ANALELE ŞTIINŢIFICE ALE UNIVERSITĂŢII „ALEXANDRU IOAN CUZA” DIN IAŞI
TOMUL XV/1, SOCIOLOGIE ŞI ASISTENŢĂ SOCIALĂ, 2022
DOI: 10.47743/ASAS-2022-1-680

ENSURING GOOD HEALTH AND WELL-BEING FOR ALL. A COMPARATIVE ANALYSIS OF THE TARGETS OF THE THIRD UNSDG'S OBJECTIVE IN 7 EUROPEAN COUNTRIES

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Abstract
All the European Countries are concerned about Sustainable Development Goals and the Agenda 2030 formulated by ONU and imposed globally. As an example, for the Virtual Institute „Good Health and Well-being” from the European campus of City-Universities project, (www.ec2u.eu)the central topic of analysis is the third objective: „Ensuring Good Health and Well-being for All". Taking advantage of the structure and functionalities of this project of University Alliances (EC2U), we tried in this article to make a comparative analysis between the seven member countries from the perspective of the targets of the third objective of sustainable development. The comparative results show accents, similarities and differences; highlight the starting points for further, in-depth analysis for the development of policies and measures.

Keywords: health for all, good health, well-being, GLADE Virtual Institute, Sustainable Development Goals, EC2U.

Résumé
Tous les pays européens sont concernés par les objectifs de développement durable et l'Agenda 2030 formulés par l'ONU et imposés au niveau mondial. À titre d'exemple, pour l'Institut virtuel „Good Health and Well-being” du projet européen Campus Européen des Cités-Universités (www.ec2u.eu), thème central d'analyse est le troisième objectif : „Assurer la bonne santé et le bien-être pour tous”. Profitant de la structure et des fonctionnalités de ce projet d'Alliances Universitaires (EC2U): nous avons essayé dans cet article de faire une analyse comparative entre les sept pays membres du point de vue des cibles du troisième objectif de développement durable. Les résultats comparatifs montrent des accents, des similitudes et des différences ; met en évidence les points de départ d'une analyse plus approfondie en vue de l'élaboration de politiques et de mesures.

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Mots clés: santé pour tous, bonne santé, bien-être, Institut virtuel GLADE, Objectifs de développement durable, EC2U.

Rezumat
Toate țările europene sunt preocupate de Obiectivele de Dezvoltare Durabilă şi de Agenda 2030 formulate de ONU şi impuse la nivel global. De exemplu, pentru Institutul Virtual Sănătate Bună şi Stare de Bine realizat în cadrul proiectului de Alianţe Universitare „Campus European de Universităţi şi Oraşe" (EC2U) tema centrală de analiză este cel de-al treilea obiectiv: „Asigurarea unei bune sănătăți și bunăstare pentru toți". Profitând de structura şi funcţionalităţile acestui proiect de Alianţe universitare – EC2U: European campus of City-Universities (www.ec2u.eu) -, am încercat în acest articol să facem o analiză comparativă între cele şapte țări membre din perspectiva ţintelor celui de-al treilea obiectiv de dezvoltare durabilă. Rezultatele comparative arata accente, asemănări şi diferenţe; evidenţiază puncte de pornire pentru analize ulterioare, aprofundate, pentru dezvoltarea de politici şi măsuri.

Cuvinte cheie: sănătate pentru toți, sănătate bună, stare de bine, Institut Virtual GLADE, Obiective de dezvoltare durabilă, EC2U.

1. Introduction

The 2030 Agenda for Sustainable Development (established by United Nations – *UN* - in September 2015) is a plan of action for sustainable development for all countries of our planet. This Agenda contains 17 Goals and subsequently 169 targets that cover, at the same time, the economic, social and environmental domains. The 17 goals are the following: „1. No poverty, 2. Zero hunger, 3. Good health and well-being, 4. Quality education, 5. Gender equality, 6: Clean water and sanitation, 7. Affordable and Clean Energy, 8. Decent Work and economic growth, 9. Industry, innovation and infrastructure, 10. Reduced inequalities, 11. Sustainable cities and communities, 12. Responsible consumption and production, 13. Climate action, 14. Life below water, 15. Life on land, 16. Peace Justice and strong institutions, 17. Partnerships for the goals."

In some pragmatic announcements[3] is stipulated that all that goals have some precise means of implementation: a new solidary and global partnership, the implication of each country at all levels (public, private sector, civil society), international public finance etc.

What is relevant is that in the entire world some regional mechanisms or state superstructures took over the goals to disseminate and deepen them among their members (e.g., the European Commission, The Forum of the Countries of Latin America and the Caribbean on Sustainable Development, Asia-Pacific Forum on Sustainable Development etc.) or linking with larger projects (e.g., Africa Union Agenda 2063). At the same time numerous sociological research or projects have as their starting point for education, innovation and research, one or more objectives of *the 2030 UN Agenda* (e.g., sociological research in an EU project called „Shaping Fair Cities: Integrating Agenda 2030 within Local Policies in Times of

[3] See for example https://sdgs.un.org/2030agenda

Great Migration and Refugees Flows", coord. Regione Emilia-Romagna, 2018; European Universities Initiatives[4] – as *EC2U* - European Campus of City-Universities etc.)

In our article, we intend to make a transversal observational study of the 17 targets from the Third objective of the *UN Sustainable Development Agenda*: „Ensuring Good Health and Well-Being for All" - applied to seven European countries – Finland, France, Germany, Italy, Portugal, Romania, Spain -, from where seven partner universities are in the EC2U project.

The current analysis is focused on the targets of the Third goal from the *UN 2030 Agenda*: „Ensuring Good health and well-being for all". Our comparative analysis is a starting point for future debates to be developed in future activities and to offer issues for cooperation between researchers, teachers, doctoral and master students, administrative staff and partners from all the involved European cities.

2. The context of the study

Seven universities - University of Turku (Finland), University of Poitiers (France; coordinator), „Friedrich Schiller" University Jena (Germany), University of Pavia (Italy), University of Coimbra (Portugal), „Alexandru Ioan Cuza" University of Iaşi (Romania), University of Salamanca (Spain) alongside with 30 associated partners from the seven above mentioned countries are working together to build a „European Campus of City-Universities" (EC2U) benefiting, among other 40 alliances, by an Innovative European Initiative under the Erasmus + 2021-2027 programme.

This initiative aims to contribute to strengthening „strategic partnerships across European Union higher education institutions, […] consisting in bottom-up networks of universities across the EU which will enable students to obtain a degree by combining studies in several EU countries and contribute to the international competitiveness of European universities" (European Council *Conclusions*, Dec. 2017). The initiative is closely monitored by European institutions, as a „flagship" for higher education and as a „testbed" for new common degrees.

The European Strategy for the Universities (EC SWD (2022) 6 final) it is underlined the role of universities „can better solve big societal challenges by engaging more effectively in transnational cooperation" (p. 2). This engaging role of the universities should be grounded on analyses and research, on data filing the bottom-up approach.

