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GLADE Study about lifelong well-being and healthy ageing in the EC2U 7 countries and in Europe (data from TRANSFER)

UNSDG N°3 TARGETS – A COMPARATIVE ANALYSIS

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Abstract

The EC2U Alliance is based on three of the United Nations Sustainable Development Goals (UNSDGs), UNSDG n°3 – "Good Health and Well-being", UNSDG n°4 – "Quality Education", and UNSDG n°11 – "Sustainable cities and communities".

Work Package 4 and its activities are inherently linked to the third UNSDG: "Ensuring Good Health and Well-being for All", and this goal is, in particular, specific to the Virtual Institute "Good Health and Well-being" (VI GLADE), as framed under the EC2U project by the seven Partner universities:

- University of Coimbra (UC), Portugal
- University "Alexandru Ioan Cuza" of Iași (UAIC), Romania,
- University of Jena (FSU), Germany
- University of Pavia (UNIPV), Italy
- University of Poitiers (UP), France
- University of Salamanca (USAL), Spain
- University of Turku (UTU), Finland

Within the frame of Work Package 4, this deliverable presents a detailed study (including graphical supports and discussion elements) of the thirteen targets of the third United Nations Sustainable Development Goal. This study is a descriptive and comparative analysis of these targets and aims at providing an exhaustive basis to communicate key findings with students and public authorities. Note that this document includes comparative data between the Partner universities of the Alliance (using as an average the European Union); tables, graphs, and figures highlight key areas of discussion whether at the Partner country level or the European level. This present deliverable is also considered a starting point for future debates to be developed in the second and third phases of the study (October 2022 and October 2023).

In accordance with the EC2U project, the results of this study have been shared with the EC2U Community in the first GLADE conference. In addition, this study will continually be made accessible to key stakeholders i.e. students and public authorities, via publishing in open journal and presentations during various conferences.

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I. UNSDG n°3: "Ensuring Good Health and Well-being for All" – 13 targets

A. Presentation of the 13 targets

The third UNSDG is composed of 13 targets. These targets cover a large area of issues, from childhood to older ages, prevention in health to cure and interventions, to indicators related to morbidity aimed at reducing mortality rates.

The 13 targets are broken down into two main categories: 'Numeric and thematic targets' and 'Systemic targets' which correspond to, respectively, detailed targets to reach and general actions to lead. Note here that the UNSDGs and corresponding targets are framed under the 2030 Agenda for Sustainable Development adopted by all Member States.

The targets of the UNSDGs for 2030[1] are stated below.

1. Numeric and thematic targets

3.1 By 2030, **reduce the global maternal mortality** ratio to less than 70 per 100,000 live births.

3.2 By 2030, **end preventable deaths of new-borns and children under 5 years of age**, with all countries aiming 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.

3.3 By 2030, **end the epidemics** of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases **and other communicable diseases**.

3.4 By 2030, **reduce** by one third **premature mortality from non-communicable diseases** through prevention and treatment and **promote mental health and well-being**.

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

3.6 By 2020, **halve the number of global deaths and injuries from road traffic accidents**.

3.7 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.

[1] The UNSDG n°3 targets are detailed here: https://unstats.un.org/sdgs/metadata/

3.8 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.

3.9 By 2030, substantially **reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.**

2. Systemic targets

3.A Strengthen the implementation of the World Health Organization Framework Convention on **Tobacco Control** in all countries, as appropriate.

3.B Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, **provide access to affordable essential medicines and vaccines,** in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

3.C Substantially **increase health financing and the recruitment, development, training and retention of the health workforce** in developing countries, especially in least developed countries and small island developing States.

3.D Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

B. Linking these targets with the Virtual Institute GLADE

Understanding these targets and their implications is important for the development and implementation of the VI GLADE, and will be key in the developing stage of cooperation between researchers, teachers, doctoral and master students, administrative staff, partners from municipalities, and regional administration. This study serves as a basis for collaboration thus allowing researchers and academics i.e. multi-cultural teams of experts to gather around a common topic and develop a common approach to shared challenges.

1. Sharing this research with students and public authorities

Within the activities of WP4, inherently linked to the EC2U GLADE Literacy LAB, this study was first presented to students and other members of the EC2U Community during the first GLADE Conference on the 5th of November 2021 **"Comparative observations concerning Good Health**

and Well-Being. ONU indices between our seven collaborative countries". This session was held online, in English to ensure this conference was accessible to a large number of participants. Prof. Adrian Netedu, active participant of the research committee for this present study, shared the key findings via graphical supports during this conference. (Refer to Annex 1 for the introductory slides used during this conference).

Figure 1: Social media post for the conference ***"Comparative observations concerning Good Health and Well-Being"***

As this study is at the premises, further actions are to be led to release the following research with students of all ages and public authorities notably by publishing this study in open access online journals and presenting it at conferences. The upcoming releases include, but are not limited to:

- A public conference "Comparative observations concerning Good Health and Well-Being" will be held during the Forum in Pavia in April 2022, in order to reach the targeted audience (i.e. students of all ages and public authorities). This session will be recorded and published on the EC2U Global YouTube Channel for further dissemination.

- The final article will be published in a variety of open access online journals in the upcoming months.

II. Comparative analysis of the UNSDG n°3 – numeric and thematic targets

Below, the reader will find a comparative analysis for each numeric and thematic target between the Partner countries of the Alliance. Each section is constructed as follows:

- **Graphs, tables, and figures** that show general evolution and/or the current situation of given targets in Europe and/or in the Partner countries of the Alliance;
- **Additional information** (when needed) that provides an **overview of key discussions** at the international and/or European level, and in certain cases at country level.

A. Reduce the global maternal mortality

Target 3.1: "by 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births."

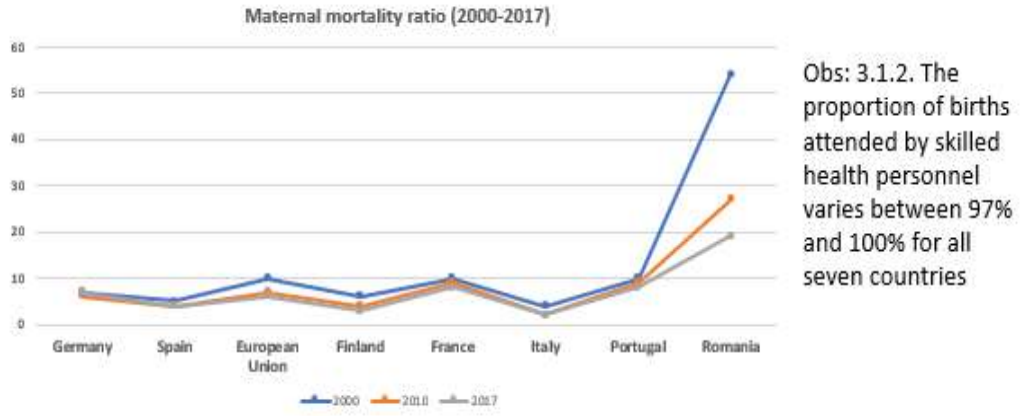
Graph 1: The evolution of the maternal mortality ratio in EU between 2000-2016 (source: https://data.worldbank.org)

Note here that Graph 1 shows that the global maternal mortality ratio (MMR) is stable at 6/100000 since 2012[2]. The situation in many countries is much worse and that is why UN documents provide an international general target (by 2030, no country should have an MMR greater than 140).

