Do governments care about socioeconomic inequalities in health? Narrative review of reports of EU-15 countries

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Abstract
Socioeconomic inequalities in health have been an issue in all European countries since the publication of the “Black Report” in the United Kingdom in 1980. However, data show that nowadays there are important socioeconomic health inequalities within EU countries. The purpose of this paper is to review EU-15 government reports that address socioeconomic inequalities in health. We reviewed 101 reports. The pioneer countries in analyzing this topic have a Beveridge-type health system, and they are the leaders over time. The top socioeconomic indicators used are education level, social class, deprivation level of the area, and nationality. Given the current COVID-19 pandemic situation and its economic consequences, EU governments need to continue monitoring the existing inequalities in health and to act transversely in all public policies.

KEYWORDS
gender inequalities, health inequalities, health policy, socioeconomic level

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1 | INTRODUCTION

Socioeconomic (SEC) inequalities in health entered the political agenda in all European countries with the publication of Black et al. (1980). This report highlighted the great inequalities in the morbidity and mortality of the population of the United Kingdom, and how these had increased since the inception of the National Health Service in 1948. It also pointed to the bigger impact on health of SEC inequalities beyond the health system.

Since then, the reduction of SEC inequalities in health has become a matter of equity and social justice for European countries, with a focus on reducing the social gradient in health outcomes that exists (Marmot et al., 2010). In 2006, the Council of Health Ministers in the European Union (CHMEU) agreed common values and principles for European Union (EU) health systems: universality, access to good quality care, equity, and solidarity (Official Journal of the European Union, 2006). Moreover, the publication in 2008 of the final report of the World Health Organization Commission on Social Determinants of Health (CSDH) was an inflection point, placing health inequalities as a major issue on the health policy agenda worldwide (CSDH, 2008).

However, persistent inequalities in health exist within the EU (Mackenbach et al., 2008). Data from European countries show that life expectancy still varies depending on SEC level (Organization for Economic Co-operation and Development (OECD), 2019), and almost 80% of the population in the upper income quintile is declared to be in good health, compared to just 60% of the population in the lower quintile (OECD, 2019). Regarding the utilization of healthcare services, studies report that, in most European countries, lower SEC groups are as likely or more likely to attend primary care centers, and that higher SEC groups use more specialized care (Fjær et al., 2017).

In line with the Sustainable Development Goals 2030 (United Nations (UN, 2015), the EU Joint Action Health Equity Europe (JAHEE) (2018–2020) program was established to define joint strategies (JAHEE, 2014), create a common conceptual framework, and detect specific and validated actions to reduce health inequalities. Although efforts to tackle health inequalities have led to different supranational projects, little is known about how this spirit has spread around Europe.

A lot of research on inequalities in health is funded by governmental entities, published as scientific articles, and reviews of these scientific articles already exist. However, some research is only published as reports, which are hardly included in the reviews, since they are considered “grey literature.”

So, the purpose of this paper is to review reports that address SEC inequalities in health, published by governmental or non-governmental entities of the EU-15 countries with the objective: (a) to measure the importance of this topic in the policy agenda of the governments of the EU-15 countries and (b) to describe the relationship between the number of reports published and the type of healthcare system (Beveridge or Bismark-type) existing in each country. To do this, we first describe the conceptual framework of social inequalities in health that this paper uses. Second, characterize the two main types of health systems within EU countries. After stating the research question and describing the data used and methods, results are described according to the analyzed variables. Results are discussed in the light of the most recent literature on the topic. The added value of our paper is to review reports from governments or governmental institutions, universities, and scientific societies of EU-15 countries, published over the last 40 years.

2 | BACKGROUND

There are different frameworks to explain the causes or determinants of health inequalities. This paper uses an adaptation of the framework proposed by the Commission on the social determinants
of health, launched by the World Health Organization (WHO) in 2005 with the aim of collecting scientific data on possible measures and interventions to favor equity in health and to promote an international movement to achieve this goal (CSDH, 2008).

The framework contains two main elements: structural factors and intermediate factors of health inequalities. The structural factors are the SEC and political context, and the social structure. The SEC and political context refer to the factors that significantly affect the social structure and the distribution of power and resources within it: government, political tradition, transparency, corruption, trade union power, and economic and social stakeholders. Both determine the macroeconomic policies, the power relations between the social agents that affect the labor market, and the public policies that make up the Welfare State (education, health care, and social protection). In addition, this section also includes the social and cultural values that underpin policies and hierarchies.