This paper aims to look for and compare available and reliable data related to the seventeen targets (as they are stated by the UN[5]) associated with the *Third*

[4] As it is announced at: https://education.ec.europa.eu/education-levels/higher-education/european-universities-initiative

[5] See: https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-3-good-health-and-well-being.html#targets

goal of *the 2030 Agenda for Sustainable Development*: „Ensuring Good Health and Well-being for All".

The analyse is one of the first actions in the frame of the newly developed *Virtual Institute for Good health and well-being*, as part of the EC2U project.[6]

3. Methodology of data gathering and analysis

This research is an empirical study based on secondary data analysis. To perform the analyse, each of the seventeen targets of the *Third goal* of *the 2030 Agenda for Sustainable Development* - „Ensuring Good Health and Well-being for All" – is defined according to the UN vision and other significant references.[7] The second step was to identify any reliable data source as the official source of figures related to the conceptual ground of the target analysed. The main data sources selected are from the following categories:

a. Global: WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division;
b. European: EUROSTAT,
c. National: National Institute for Statistics, Romania; National Institute of Public Health, Romania;

For each of the analysed targets, a European average was calculated and included, as a reference for the reader. Where considered appropriate, some national examples and contexts – especially from the country the coordinating university of *the Virtual Institute for Good Health and Well-being* belong to, Romania - support the arguments, challenges and analyses (Şoitu, 2020; Şoitu, 2021). The statistical data used is the one available from October-December 2020. Where the data were older than this period, the latest available statistics have been used.

We specify that in this article we detail the first 9 targets (called 'numerical and topic targets') following that in future studies we will also analyse the last four targets (called 'systemic targets').

4. Results. Comparative descriptive data and analysis

The targets of the Third SDG of the 2030 Sustainable Development Agenda[8] are defined and analysed in their subsequent order. For a better reading, the authors opt to maintain the definitions and targets in this chapter, together with the current (or the latest available) statistical data in the European Union (as

[6] The Institute is coordinated by „The Alexandru Ioan Cuza" University of Iasi, involving representatives from all 7 EC2U partner universities. Contents are available at: www.ec2u.eu and https://www.uaic.ro/international/glade-virtual-institute/

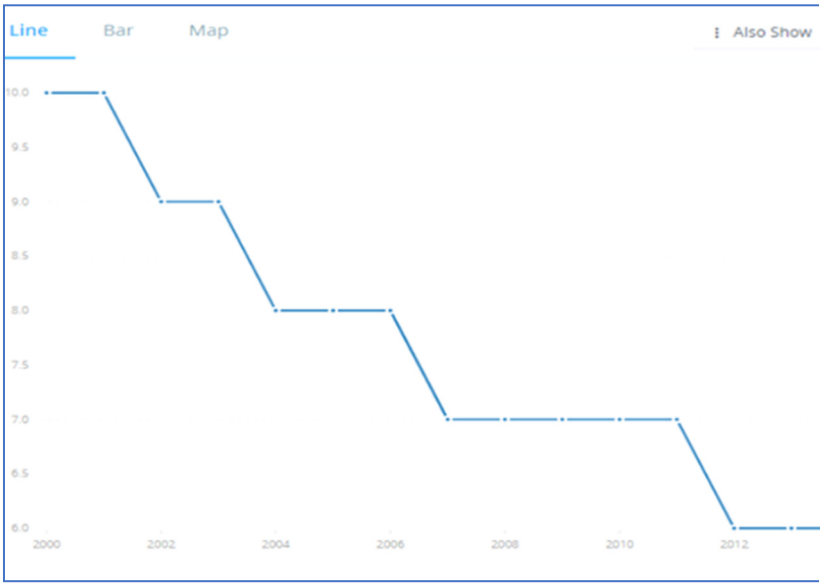
[7] A full description and the aimed targets are provided in chapter 4, individually, for each, together with the comparative data and critical topics and facts.

[8] Explained in detail at https://unstats.un.org/sdgs/metadata (in this article the term „metadata" is related to the explanations from this site)

average) and in the seven countries where the EC2U universities came from Finland, France, Germany, Italy, Romania, Spain, Portugal.

1. Maternal mortality ratio (MMR)

MMR represent „the number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100,000 live births". This United Nations (UN) target proposes to „reduce the global maternal mortality ratio (MMR) to less than 70 per 100,000 live births", by 2030. In the metadata documents is specified that the World Health Organization (WHO) via the „Department of Sexual and Reproductive Health and Research" is responsible for global monitoring of this issue but the data collection is ensured by The UN „Maternal Mortality Estimation Inter-Agency Group". At the European level the evolution of this index was:



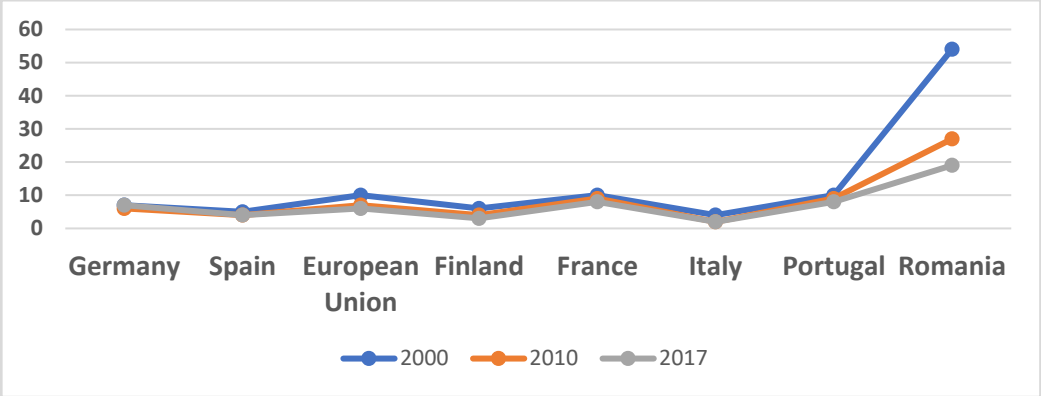
Graph 1. The evolution of the maternal mortality ratio in the EU between 2000-2016 years[9]

Source: https://data.worldbank.org

At the EU level, that ratio is stabilized at 6/100000. The global situation is different in other countries and UN documents provide a general target for all (by 2030, no country should have an MMR bigger than 140). In 2017, MMR in the world's least-developed countries was almost three times bigger than this target: 415/100 000.

[9] For other details see: „*Trends in maternal mortality 2000-2017 - Estimates* by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division" (2019).

Comparative data on MMR for the seven countries analysed shows a decrease in numbers, most obvious for Romania – in 2017, less than half of the average from 2000:



Graph 2. Evolution of maternal mortality ratio for seven countries: Germany, Spain, Finland, France, Italy, Portugal, Romania and the average in European Union

Source: https://data.worldbank.org

Critical facts

WHO[10] draws attention to some key facts:
- in 2017, on each day, approximately 810 women died from preventable causes related to pregnancy and childbirth.
- Between 2000 and 2017, the maternal mortality ratio (MMR) dropped by about 38% worldwide.
- 94% of all maternal deaths occur in low and lower-middle-income countries.
- Young adolescents (ages 10-14) face a higher risk of complications and death because of pregnancy than other women.
- Skilled care before, during and after childbirth can save the lives of women and new-borns.