[2] For other details see: TRENDS IN MATERNAL MORTALITY 2000-2017 - Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division

Unfortunately, in 2017, the MMR in the world's least developed countries (LDC) was estimated at 415 maternal deaths per 100 000 live births, which is more than 40 times higher than the MMR in Europe.

In the next graphic we can see the comparative data on the MMR for the countries in the EC2U Alliance:



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)

Additional information – overview of key discussions

The World Health Organisation (WHO)[3] draws attention to some key facts:

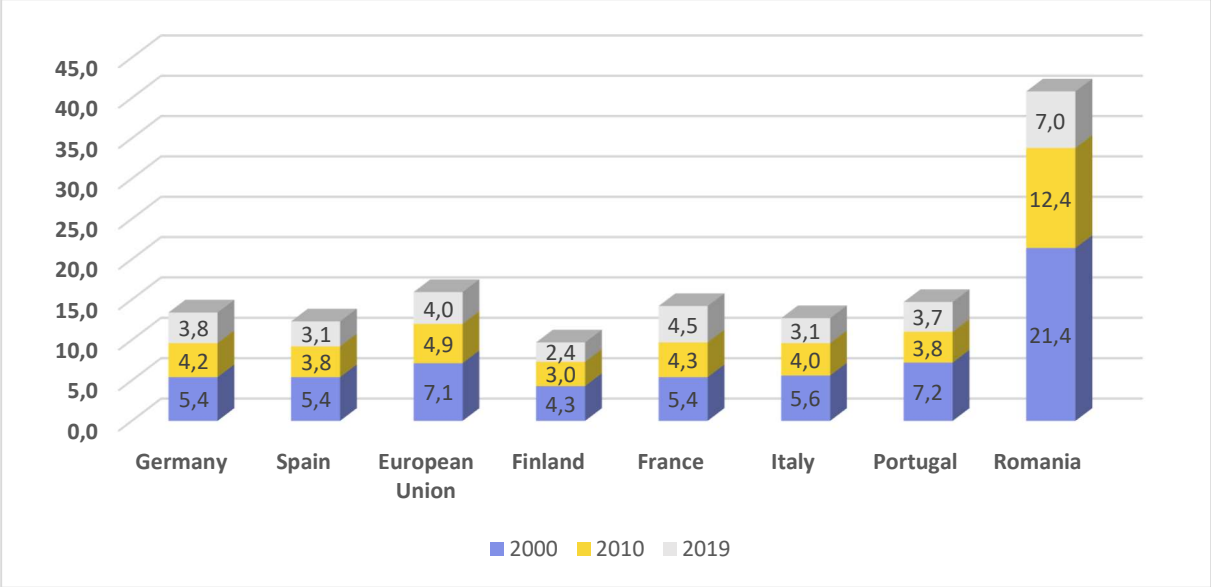
- Every day in 2017, approximately 810 women died from preventable causes related to pregnancy and childbirth.
- Between 2000 and 2017, the maternal mortality ratio (MMR, number of maternal deaths per 100,000 live births) dropped by about 38% worldwide.
- 94% of all maternal deaths occur in low and lower 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.
- The major complications that account for nearly 75% of all maternal deaths are:
    - bleeding (mostly bleeding after childbirth)
    - infections (usually after childbirth)

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

- high blood pressure during pregnancy (pre-eclampsia and eclampsia)
- complications from delivery
- unsafe abortion.

B. End preventable deaths of new-borns and children under 5 years of age

Target 3.2: "by 2030 to end preventable deaths of new-borns and children under 5 years of age, with all countries aiming 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 the graph 3 we can see the comparative situation between the seven EC2U countries and the evolution of the data in three different years.



Graph 3: Under-five mortality rate in the seven EC2U countries and the average in European Union (source: World Bank)

Additional information – overview of key discussions

1. Study of infant mortality intensity should be done by age intervals and by causes of death.

2. 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).

3. The EU average of infant mortality was 3.6 deaths in 2016.

4. We must continue to look at the causes of endogenous mortality and exogenous mortality.

5. Romanian National Institute for Public Health, in the "National Report Health of Children and Youth from Romania 2019" made a detailed report on the health of children and young people with a focus on the main age-specific diseases and causes of death. Below, the detail of the situation in Romania considering the significantly higher mortality compared to the other EC2U countries.

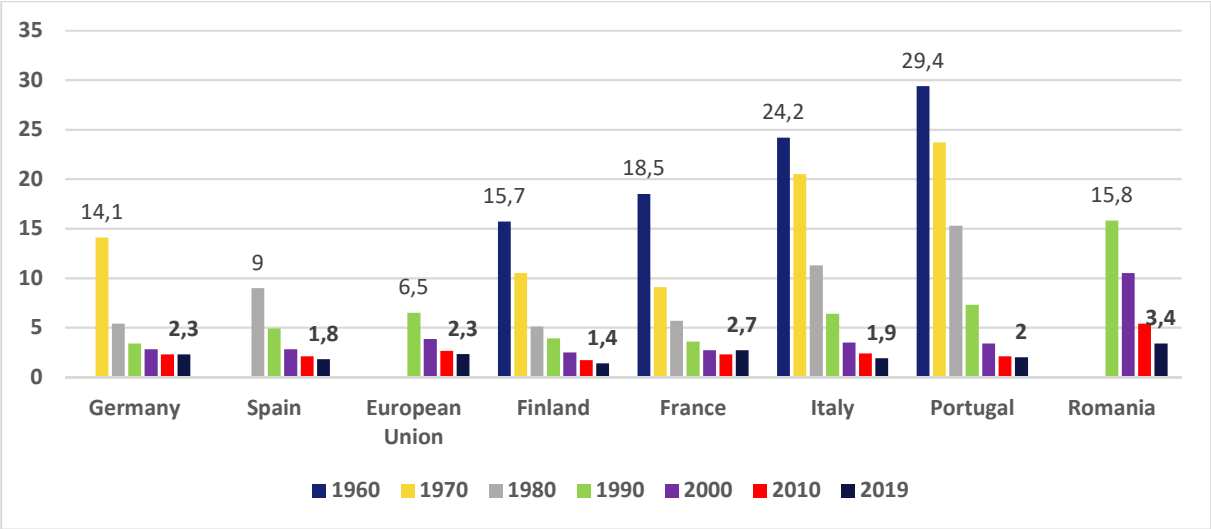
Causes of deaths	under 1 year*	1-5 year
Tumors	4.9%	21.8%
Abnormal Results & symptoms	31.5%	14.8%
Congenital malformation	84.6%	10.8%
Traumatic injuries	6.9%	17.1%
Osteo-articular disease	0.0%	0.0%
Nerves System disease	24.6%	20.5%
Blood disease	18.2%	36.4%
Infectious disease	61.8%	17.1%
Endocrine diseases	53.8%	7.7%
Breathing disease	63.1%	17.8%
Genito-urinary disease	28.6%	7.1%
Digestive disease	51.4%	10.8%
Circulatory disease	37.5%	10.4%
Perinatal affections	100.0%	0.0%
***Percentage of young people aged 0-19**		

Table 1: The structure of deaths by disease classes and age groups in children and young people in Romania, in 2018 (source: INSP-CNSISP[4])

[4] https://insp.gov.ro/download/cnepss/stare-de-sanatate/rapoarte_si_studii_despre_starea_de_sanatate/sanatatea_copiilor/rapoarte-nationale/Raport-National-de-Sanatate-a-Copiilor-si-Tinerilor-din-Romania-2019.pdf

In the quoted report it is recorded that the mortality rate by age group in Romania is declining for all age groups: the highest reduction is recorded in the 0-4 age group, from a maximum value of 5.2% of inhabitants in 1997 to 1.5 ‰ in 2018. Infant mortality, the main synthetic indicator for children's health has seen a sharp decrease, from 22 ‰ (deaths 0-1 year per 1000 births to 5.9 % in 2018, which still remains higher than the average of infant mortality in the European Union (EU) (3.4 ‰ in 2018).