The framework of social inequality contains two main elements: structural factors and intermediate factors of health inequalities. The structural factors are the SEC and political context, and the social structure. The SEC and political context refer to the factors that significantly affect the social structure and the distribution of power and resources within it: government, political tradition, transparency, corruption, trade union power, and economic and social stakeholders. Both determine the macroeconomic policies, the power relations between the social agents that affect the labor market, and the public policies that make up the Welfare State (education, health care, and social protection). In addition, this section also includes the social and cultural values that underpin policies and hierarchies.

The different axes of social inequality determine hierarchies of power in society. These axes, such as social class, gender, age, ethnicity or race (as a social construct), and territory, determine the opportunities for good health and highlight the existence of health inequalities due to power, prestige, and access to resources, with the benefit of people from privileged social classes, men, those of white race and those from richer geographical areas. These axes of social inequality are related to the concept of discrimination (classism, sexism, or racism).

The social structure determines inequalities in intermediate factors, which in turn determine inequalities in health. These factors include the material resources which are as follows: the conditions of employment and work, the unpaid workload (domestic and caring tasks), the income level, the quality of the home and its equipment, and the neighborhood or area of residence and its characteristics. Material resources influence psychosocial processes such as lack of control, social support, and stressful situations (negative life events), as well as behaviors that influence health and the biological processes that result from them. Finally, the health system that, although it contributes very little to the generation of health inequalities, lower access to and lower quality health services for less-favored social groups can have worse consequences for incidental problems in health and well-being.

Base on this framework, literature recommends to introduce changes in the labor market and in the welfare state policies (education, health care, and social protection) in order to diminish SEC inequalities in health (Chung & Muntaner, 2007; Coburn, 2004; Eikemo et al., 2008). As an example, the Commission on the social determinants of health recommended: to improve living conditions, to combat the unequal distribution of power, money, and resources, and to measure the magnitude of the problem, analyze it and evaluate the effects of the interventions (CSDH, 2008).

The health systems of EU-15 countries are configured following two main patterns: Beveridge model and Bismarck model (Kroneman & Van Der Zee, 2007). In countries with Beveridge-type health systems, all citizens are entitled to health services. They are based on the principles of solidarity and redistribution, and enable universal access. A very large part of the funding comes from progressive income taxes, and it is complemented by value-added taxes and other levies applied to certain products such as hydrocarbons, alcohol, and tobacco. The paradigm of a country with this type of health system in the United Kingdom, where its National Health Service was set up in 1948 inspired by the so-called “Beveridge Report” (Beveridge, 1942).

Countries with a Bismarck health system are financed by compulsory social security contributions. Mandatory contributions paid by companies and workers are the main source of funding. Sickness funds are organized into occupational categories and can be more or less numerous. Financial resources are obtained from the economic wealth of companies and wages and are directed to employees and their beneficiaries. In this system, general taxes also play a role in financing insurance premiums for disadvantaged and non-covered sectors, and certain types of basic public assistance such as vaccinations or maternal and child health services.
In the EU-15, eight countries (Denmark, Spain, Greece, Finland, Italy, Ireland, Portugal, the United Kingdom, and Sweden) have a national health system model; seven countries (Germany, Austria, Belgium, France, Luxembourg, and the Netherlands) have a social security system model.

Among the main features of the health systems of the EU-15 countries, it should be noted that Spain, Italy, the United Kingdom, Germany, Belgium, France, Luxembourg, and the Netherlands have a centrally defined basket of healthcare services. Citizens of Denmark, Spain, and the United Kingdom have free access, without any co-payment, to primary care consultations, outpatient specialist care consultations, hospital admissions, and access to emergency services. All EU-15 countries have different co-payment models for medicines used in outpatient care. The use of mechanisms to protect the most vulnerable groups, which guarantee care for disadvantaged groups and the promotion of public health objectives, is widespread in European co-payment systems.

3 | DATA AND METHODS

We carried out a narrative literature review. First, we performed a bibliographic search through Google search engine, from March to September 2019, using the terms “health” and “inequalities” as free language, and in the official languages of each of the countries included in the analysis. Additionally, we manually utilized a snowball method, using the identified documents to identify other relevant documents, until saturation.

Documents containing health indicators disaggregated by the SEC and published in any EU language were included. Of all the identified documents, we included those from (a) the ministries of health of the EU-15 countries; (b) government-related institutions (public health government institutions, health technology assessment agencies, etc.); and (c) reports from universities and scientific societies. Aside from formal reports, data visualization formats were also included. We omitted other publication formats: scientific articles, journals, general health reports, etc. The search was performed by two of the researchers, and the results were shared in order to agree on any discrepancies.