From the cited site, according to Say, Chou *et al.* (2014) the major complications that account for nearly 75% of all maternal deaths are bleeding and infections (usually after childbirth), pre-eclampsia and eclampsia, complications and unsafe abortion.

In Romania, the collection of data is the responsibility of the National Institute of Public Health (INSP) which has two sources: the National Institute of Statistics (I.N.S.) and *Maternal Death Record through the complications of pregnancy, birth and childbirth* delivered by the National Centre for Statistics and Informatics in Public Health (C.N.S.I.S.P.). In the last publication of INSP –CNSISP (2000) we

[10] https://www.who.int/news-room/fact-sheets/detail/maternal-mortality

can observe some differences in comparison with the World Bank Data estimations (in any case, the significant decrease in the values of the index is confirmed).

The same material draws attention to the situation of abortions (one of the main causes of maternal mortality) considering their liberalization in Romania after 1990. For example, in 2021 the ratio between abortions and live births was 3.1, while in 2020 it dropped to 0.1! One of the critical periods in the history of Romania was between 1967-1990 when thousands of young mothers died following the initiation of illegal abortions (Trebici, 1991).

All these findings have strongly returned to public attention with the new public debate about the abortion problem in many European countries and of course in all seven countries analysed, with a very interesting point for future debates and analysis.

2. The new-born and children under 5 mortality (under 5 mortality rate)

From the metadata documents, the under-five mortality rate is defined as: „a probability of a child born in a specific year or period dying before reaching the age of 5 years expressed as deaths per 1000 live births".

The UN pragmatic issue proposes to „reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births". In this case, are introduced „neonatal mortality" defined as the „intensity of mortality in the first 28 days of life or even in the first month". We observed that the classical index of „infant mortality" (defined as the intensity of mortality for children under one year) is effectively included in this under-five mortality rate.

In the same metadata, documents specified that the collection of such data is the responsibility of UNICEF and the United Nations *Inter-Agency Group for Child Mortality Estimation* (UN IGME). The sources of data are very diverse: household surveys, censuses, and vital registration data.

A comparative situation between the seven analysed countries and the evolution of the data in three different years (2000, 2010 and 2019) shows a decrease in numbers towards more than half - one-third (for Romania).

Some clarifications related to this subject:

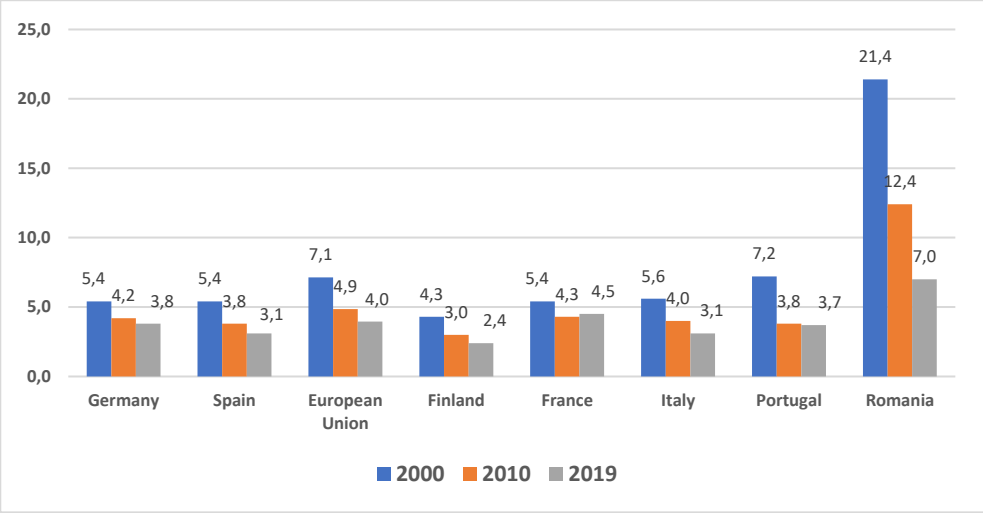
- a study of infant mortality should be done by age intervals and by causes of death.

- by age category, a distinction is made between early mortality (from the first 6 days of life), neonatal mortality (referring to the intensity of mortality in the first 28 days of life or even in the first month), post-neonatal mortality (referring to the mortality of children with age between 1 month and 11 months, without reaching the age of 1 year).

- the notions of „perinatal mortality" (which sums up the deaths in the first week of life to which are added stillbirths) are also used, but also of stillbirth (which sums up the number of stillbirths compared to 1000 live births).

- the EU average infant mortality was 3.6 deaths in 2016.

- we must continue to look at the causes of endogenous mortality and exogenous mortality.



Graph 3. The under-five mortality rate in the EC2U 7 countries and the average in European Union

Source: https://data.worldbank.org

At the global level WHO[11] add some important keys:

- „In 2020 an estimated 5 million children under the age of 5 years died, mostly from preventable and treatable causes" - from these, approximately 2.4 million represent neonatal mortality".

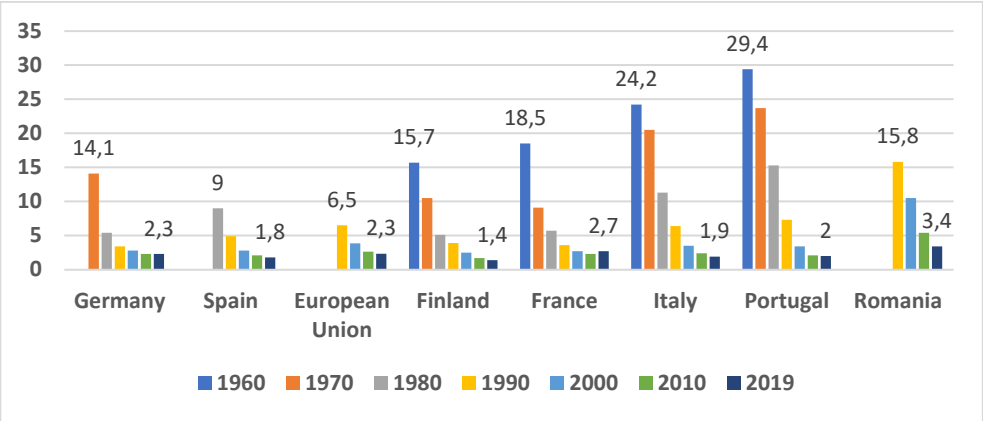
- „The sub-Saharan region continued to have the highest rates of mortality in the world (74 deaths per 1000 live births) - 14 times higher than the risk for children in Europe and North America".

- „The leading causes of death in children under 5 years are preterm birth complications, birth asphyxia/trauma, pneumonia, diarrhoea and malaria, all of which can be prevented or treated with access to affordable interventions in health and sanitation".

- „SARS-CoV-2 infections among children and adolescents typically cause less severe illness and fewer deaths as compared to adults."

If we refer only to neonatal mortality, in the last 60 years there was a reduction in numbers (Graph 4) in the 7 analysed countries and the EU average.