Referring only to neonatal mortality rate, graph 4 highlights the situation of all EC2U countries from 1960 to 2019. Note: the early neonatal mortality rate refers to the rate of deaths among new-borns in their first 6 days after birth. Comparative neonatal mortality rate expresses the intensity of mortality in the first 28 days of life.

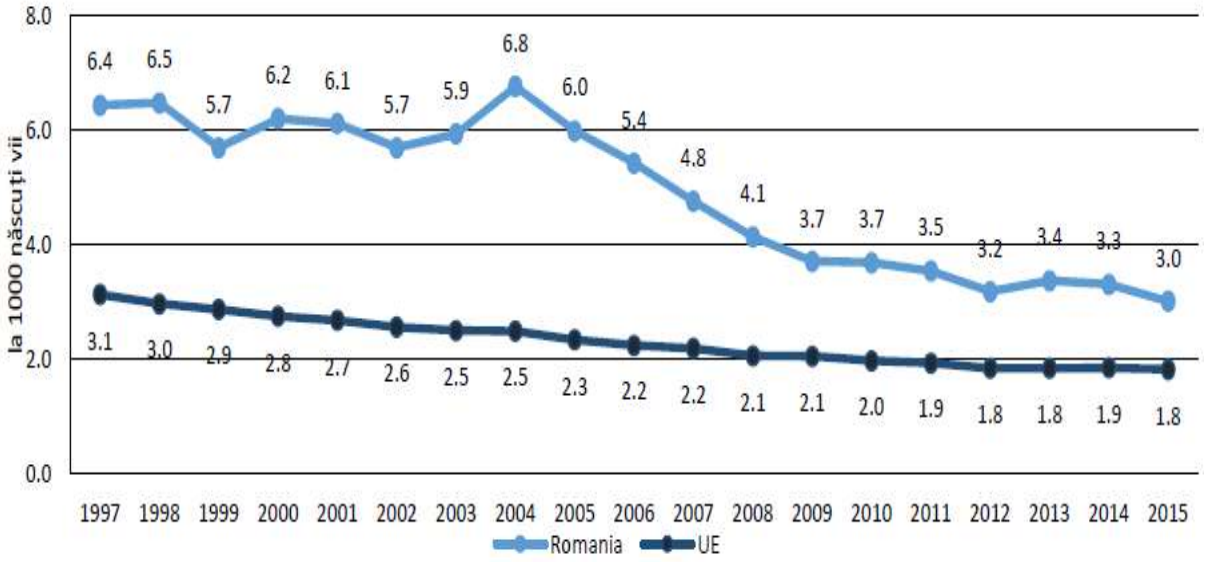


Graph 4: Comparative neonatal mortality rate (per 1000 live births) in the seven EC2U countries and the average in European Union (1960-2019) (source: World Bank)

Graph 4 shows a positive evolution in all compared countries. In order to avoid reading difficulties, we chose for each country to stipulate only the maximum and minimum values. Certain data was not available before 1990 (as in the case in Romania).

In Romania, the neonatal mortality rate is of 3.4 per 1000 live births, and is the highest of all EC2U countries. It was therefore considered necessary to highlight the evolution of this index in Romania in comparison with that of the European level (see graph 5).

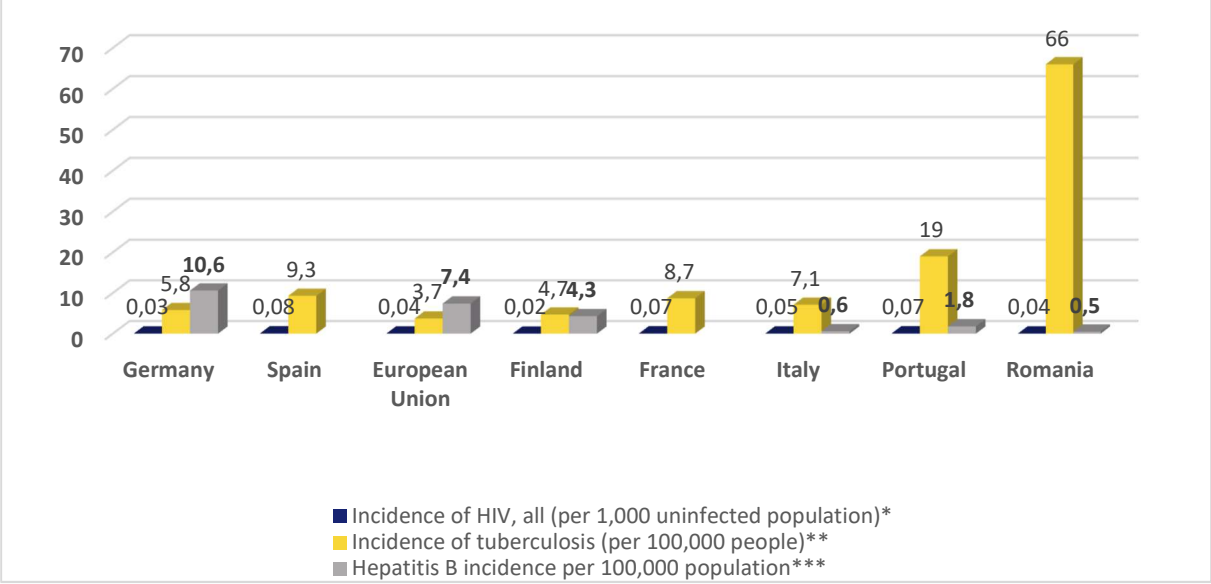
Graph 5 shows the notable decrease in the neonatal mortality rate in Romania since 2004, though this graph shows that this national rate remains above the European average.



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

C. End the epidemics and other communicable diseases

Target 3.3: "by 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases."



*Graph 6: Epidemics of AIDS, tuberculosis, hepatitis (2019) (sources: *World Bank // **WHO (2020) Tuberculosis surveillance and monitoring in Europe // ***ECDC (2019) Hepatitis B. Annual Epidemiological Report for 2019)*

Notes:

- There are no data about malaria and neglected tropical diseases for EU area
- '0' value represent lack of data
- The small values for HIV caused by reporting to 1000 people.

Additional information – overview of key discussions

European level

At European Union level[5], 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 high-risk group for infectious diseases, in particular HIV and/or viral hepatitis (for people who inject drugs)
- support to global fund to fight HIV/AIDS, tuberculosis and malaria
- European neighbourhood policy (cross-border cooperation) etc.

