultural competency skills. There wasn't necessarily a language barrier because both courses were taught in English. However, due to our geographic locations, we have our own dialect of English, with differing accents that change the way we pronounce words and our rhetoric overall. I enjoyed exploring these cultural perspectives, and I'm glad I was provided this opportunity to engage with international students through online tools. COIL introduced me to new ideas as an enriching international education.

Reflection 13, Fall 2019

I have learned many things from this class that will forever be embedded in my mind. I loved the idea of meeting students from all over the world and learning about their healthcare. Each student had a different country that they were from and it made the assignments that much more interesting. The assignments were straight to the point and we were even provided with videos to help us. I personally wish that more teachers would teach this way because it was an experience of a life time. No other professor would go out of their way to help students physically see and experience how drastically different our healthcare is compared to other countries. The partners I was paired with for this class, both were very shocked at how expensive our healthcare system is. They were also shocked at how unorganized it was. No one really knows how our healthcare system is run and how they are being financed we all just know that it happens one way or another. When they told me that their drugs cost 10 dollars but if they do not have a job than it is free, I was in awe. Drugs are so high and we think that we are getting a good deal whenever we use our insurance but as I learned in class, sometimes it is actually cheaper to not use your health insurance. I also learned that in past time that pharmacists were not able to disclose information about which drug could be cheaper because pharma and insurance companies want to make the most profits. It was also interesting that using your insurance to pay for medications can at times be higher so what is the need to use your health insurance if it does nothing for you? It made me start to question why us as Americans do not have riots in the street when prices increase. It made me question why our government would willingly let pharmaceutical companies go crazy with the medication pricings. I personally feel that this course gave me insights that I do not believe I would have received otherwise. I believe this course can help me communicate with anyone and have strong data to prove my point in health economics. I am so grateful to have been given the opportunity to learn how universal healthcare is possible because everyone else in the world has it.

Reflection 14, Fall 2019

1. I had a great experience with COIL. I enjoyed working with the other college students from the University of Ljubljana in Slovenia. This experience has helped me understand the health care system, health insurance and economic structures of the US, Slovenia, Montenegro, and the Netherlands. For instance, in assignment 1 I examined the health care system in the US and Slovenia. For assignment 2 I examined the health expenditure and financing, health care resources, utilization and health status in the US and Montenegro. For assignment 3 I identified the health care expenditure and health care financing in the US and Netherlands.

2. Taking this course helped me gain a different perspective on US culture and economics because I was able to understand the US health care system (health insurance), health expenditure and financing, health care resources, utilization and health status, etc. For instance, in the US the GDP per capita in 2018 was 54,541.70. The number of physicians per 1000 people in 2014 was 2.57. The average life expectancy (age) in 2017 was 78. Preventive care in 2017 was 2.89 %. The government/compulsory schemas in 2017 was 26.30 %.

3. As a result of this course, I will be able to connect readily on a personal and business level with people overseas by understanding and strategizing what will be discussed. Also, I will interact with people respectfully and professionally and I will help create ideas and incentives.

4. This course helped me grow in maturity and cultural self-awareness by understanding the different cultures in the various countries that I studied. Also, I was able to examine how individuals view their cultural preference. For instance, for the coil assignments, I interacted with my partners by discussing their country's (Slovenia) culture and how they viewed their culture.

5. This course helped me learn how to communicate effectively across cultures by interacting with college students from another country and learning about their culture and their experiences with the healthcare system financing and production etc. Furthermore, I was able to examine what the US, Slovenia, Montenegro, and Netherlands spends on their healthcare system and an individual's health.