[11] https://www.who.int/news-room/fact-sheets/detail/levels-and-trends-in-child-under-5-mortality-in-2020

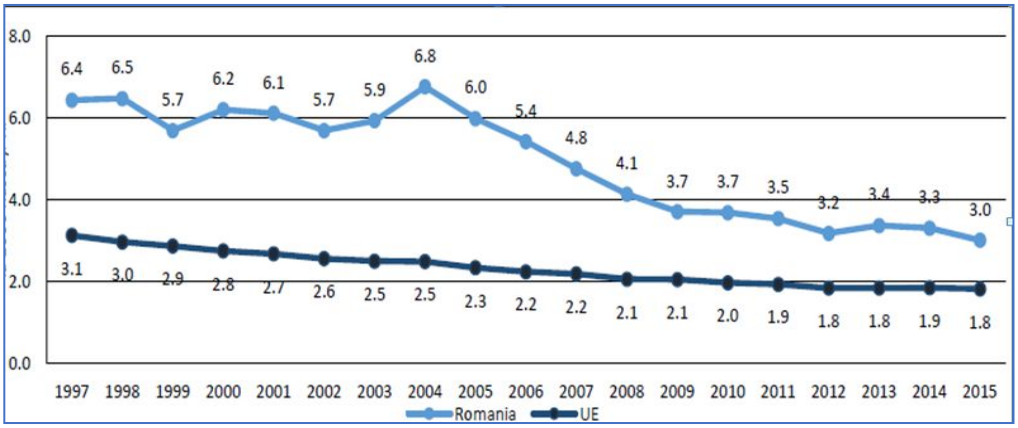


Graph 4. The comparative neonatal mortality rate in the EC2U 7 countries and the average in European Union (1960-2019)

Source: https://data.worldbank.org

Note: To avoid reading difficulties, we chose for each country to stipulate only the maximum and minimum values. There is no data where a vertical bar is missing.

Regarding the early neonatal mortality rate, we considered it necessary to highlight the evolution of this index in Romania compared to its evolution at the European level (see next graph).



Graph 5. Evolution of the early neonatal mortality rate in Romania and the average in the European Union (1997-2015)

Source: WHO / Europe, European HFA Database (OY axis-data at 1000 live births)

The evolution of the data is gratifying but the target remains the descent to the European average.

3. Epidemics: ending targets and aims for prevention of communicable diseases

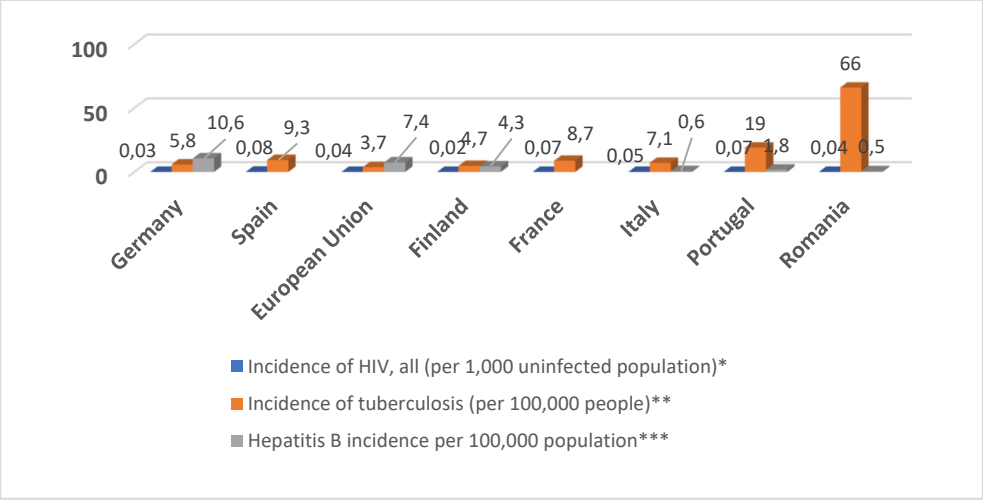
The target, in this case, is very clear and ambitious: „by 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases."

From the metadata documents there are some observations about the tracked indicators:

Table 1. Indicators and responsible international organizations

Disease	Indicators (explained)	International organisations(s) responsible for global monitoring
HIV	"The number of this infection per 1 000 uninfected population, by sex, age and key populations"	The Joint United Nations Programme on HIV/AIDS (UNAIDS)
Tuberculosis	"number of cases per 100 000 population"	World Health Organization (WHO)
Hepatitis	"incidence per 100 000 populations"	World Health Organization
Malaria	"incidence per 1 000 populations"	Global Malaria Programme at World Health Organization (WHO)
Neglected tropical diseases	"number of people requiring interventions"	World Health Organization

All the following data can be traced on separate graphs but we present them as they appear in various statistics worldwide':



Graph 6. Epidemics of AIDS, tuberculosis, hepatitis (2019)

Sources:
**World Bank*
***WHO (2020).Tuberculosis surveillance and monitoring in Europe (2018)*
****ECDC (2019). Hepatitis B. Annual Epidemiological Report for 2019*

Some observation:

- there are no data about malaria and neglected tropical diseases for EU aria (they are eradicated in Europe, but risks are coming from newcomers, especially from Africa). In a recent article Boualam, Pradines *et al.* (2021) mentioned that although endemic malaria was eradicated from Europe by the mid-20th century, unfortunately in 2019 they registered „229 million new cases and 409,000 deaths mainly in Africa".

At the European Union level[12], several policy areas, programs and instruments are involved in the fight against these major diseases:

- improving public health strategies (Union action shall complement national policies)
- ensuring access to treatments
- warning of risks for transmission through blood or transplants (in case of HIV and hepatitis)
- combatting antimicrobial resistance
- vaccination
- warning of a high-risk group for infectious diseases, in particular, HIV and/or viral hepatitis (for people who inject drugs)
- support to a global fund to fight HIV/AIDS, tuberculosis and malaria
- European neighbourhood policy (cross-border cooperation) etc.

There are reasons for concern as the newly reported cases of HIV and tuberculosis and late-diagnosed HIV and tuberculosis.[13]

4. Premature mortality from non-communicable diseases

The ONU target 3.4 proposes that „by 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being". This target relates to two dimensions:

a. "mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease"
b. "suicide mortality rate".

a. In the statistical data exposed by United Nations Economic Commission for Europe (UNECE)[14] is stipulated that „mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease is the probability of dying between the ages of 30 and 70 years from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases, defined as the per cent of 30-year-old-people who would die before their 70th birthday from cardiovascular disease, cancer, diabetes,

[12] EC (2018). *Commission Staff Working Document on Combatting HIV/AIDS, Viral Hepatitis and Tuberculosis in the European Union and Neighbouring Countries – State of play, policy instruments and good practices*, European Commission, Brussels.