There are reasons for concern as the new reported cases of HIV and tuberculosis and late-diagnosed HIV and tuberculosis[6].

Romanian level

In Romania, the 'National Tuberculosis Control Strategy in Romania 2015-2020' is extended until 2030. The strategy proposes: the reduction of TB mortality by 60% by 2025 and by 80% by 2030 compared to 2018.

At the same time, the Ministry of Health runs a comprehensive screening program for tuberculosis at the national level.

[5] 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.
[6] 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

The project "Organization of programs for early detection (screening), diagnosis and early treatment of tuberculosis, including latent tuberculosis" which focuses on the prevention, screening and diagnosis of tuberculosis, including latent tuberculosis, in a target group of 75,010 people worldwide, nationally selected from vulnerable groups: people from rural communities, homeless people, people suffering from alcohol, drugs or other toxic substances, respectively persons deprived of liberty or under judicial control. The project benefits from co-financing from European non-reimbursable funds amounting to 63.3 million lei, to which is added the contribution from the budget of the Ministry of Health, amounting to 975,000 lei and is coordinated by the Institute of Pneumoftiziology "Marius Nasta"[7].

D. Reduce premature mortality from non-communicable diseases and promote mental health and well-being

Target 3.4: "by 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being."

1. Mortality rate - cardiovascular disease, cancer, diabetes or chronic respiratory disease

The table below presents the mortality rate in all EC2U countries between 2010 and 2016. The gender gaps are also shown.

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

[7] https://marius-nasta.ro/proiect/proiect-organizarea-de-programe-de-depistare-precoce-screening-diagnostic-si-tratament-precoce-al-tuberculozei-inclusiv-al-tuberculozei-latente/

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

Table 2: Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease (source: UNECE.org[8])

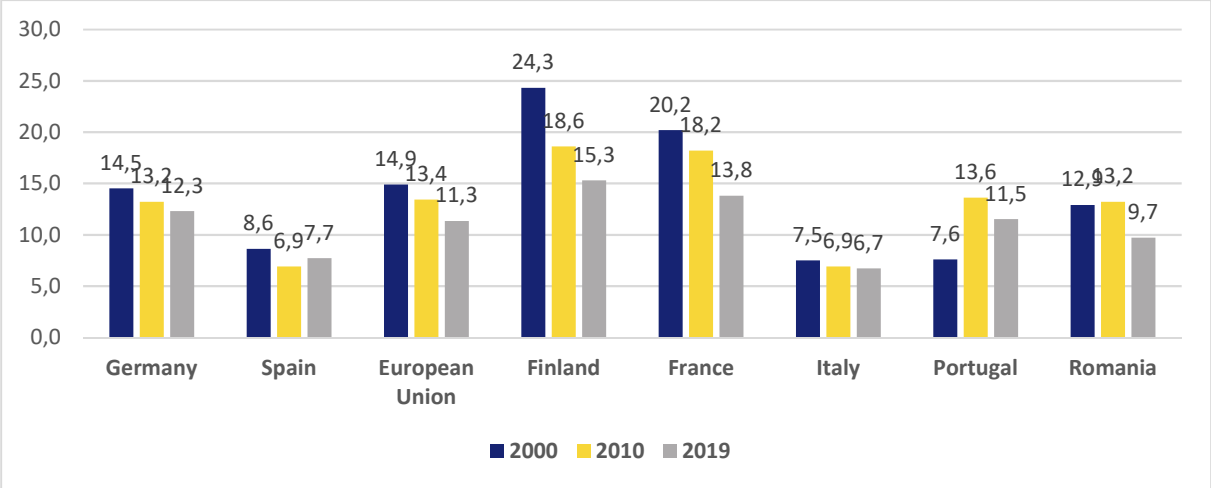
Additional information – overview of key discussions

A study by UNECE presents relevant statistical data that stipulates that the 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 percentage of 30-year-old-people who would die before their 70th birthday from cardiovascular disease, cancer, diabetes, 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).

Table 2 shows, in each country of the EC2U Alliance, a significant difference in mortality rates between women and men, hence showing that males are, in general, more exposed to death caused by cardiovascular disease, cancer, diabetes or chronic respiratory disease. This data points to the excess male mortality rate from this point of analysis.

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

2. Suicide mortality rate



Graph 7: Suicide mortality rate in the seven EC2U countries and the average in European Union (2000-2019) (source: World Bank)

Additional information – overview of key discussions

Globally, the World Bank reports a steady decline in suicide rates: from 12.96 in 2000 to 9.17 in 2019. In 2019, the highest suicide rates in Europe 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) etc. Graph 7 shows the suicide mortality rate and its evolution between 2000 and 2019 in the seven EC2U countries. The reader should note here that this analysis can be developed by an extensive analysis of the country-specific trends and the consideration of gender differences.

E. Strengthen the prevention and treatment of substance abuse

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

1. Treatment interventions and the harmful use of alcohol

a) *Additional information – overview of key discussions*

Note: Coverage of treatment interventions - as pharmacological, psychosocial and rehabilitation and aftercare services) - for the substance use disorders refers 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).

The target will be assessed through aggregating the information on the type of treatment interventions and extent of coverage of these for the population in need.

The harmful use of alcohol is defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol[9].

Discussions[10]

a. Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

b. Warning for young generations:

- the risks of smoking in childhood and adolescence, as average, in EU countries is significant. 25% from the 15–16-year-old adolescents reported smoking in the past month (2015).
- the risks related with drinking alcohol (about half of European adolescents started drinking alcohol at the age of 13 or even younger, and almost 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 with 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-old reporting 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

c. 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).

[9] https://www.who.int/data/gho/data/themes/resources-for-substance-use-disorders
https://wdr.unodc.org/wdr2019/

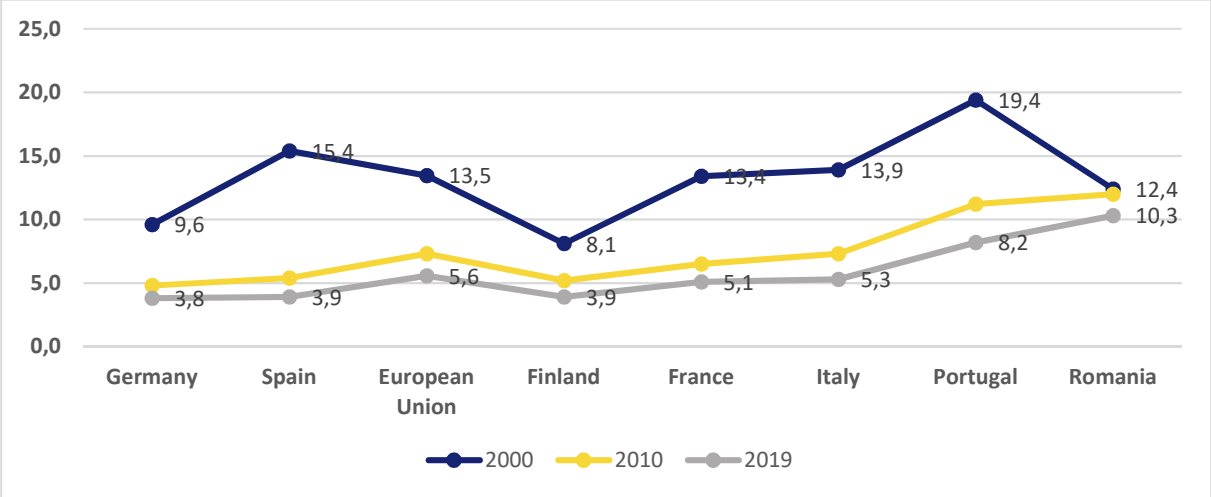
[10] OECD/EU (2018), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*, OECD Publishing, Paris. *https://doi.org/10.1787/health_glance_eur-2018-en*