[13] See OECD/EU (2018), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*, OECD Publishing, Paris. https://doi.org/10.1787/health_glance_eur-2018-en

[14] https://w3.unece.org/SDG/en/Indicator?id=93

or chronic respiratory disease, assuming that s/he would experience current mortality rates at every age and s/he would not die from any other cause of death (e.g., injuries or HIV/AIDS)". From a comparative point of view, we preferred to present data for our country cumulating all the rates in one rate value to emphasize the gaps between gender. The situation is presented in the next table:

Table 2. Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease

Country	Period	Rate value	Gender Gap
France	2010	11.8	7.8
	2015	10.8	7
Portugal	2010	12.1	9
	2015	11.2	8.6
	2016	11.1	8.5
Romania	2010	23.4	16.1
	2015	21.5	15.4
	2016	21.4	15.4
Finland	2010	11.8	7.8
	2015	10.5	6.6
	2016	10.2	6.1
Spain	2010	10.7	8.4
	2015	10.1	7.4
	2016	9.9	7.2
Germany	2010	13.1	7.3
	2015	12.5	6.9
	2016	12.1	6.3
Italy	2010	10.3	5.8
	2015	9.8	5.1
	2016	9.5	4.8

Source: UNECE.org[15]

In the table above we see the gap between gender in the sense that males are more exposed to these causes of death. We have here a confirmation of male super mortality.

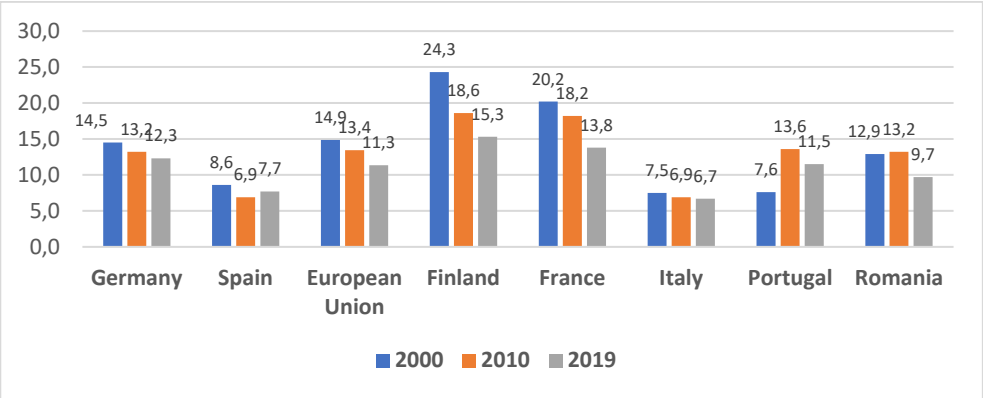
b. Suicide mortality rate

From the metadata documents, the *suicide mortality rate* is defined as „the number of suicide deaths in a year, divided by the population, and multiplied by 100 000". Globally, World Bank reports a steady decline in suicide rates: from 12.96 in 2000 to 9.17 in 2019.

In 2019 from our region the highest rates were in Lithuania (26.1), Russian Federation (25.1), Ukraine (21.6), Belarus (21.2), Latvia (20.1), Slovenia (19.8), Belgium (18.3), Hungary (16.6)[16] etc. The evolution of the data for the countries in our project was as follows:

[15] *Ibidem*

[16] Data from https://data.worldbank.org/indicator/SH.STA.SUIC.P5



Graph 7. Suicide mortality rate in the EC2U 7 countries and the average in European Union (2000-2019)

Source: World Bank

In this graph we observed higher rates in Finland and France followed relatively closely by Germany. Unfortunately, suicide in Finland takes place at a higher rate than the European Union average! We cannot develop this topic here, but we mention a possible starting point for future research: Finland's falling mental health spending and high suicide rates (cf. OECD[17]). Other comparative analyses can be deepened by the trends specific to each country and by gender differences!

5. *Prevention and treatment of substance abuse*

Target 3.5 refers to „strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol".

Consulting the metadata, we observed that at this target we refer at:

a. Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders that refer to the „number of people who have received different treatment interventions in the last year divided by the actual number of the target population (people with substance use disorders measured as the total number of problem drug users)".

b. Alcohol per capita consumption (the minimum age -15 years) measured in litres of pure alcohol (but within a specific period).

Starting from OECD/EU (2018)[18] we can remind some warnings for young generations:

- the risks of smoking in childhood and adolescence, on average, in EU countries are significant. 25% of the 15/16-year-old adolescents „reported smoking in the past month" (2015).

- the risks related to drinking alcohol ("about half of the European adolescents started drinking alcohol at the age of 13 or even younger, and almost

[17] https://www.oecd.org/els/health-systems/MMHC-Country-Press-Note-Finland.pdf

[18] OECD/EU (2018), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*, OECD Publishing, Paris. *https://doi.org/10.1787/health_glance_eur-2018-en*

10% have been drunk at least once by the age of 13"; by age 15/16 „over 80% of adolescents report having tried alcohol at least once in their life, and half say that they have consumed alcohol in the past month" (apud ESPAD, 2016).

- the risk related to cannabis consumption ("close to one in five 15–16-year-old (16%) in EU countries report having consumed cannabis at least once during their lifetime, and 7% say that they have consumed cannabis in the past month. The proportion of 15–16-year-olds reported to have consumed cannabis the past month is highest in France (17%) and Italy (15%), and the lowest in Finland and Sweden (2% only)". The lifetime use of at least one illicit drug other than cannabis at age 15-16 is 6% on average across EU countries

- Illicit drug consumption among adults.

"Over a quarter of adults in the European Union aged 15-64 - over 92 million people - have used illicit drugs at some point in their lives. In most cases, they have used cannabis, but some have also used cocaine, amphetamines, ecstasy and other drugs" (EMCDDA, 2018).

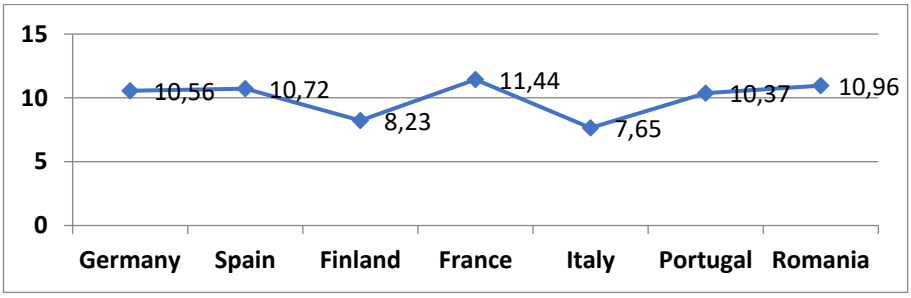
For our countries on the site https://ourworldindata.org/, we can obtain different sorts of data. We present some data:

Table 3. The share of people who received treatment intervention

Countries	Opioids %	Cocaine %	Amphetamine-type stimulants %
Germany	23.4	20.82	20.69
Spain	16.36	20.58	-
Finland	-	-	-
France	85.71	-	-
Italy	39.2	28.2	-
Portugal	59.21	3.62	-
Romania	8.9	-	-

Source: https://ourworldindata.org

Related to alcohol consumption the situation is in the next graph:



Graph 8. Annual per capita consumption of alcohol (in litres)

Source: https://ourworldindata.org

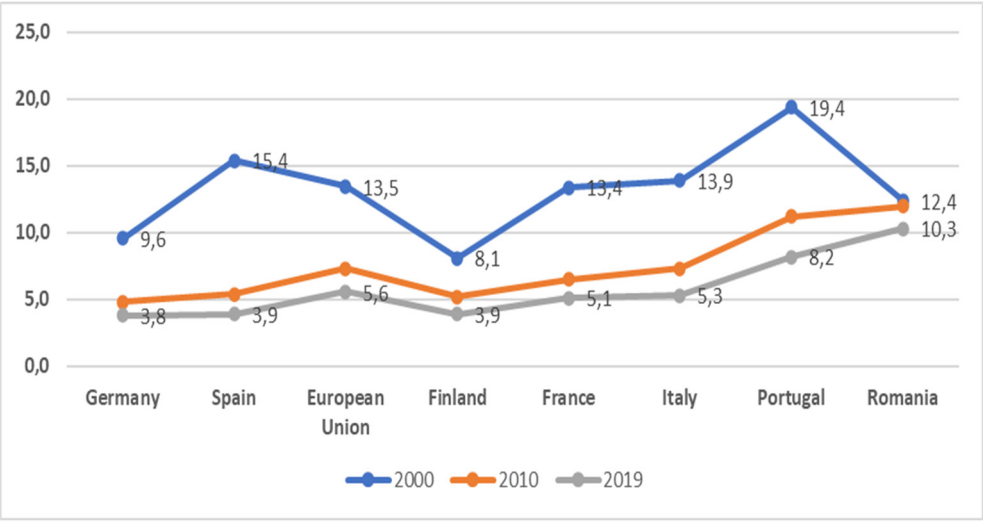
Unfortunately, all that data is difficult to analyse because of illicit or no declared consumption. Instead of conclusions, from already cited *SDG indicator*

metadata we want to specify that „according to UNODC and WHO data, around 271 million people aged 15 to 64 years worldwide used an illicit drug at least once in 2017, about 2.3 billion people are currently drinkers of alcohol, some 35 million of people suffer from drug use disorders and 289 million from alcohol use disorders".

6. Reducing road traffic accidents

Target 3.6 is that „by 2020, halve the number of global deaths and injuries from road traffic accidents".

For our metadata - the death rate due to road traffic injuries „is defined as the number of road traffic fatal injury deaths per 100,000 population". The sources of data are „The Global Status Report on Road Safety" and ministries of health from the state's members. For our country comparative data can be viewed in the next graph:



Graph 9. Mortality caused by road traffic injury (per 100 000 population) in the EC2U 7 countries and the average in European Union (2000-2019)

Source: World Bank (2019)

Unfortunately, we can observe higher data in Romania and Portugal. The problem of road traffic injuries remains very current and the WHO[19] warned that we count approx. 1.3 million victims of car accidents every year most of them being children and young adults aged 5-29 years. Many victims are other than car drivers: pedestrians, cyclists etc.

At the European level, there are supplementary strategies[20] of which we mention the following:

[19] See https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries
[20] See https://ec.europa.eu/transport/road_safety/eu-road-safety-policy_en

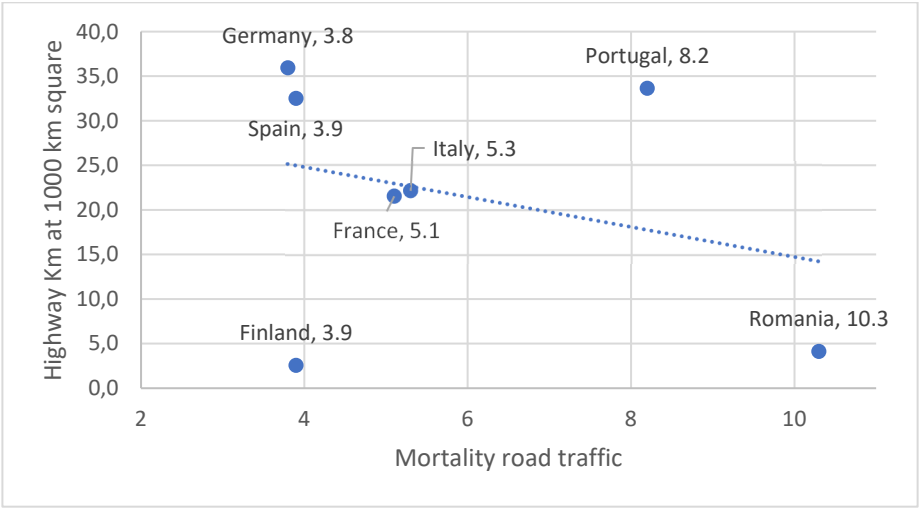
1. Vision Zero (Sweden) – to reduce road deaths to almost zero by 2050 (following the example of the most successful countries in terms of road safety).

2. EU Road Safety Policy Framework 2021-2030 - Next steps towards „Vision Zero" (safe vehicles, safe infrastructure, safe road use; less car use in cities combined with safer environments for pedestrians; systematic risk mapping and safety rating etc.

3. Declaration of Valletta by EU transport ministers.

Returning to the Romanian case, let's remember that European Representation Office (which is a compensation company) listed[21] the main causes of traffic accidents: are „speed, irregular crossings of pedestrians and the failure to give priority to pedestrians regularly employed in the crossing". Another important risk in Romania is the state of infrastructure. There are too few highways in Romania, and the traffic is carried out on the roads without direction separators, with a single traffic lane, which favours the occurrence of accidents. Of these, those produced in the event of a frontal impact are the most dangerous, with very serious consequences for drivers and passengers (just 8% of accidents in the EU take place on highways!) - as specified in the press release of the official cited above.

Starting from the findings above, we deduce that an increase in the distances on the highways is associated with a reduction in road accidents. We can see this fact (for our seven countries) in the following graph:



Graph 10. Scatterplot with mortality road traffic/Highway km

Source: World Bank (2019)

Observation: we preferred to construct the y-axis as a ratio between km of highway and the surface of a country. The regression line confirms that there is a reverse association between variables. Most of these countries are stabilized

[21] See https://birouleuropean.ro/cauzele-accidentelor-rutiere-in-romania/

around the value of 4 and 5 death people in road traffic/100 000 population. Romania's high rate is associated with the rarity of highways!

7. Universal access to reproductive healthcare services

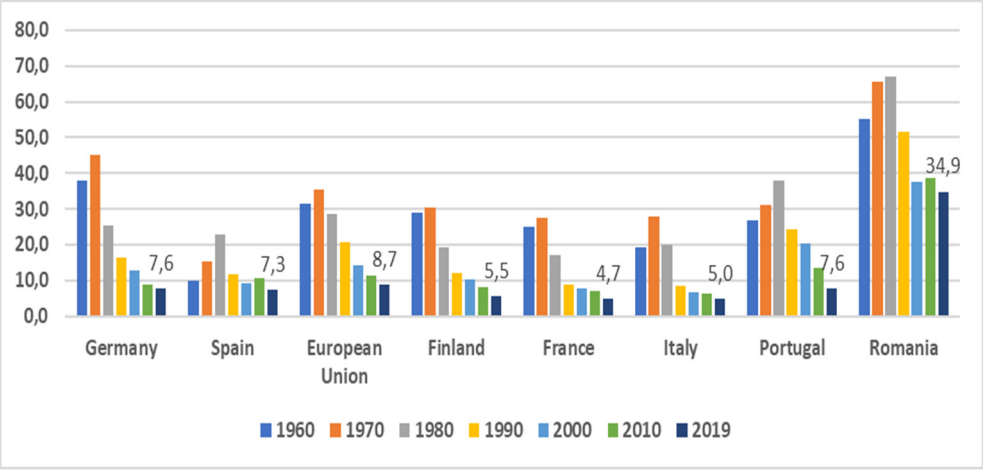
Target 3.7 aims: „by 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs".