F. Halve the number of global deaths and injuries from road traffic accidents

Target 3.6: "by 2020, halve the number of global deaths and injuries from road traffic accidents"

1. Death rate due to road traffic injuries

a) *Graphs, tables, and figures*



Graph 8: Mortality caused by road traffic injury (per 100 000 population) in the seven EC2U countries and the average in European Union (2000-2019) (source: World Bank)

Additional information – overview of key discussions

European Level

<u>Recommendation for reducing deaths and injuries from road traffic accidents</u>

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

Romanian level

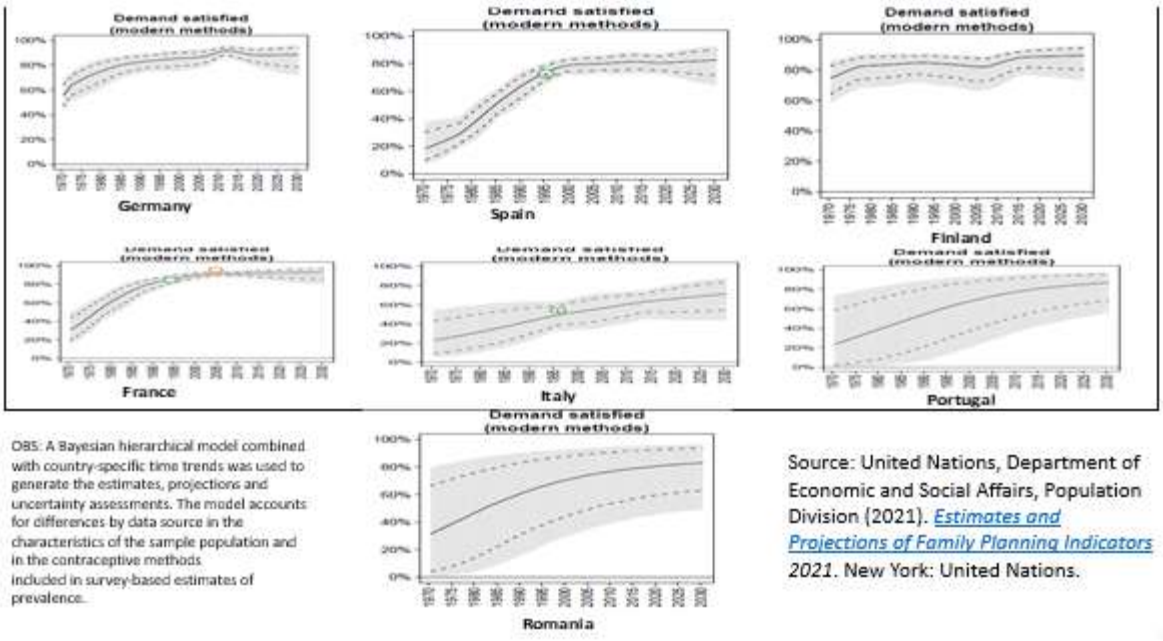
One of the main risk factors for Romania is the infrastructure.

There are too few highways in Romania, 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 EU take place on highways).

G. Access to sexual and reproductive health-care services

Target 3.7: "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".

1. Women of reproductive age receiving family planning services



Graph 9: Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods (in the seven EC2U countries)

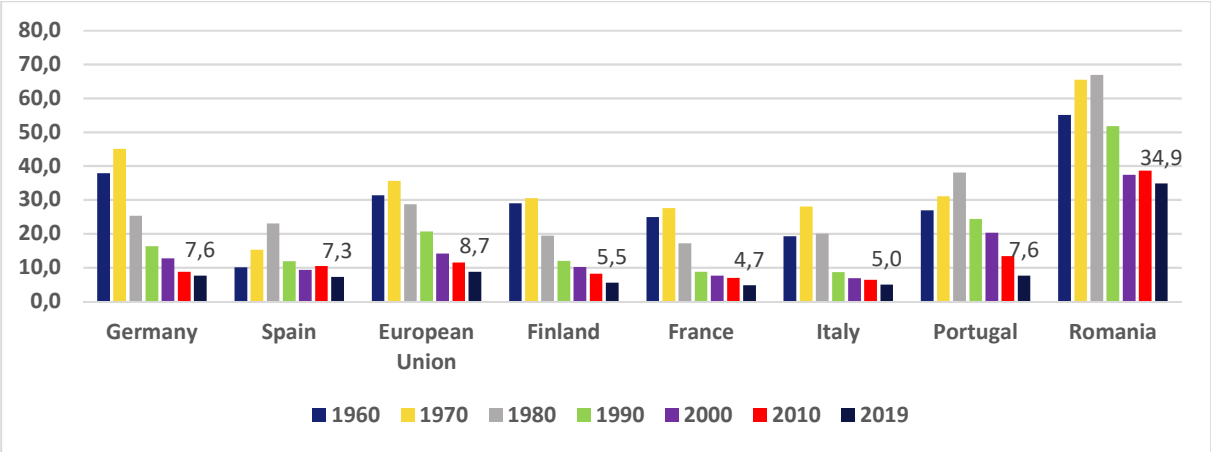
Additional information – overview of key discussions

From the source cited in graph 9, it is stipulated that the results shown in the country profiles cover the period from 1970 to 2030. Estimates were based on medians, as well as 80 per cent

uncertainty intervals and 95 per cent uncertainty intervals, based on data available as of January 2021. This graph shows that, for all analysed countries, the proportion of women of reproductive age (aged 15-49 years) whose needs for family planning are met via modern methods is of 80% between 2025-2030 years.

2. Adolescent fertility

As reported by the World Bank, a common and importance socio-demographic problem, related to adolescent's access to family planning services, is the fertility of underage girls (10-19 years). To complete this study, the adolescent fertility rate (births per 1,000 women ages 15-19) has been analysed, comparing this rate in the seven EC2U countries from 1960 to 2019 – see graph 10.



Graph 10: Adolescent fertility rate in the seven EC2U countries and the average in European Union (1960-2019)

Additional information – overview of key discussions

Analysing graph 10 highlights a significantly higher adolescent fertility rate in Romani, whether it be in comparison with the other six EC2U countries or the average of the European Union. Extrapolating this data could explain the propensity for national debate on sex education in schools in Romania. As of 2021, there is no common strategy in Romania for sex education and various segments of the population remain divided. According to National Institute of Statistic (INS) in 2018 in Romania, 727 adolescents under the age of 15 gave birth and 18 753 adolescents between the ages of 15 and 19 became mothers. A more detailed analysis of these figures, also show that of the 727 adolescents under the age of 15 who gave birth, 19 of them were in their second birth and 1 was experiencing her third birth. Additionally, out of the 18 753

adolescents aged between 15 and 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.

H. Achieve universal health coverage

Target 3.8: "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."

1. Coverage of essential health services

The essential health services is 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 presented on a scale of 0 to 100.

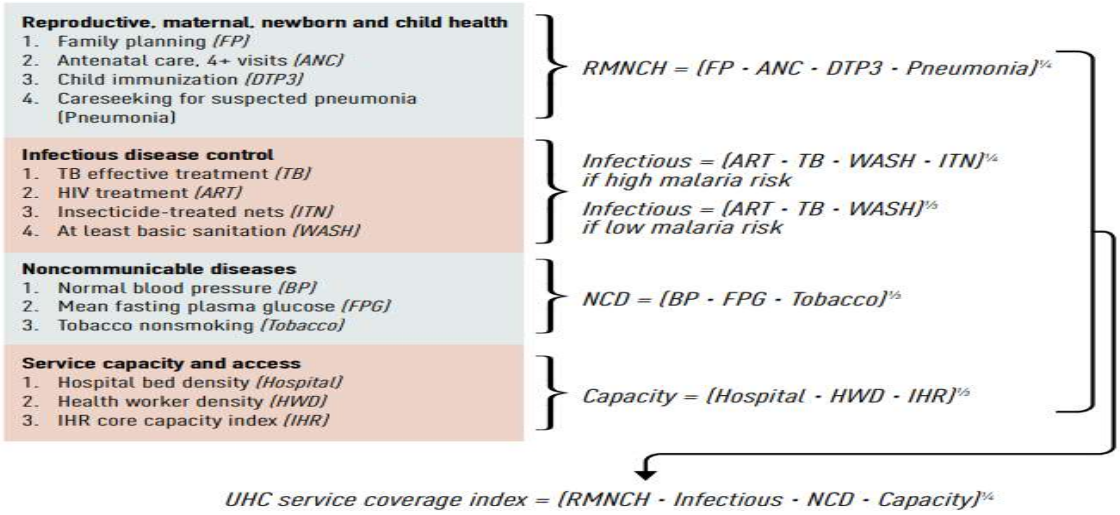
	Reproductive, maternal, newborn and child health				Infectious diseases				Noncommunicable diseases			Service capacity and access			SCI components				
Country	Family planning demand satisfied with modern methods	Antenatal care, 4+ visits	Child immunization (DTP3)	Care-seeking behaviour for child pneumonia	Tuberculosis effective treatment	HIV antiretroviral treatment	Insecticide-treated nets for malaria prevention[a]	At least basic sanitation	Normal blood pressure[b]	Mean fasting plasma glucose[b]	Tobacco non-smoking[b]	Hospital bed density[b]	Health worker density[b,c]	International Health Regulations core capacity index	RMNCH	Infectious diseases	NCDs	Service capacity and access	UHC Service Coverage Index (SDG 3.8.1)
Germany	92	98	93	96	61	81	–	99	99	60	43	100	100	96	94	79	64	99	83
Italy	67	87	95	97	65	86	–	99	100	58	53	100	100	87	86	82	67	96	82
Spain	85	98	95	96	60	83	–	100	100	62	44	100	100	95	93	79	65	98	83
France	91	99	96	96	45	82	–	99	100	56	31	100	100	89	96	71	56	96	78
Portugal	83	98	98	92	61	87	–	100	100	51	45	100	100	91	92	81	61	97	82
Romania	70	76	82	74	75	66	–	84	100	40	48	100	100	76	75	75	58	71	74
Finland	89	98	89	98	28	74	–	99	90	61	60	100	100	94	93	59	69	78	78

Table 3: Coverage index for essential health services in the seven EC2U countries (source: WHO. Primary Health Care on the Road to Universal Health Coverage 2019. MONITORING REPORT CONFERENCE EDITION)

Additional information – overview of key discussion

Table 3 shows high values for all EC2U countries, with a service coverage index of above 70 in each country (Romania with the lowest rate at 74 and Spain and Germany with the highest index of 78).

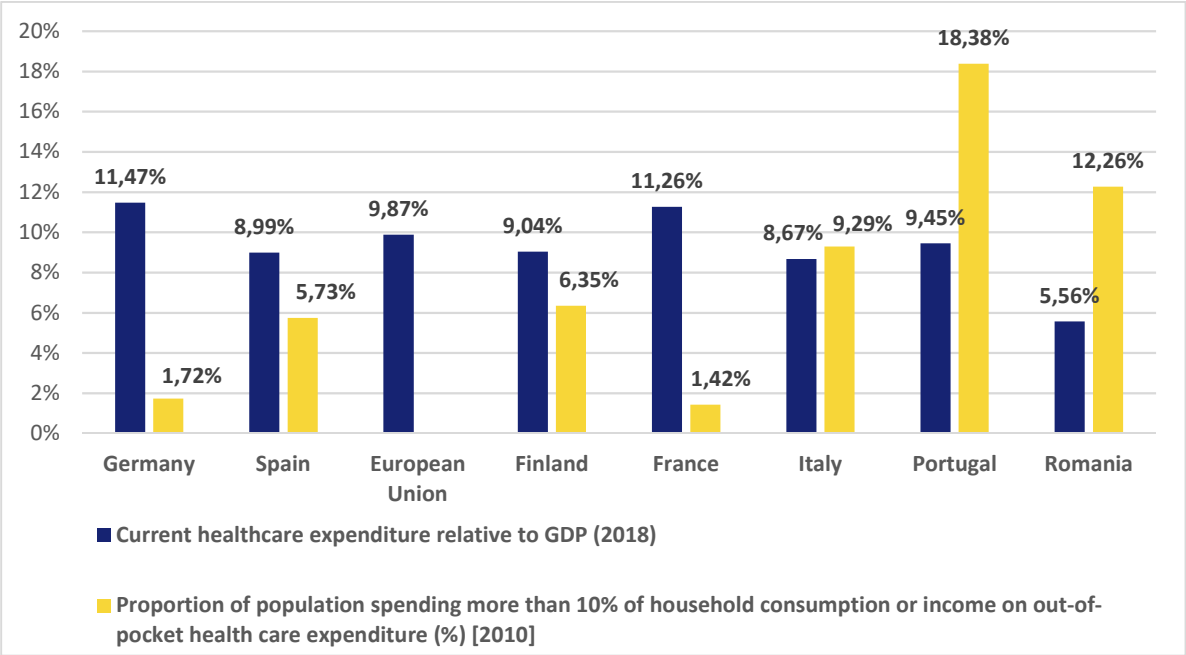
The Graph 11 below, details the internationally recognised method of calculating this statistical index. This indicator and the information below will be used to further carry out the comparative analysis of Target 3.8.



Graph 11 : The indicators used in calculation of the index of health service coverage (source: WHO. Primary Health Care on the Road to Universal Health Coverage 2019. MONITORING REPORT CONFERENCE EDITION)

2. Population with large household expenditures on health

The existing data hardly support significative correlations. In one of the databases we may take to analyse the health-care expenditure relative to GDP (Eurostat, 2018) and from the other the proportion of population spending more than 10% of household consumption on health (%) (World bank, 2010).