From the remarks of metadata this target has two indicators:

- „Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods".
- „Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1,000 women in that age group".

United Nations in his publication named *Estimates and Projections of Family Planning Indicators* (2021) stipulates that for all our seven countries the proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods are minimum 80% between 2025-2030 years.

An important socio-demographic problem related the access to planning services is the fertility of underage girls (10-19 years). From the database of the World Bank, we prefer to present just the adolescent fertility rate (births per 1,000 women ages 15-19). The evolution of data for our EC2U 7 countries is presented in the following graph (we detailed just the data for the year 2019):



Graph 11. Adolescent fertility rate (births per 1000 women ages 15-19) in the EC2U 7 countries and the average in European Union (1960-2019).

Source: World Bank

Observation: We notice the higher data in the case of Romania, which explains the magnitude of the national debate on sex education in schools. So far

there is no single strategy for this type of education and various segments of the population are divided. According to the National Institute of Statistics (INS) in 2018 in Romania, 727 adolescents under the age of 15 and 18.753 between the ages of 15 and 19 became mothers in Romania. From teenage mothers under the age of 15, 19 are in their second birth and one in their third. Also, of the adolescent mothers aged 15-19, 3.929 are at the second birth, 731 at the third, 72 at the fourth, 8 at the fifth and one at the sixth.[22]

8. The universal health coverage

Target 3.8 is aimed to „achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all." From the remarks of metadata this target has two indicators:

- „Coverage of essential health services"
- „Proportion of population with large household expenditures on health as a share of total household expenditure or income"

Essential health services are defined as „the average coverage of services based on tracer interventions that include reproductive, maternal, new-born and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population".

According to the „Universal Health Coverage Service Index" the data comprised in the *Coverage index for essential health services* is „based on tracer interventions that include reproductive, maternal, new-born and child health, infectious diseases, noncommunicable diseases and service capacity and access)". It is represented on a scale from 0 to 100. In the next table we present the data for our seven countries:

Table 3. Coverage index for essential health services in the EC2U 7 countries

Countries	**UHC Service Covering Index**
Germany	83
Spain	83
Finland	78
France	78
Italy	82
Portugal	82
Romania	74

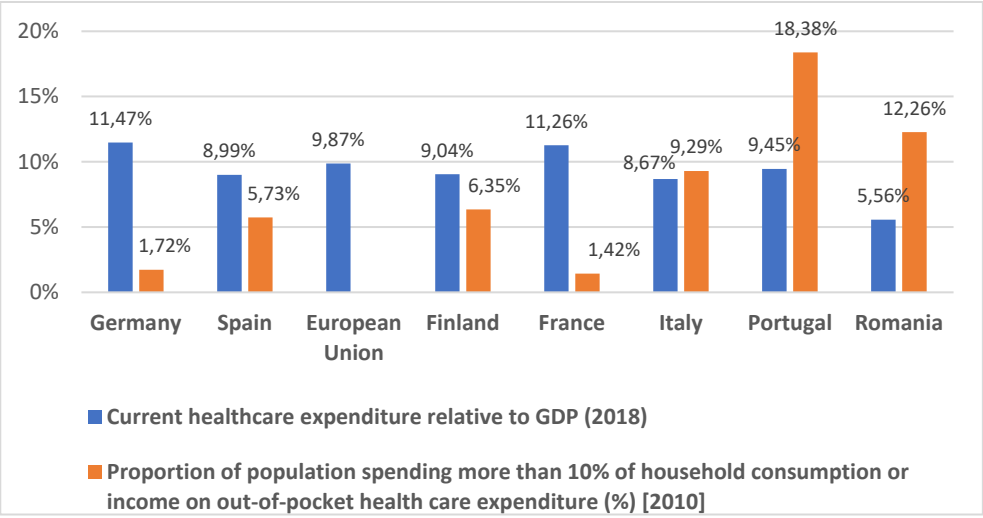
Source: WHO. *Primary Health Care on the Road to Universal Health Coverage* 2019. Monitoring Report Conference Edition

From this table, we notice the high values of the index for all seven countries in EC2U. For the deepen future research it is necessary to detail the way of calculating this statistical index to understand every dimension: reproductive

[22] See on site https://www.edupedu.ro/introducerea-educatiei-sexuale-in-scoli-ca-disciplina-obligatorie-sub-denumirea-de-educatie-sexuala-sustintuta-de-ministrul-educatiei-care-spune-ca-este-nevoie-si-de-educatie-parentala/

maternal new-born and childbirth, infectious disease control, noncommunicable diseases, service capacity and access (see source already cited).

For the second indicator which refers to a population with large household expenditures on health we preferred to present two kinds of data: „the healthcare expenditure relative to GDP" (Eurostat, 2018) and „the proportion of population spending more than 10% of household consumption on health (%)" (World Bank, 2010). The results are presented in the next graph:



Graph 12. Healthcare expenditure relative to GDP (2018)/Proportion of population spending more than 10% of household consumption on health (%) [2010]

Sources: Eurostat, World Bank

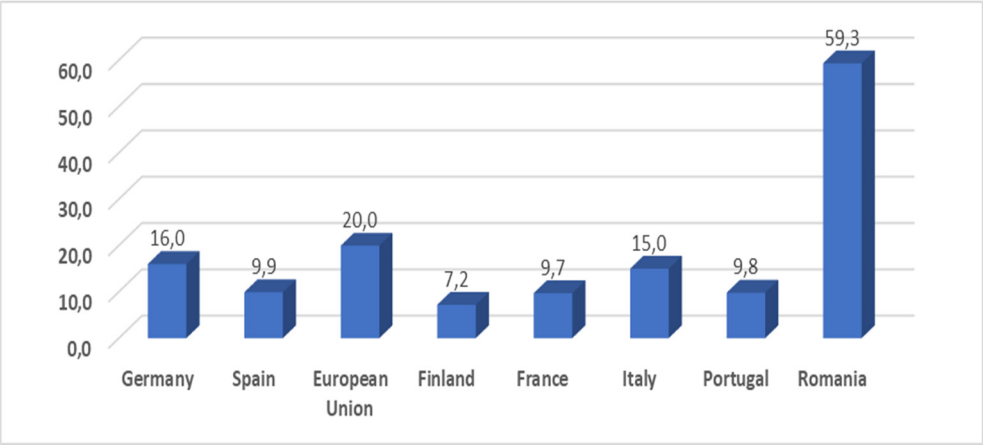
We intended to analyse an eventual correlation between the two sets of data: we obtained no significative correlation (there is no correlation between the two data sets).