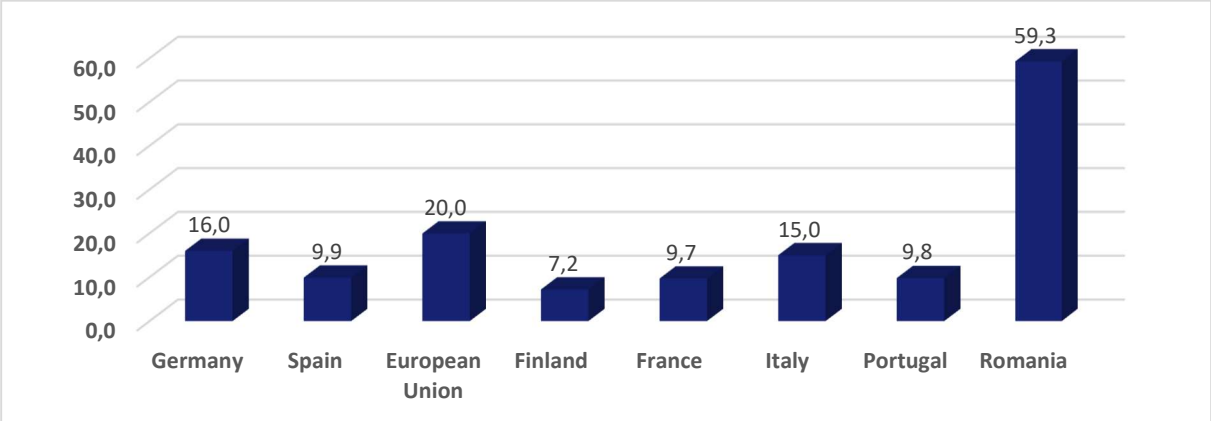


Graph 12: Proportion of population with large household expenditures on health as a share of total household expenditure or income/to GDP (2018) / Proportion of population spending more than 10% of household consumption on health (%) [2010]

I. Reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

Target 3.9: "by 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination".

1. Mortality rate attributed to household and ambient air pollution



Graph 13: Mortality rate attributed to household and ambient air pollution in the seven EC2U countries and the average in European Union - age-standardized (per 100 000 population) [2016] (source: World Bank)

Additional information – overview of key discussions[11]

- According to European Environment Agency (EEA), in the European Union every eighth death is said to be related to environmental air pollution.
- In one of the last reports of EEA (2020) is 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 there are other sources of environmental pollution that 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).

2. Air quality in European cities

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

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
Botoșani	Romania	223	București	263

Table 4: Top 7 cities and capitals from the seven EC2U countries having the cleaner air (Source: European Environment Agency[12])

Observation: Table 4 shows that in general, in each EC2U country, the capital cities are much more polluted than the other cities considered "clean". Statistics show that Finland ranks first.

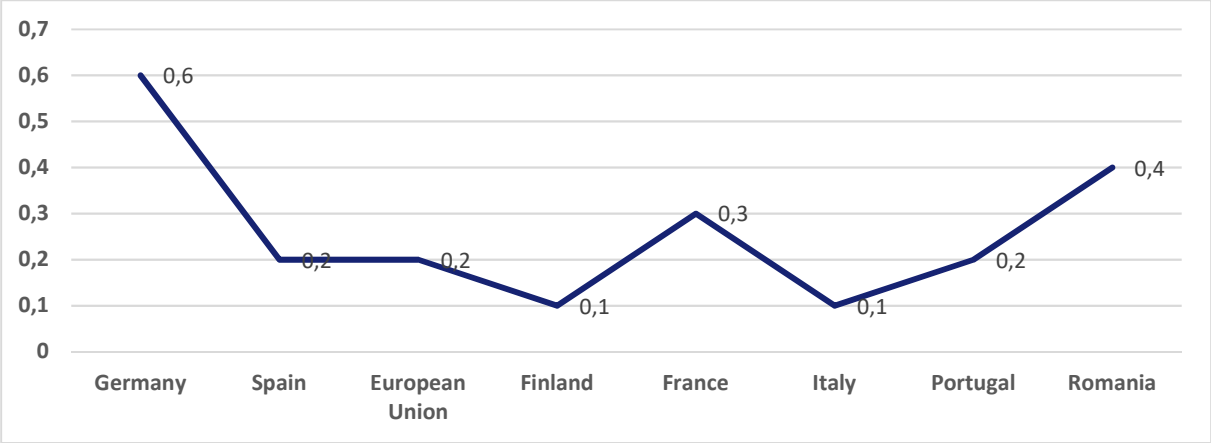
[11] starting from EEA Report (2020). Air quality in Europe

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

3. WASH mobility rate

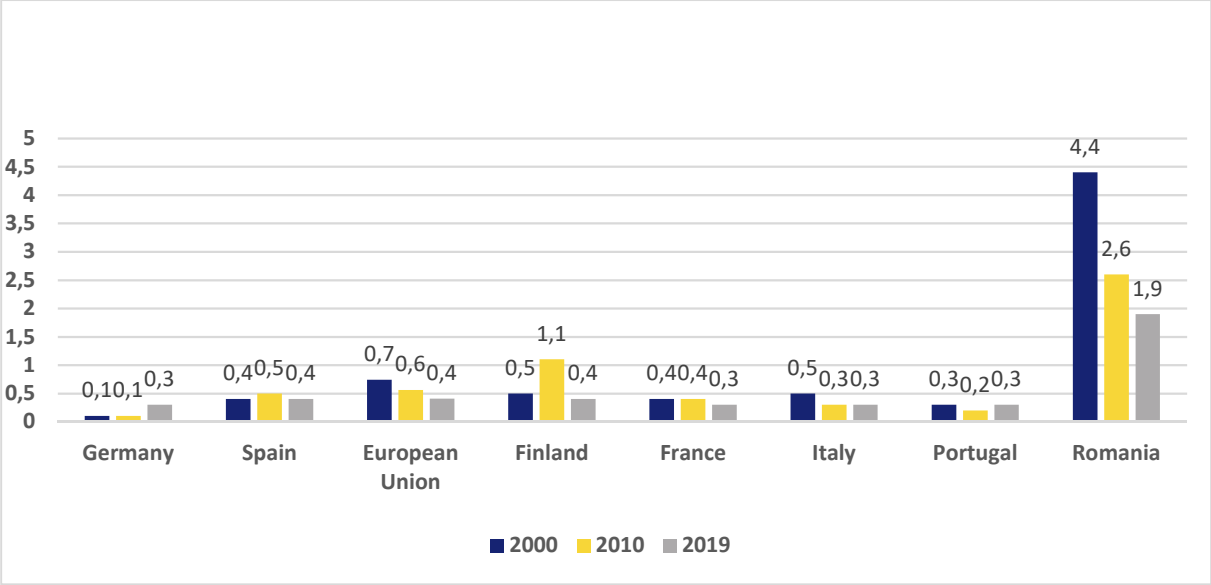
Note: The exposure to unsafe Water, Sanitation and Hygiene for All is known as WASH services.

a) *Graphs, tables, and figures*



Graph 14: The mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (per 100 000 population) [2016] – EC2U countries

4. Mortality rate attributed to unintentional poisoning



Graph 15: Mortality rate attributed to unintentional poisoning in the seven EC2U countries and the average in European Union (2000-2019) – per 100 000 population

Though in most countries compared in graph 15 the mortality rate attribute to unintentional poisoning has decreased over the period 2000 to 2019, certain countries show an increase (such as Germany). This increase warrants a further analysis of data.