9. Reduce the number of deaths and illnesses (from diverse causes)

Target 3.9 looked for: „by 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination". From the remarks of metadata this target has three indicators:

1. „Mortality rate attributed to household and ambient air pollution".
2. „Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)".
3. „Mortality rate attributed to unintentional poisoning".

a. For the first index we present the next graph:



Graph 13. Mortality rate attributed to household and ambient air pollution, age-standardized (per 100,000 population) [2016]

Source: World Bank (2016)

In this graph, we can observe the alarming values for Romania. In fact, in 2021 Romania „was sent by the European Commission to the Court of Justice of the European Union for two reasons: non-compliance with EU rules on combating industrial pollution and failure to fulfil the obligation to adopt an air pollution control program"[23]. Even an important Romanian philosopher and essayist, A. Pleșu, stated that „one of our unusual successes is to have a huge amount of pollution (in the air, in the water and on the land), without having a large industry." (Journal *Adevărul*, 2009). For Romania, the green battle is just beginning!

According to European Environment Agency (EEA), in the European Union, every eighth death is said to be related to environmental air pollution. One of the last reports of the EEA (2020) specified that more than 400,000 people die each year in the European Union as a result of air pollution. According to the report, air pollution in Europe would be, as before, the biggest threat to environmental health. However, the agency insists that „the situation has improved considerably over the last 30 years. In 1990, the number of deaths caused by air pollution was one million". But other sources of environmental pollution cost lives: noise pollution would be second, with 12,000 premature deaths. The effects of climate change would also have an increasing impact - for example through heat waves and floods. People in urban areas are said to be most affected by the effects of climate change (according to Catherine Ganzleben of the European Environment Agency).

Given that the degree of urbanization in Europe is very high (in many areas with a maximum percentage of 100%) we considered it important to make a

[23] See https://adevarul.ro/stiri-interne/evenimente/comisia-europeana-vrea-sa-dea-romania-in-judecata-2136262.html

comparative analysis of the cleanest cities in the 7 EC2U countries and their capitals. The results are in the following table:

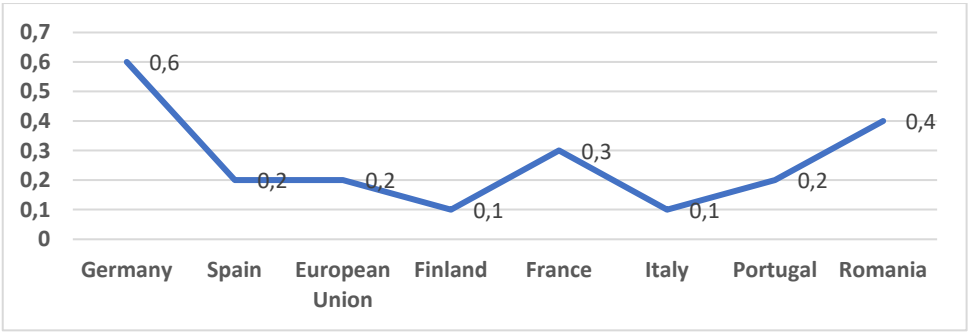
Table 4. Top 7 cities and capitals from the 7 EC2U countries having the cleaner air

City (best rank)	Country	Rank	Capital	Rank
Tampere	Finland	2	Helsinki	11
Funchal	Portugal	3	Lisbon	100
Salamanca	Spain	8	Madrid	75
Pau	France	13	Paris	154
Sassari	Italy	14	Rome	214
Gottingen	Germany	29	Berlin	219
Botosani	Romania	223	Bucharest	263

Source: European Environment Agency[24]

Observation: from the table above, we deduce that in general, the capital cities are much more polluted than the other cities in each country declared to be „clean". Statistics show that Finland ranks first.

b. For the second indicator related to exposure to unsafe Water, Sanitation and Hygiene we present the situation in the next graph:

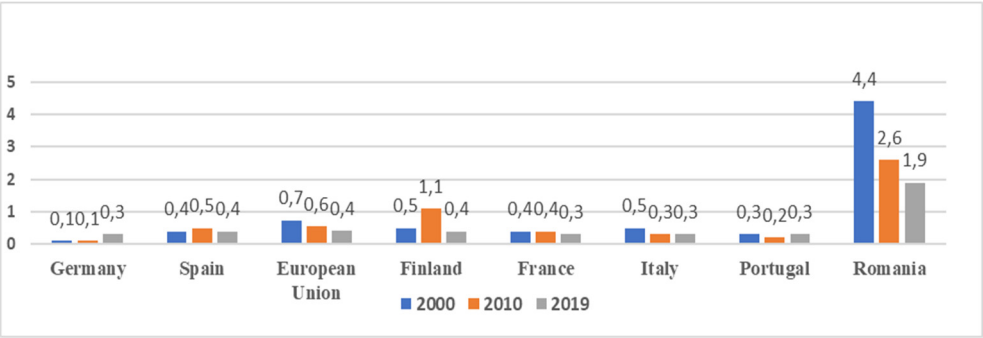


Graph 14. Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (per 100,000 population) [2016]

Source: World Bank (2016)

c. For the third indicator related to unintentional poisoning we preferred to present the evolution of data in the 2000-2019 years period for our seven countries:

[24] https://www.eea.europa.eu/themes/air/urban-air-quality/european-city-air-quality-viewer



Graph 15. Mortality rate attributed to unintentional poisoning (per 100,000 population)

Source: World Bank

Recent documents elaborated by WHO and entitled *Implementation of the European Environment and Health Process* (2022)[25] is specified that „Mortality from unintentional poisoning decreased by 10.9% between 2015 and 2019". Unfortunately, „the increased attention to hygiene and clean environments brought about by the COVID-19 pandemic has led to an increased exposure to hazardous products at home".

Conclusions

We addressed in this article just the first nine targets following that in future studies we will also add systemic targets proposed by the UN Agenda (tobacco control, research and development of vaccines, increase of health financing and the recruitment, reduction and management of national and global health risks).

The current descriptive analysis has two directions for further development: one academic and one practical in the sphere of social policies and public health. On the academic level, the research has been performed to inform the research, teaching and administrative staff involved in the EC2U Alliance on the Third Objective concreteness, reflected by the international open database. The comparative data, represented in tables, graphs and figures raise discussions, topics for in-depth studies and reflections on causes, contexts and (needed) policies. In the VI GLADE, new inter-university and inter-disciplinary teams are starting to frame, to know better each other's expertise and to develop a common approach for the further envisaged studies.

The second direction can suggest public policy issues as can emerge from comparative analyses. For example, empirical research can continue with the study of social and public health policies that have been successful in other European countries. And this is because most often a series of favourable statistical indicators hide real public policies sometimes implemented over long periods on the national

[25] See on the address https://unece.org/sites/default/files/2022-08/72wd17e-C-PR-EnvironmentHealth-220526_0.pdf

level. The exchange of experience between European countries can be very useful in this case through examples of good practices still having in the background the general European strategies.

Acknowledgements
This work has been partially supported by the EC2U Alliance and its Erasmus + Grant n° 101004065-EC2U

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