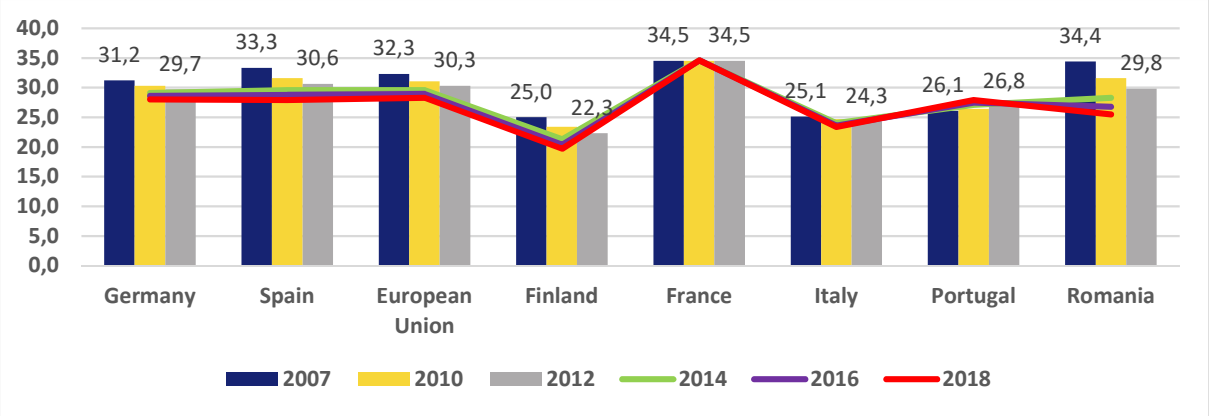
III. Comparative analysis of the UNSDG n°3 – systemic targets

A. Strengthen Tobacco Control

Target 3.A: "strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate".

The age-standardized prevalence of current tobacco uses among persons aged 15 years and older are reflecting the habits and trends in studied countries.

a) *Graphs, tables, and figures*



Graph 16: Prevalence of tabaco use among adults in the seven EC2U countries and the average in European Union (2007-2018) - % of adults

B. Provide access to affordable essential medicines and vaccines

Target 3.B: "support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all"

a) *Additional information – overview of key discussions*

Analysing the proportion of the population with access to *affordable medicines and vaccines* on a sustainable basis may benefit from the pandemic experience.

Country Name	Proportion of vaccinated people (%)	Confirmed cases (weeks 11-24 oct)	Deaths (weeks 11-24 oct)
Germany	79.3	156596	572
Spain	83.9	18477	18
European Union	80.3		
Finland	81.2	7634	42
France	80.6	81603	423
Italy	80.5	56501	583
Portugal	91.4	11310	69
Romania	37.2	202317	6269

Table 5: Affordability and uses of vaccines. Exemplification by the COVID situation (study case: 11-24 October 2021) (source European Centre for Disease Prevention and Control[13])

Romanian level

Some observation for decreasing the risk of COVID infestation (Romania, 11-24 October, 2021)

- continuation of anti-COVID mass vaccination
- professionalization of government communication (and depoliticization of the medical discourse)
- public information campaigns by involving epidemiologists
- IT working groups for keeping fake news media productions under control, etc.
- generalization of the obligation of the green certificate
- timely monitoring of post COVID effects for those who have gone through the disease
- involvement of the Orthodox Church through pro-vaccination messages.

C. Increase health financing and the recruitment, development, training and retention of the health workforce

The target 3.C will benefit of further analysis, using the data from the pandemic experience of last two years (2020-2022)

[13] https://www.who.int/docs/default-source/coronaviruse/situation-reports/weekly-epi-update-11.pdf

It aims the "substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States".

Target 3.D is a global concern at the moment: "strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks" considering the International Health Regulations (IHR) capacity and health emergency preparedness (3.d.1).

The strategic targets are aimed to be studied in details in the second study, that will be delivered in October, 2022.

A comprehensive approach – of the numbered and thematic targets, with actual data reflecting the strategic targets will frame the third part of the Study – will be delivered in October, 2023.

FINAL REMARKS

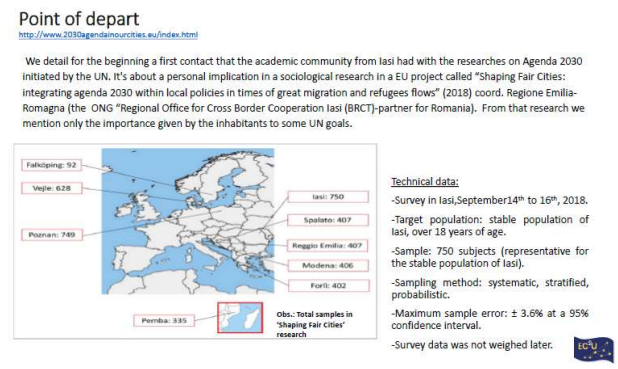
The current descriptive analysis has been performed to inform the research, teaching and administrative staff involved in the EC2U Alliance on the UNSDGs' concreteness, reflected by the international open database.

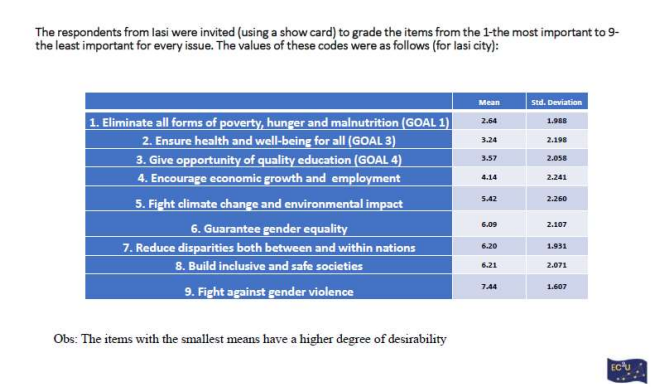
The comparative data, represented in tables, graphs and figures raise discussions, topics for in-depth studies, reflections on causes, on contexts and (needed) policies.

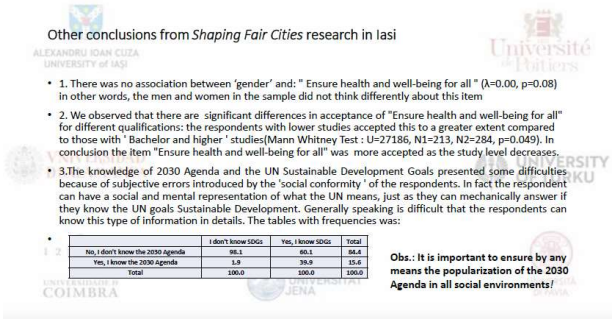
In the VI GLADE, new inter-university and inter-disciplinary teams are starting to form, to know better each other's expertise and to develop a common approach for the further envisaged studies.

IV. Annexes

A. Annex 1: GLADE – Virtual Institute for Good Health and Well-being







B. Annex 2: List of graphs

C. Annex 3: List of tables

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