From the identified documents, we extracted and grouped into categories the following variables:

- **Country**: EU-15 country. Note: at the time of writing this paper, the UK was still in the EU-15.
- **Year**: Year of publication of the report.
- **Health system**: Beveridge (financed by the government) or Bismark (financed by employers and employees).
- **Health topic**: Health status (perceived health status, emotional, physical, and functional quality of life); healthy lifestyle (health habits of the population); morbidity (related to pathologies); mortality and life expectancy; maternal, child, and reproductive health (including outcomes related to sexual health); occupational health (concerning disability, functional limitation, and accidents directly related to the work environment); preventive health (focused on public health programs: prevention and early detection); health system (related to access, quality, and cost of the health system); and drug consumption (consumption, costs, and access).
- **Disaggregation of the indicators by sex**: yes/no.
- **SEC indicators**: education level (maximum educational level completed); income level (individual’s total earnings from wages, investment interest, and other sources); housing status (housing tenure and housing conditions); employment status (reflects position in the labor market: employee, unemployed, pensioner, etc.); professional group (skill-related job groups); social class (based on occupational and prestige relations); nationality (refers to the country of origin or ethnicity); family structure (includes marital status, members of the family unit, and number of dependent children);
healthcare coverage (possession of private health insurance, as well as the coverage offered by the public health system according to income and other SEC characteristics); mixed economic and social level; and area deprivation level (composite indices that determine the level of deprivation of each area).

- **Data sources**: health surveys, mortality registries, other official statistics, healthcare registries, other sources.
- **Inequality measures**: simple (comparisons between two subgroups) or complex (uses all subgroups to assess inequality) (Spinakis et al., 2011).

We organized all the data in spreadsheets and then carried out a descriptive quantitative analysis of both reports and indicators according to the variables mentioned above.

## 4 | RESULTS

We reviewed 105 reports on SEC inequalities in health, which provided a total of 1,763 indicators. A full list of all the references by country is aggregated in Appendix S1.

The most productive countries were Spain, with 24 reports, the United Kingdom with 13 reports, Sweden and France with nine, Italy and Germany with eight, Ireland with seven, Belgium and Denmark with six, and the Netherlands with five. The remainder of the countries had all produced fewer than five reports.

The pioneer country in the publication of reports on SEC inequalities in health was the United Kingdom, with the "Black Report" in 1980 (Figure 1). It took 10 years for the second report to appear, in Finland in 1990, which republished in 2009 and 2019. France published reports in 1996 and 1997, and then almost annually from 2010. Ireland was next, publishing two reports in 2001. The first report in Spain was published in 2002, from which point reports were published almost annually. The

![FIGURE 1 Number of published reports by country according to year of publication](image-url)
United Kingdom also published almost annually from 2002 until 2011. All reports from Germany were published between 2002 and 2019. Sweden published its first report in 2011, and annually from that point. Denmark published reports between 2011 and 2013. Belgium published from 2007 to 2010 and resumed in 2019. Italy published for the first time in 2011, and then annually until 2019.

Countries with Beveridge-type health systems were found to lead in the analysis of SEC inequalities in health, and also accounted for the vast majority of reports over time (74 reports from countries with Beveridge-type health systems compared to 31 reports from countries with Bismarck-type systems).

German reports included indicators of morbidity (34% of all indicators), lifestyles (24% of all indicators), health status (16%), and health system (11%) (Figure 2). Spanish reports included mainly indicators of mortality and life expectancy, healthy lifestyles, and morbidity (approximately 22% each). In Finland, Ireland, Italy, and the United Kingdom, reports included mortality and life expectancy indicators (both represent more than 40% of all the indicators). Portugal and Sweden mostly included indicators of morbidity in their reports (both represent 26% of all indicators in both countries).

The five most common indicators in each health topic are shown in Table 1. In the health status topic, they are as follows: perceived health status, indicators with physical and functional limitations, quality of life, and physical pain. Healthy lifestyle includes risk factors such as smoking, obesity and overweight, sedentary lifestyle, and risky alcohol intake. Under the topic of morbidity is the indicators of chronic health and health problems, mental disorders and depression, and diabetes mellitus. Regarding mortality, the most common indicators are the total mortality rate for cancer and respiratory diseases, and life expectancy. The most frequent indicators within maternal and child and reproductive health are infant and perinatal mortality rates, low birth weight and preterm birth, and adolescent pregnancies. Preventive health includes various screenings, influenza vaccination, and blood pressure measurement. In terms of health system, indicators include visits to the GP and various specialists, as well as hospitalization and the use of emergency services. Finally, regarding pharmacy, the most frequent indicators are drug prescription and psychoactive drug prescription.
In terms of sex disaggregation, the first report published in 1980 disaggregated 86% of included indicators by sex. Between 1990 and 2010, most published reports had between 75% and 100% of their indicators disaggregated by sex; the exceptions were the reports published in 2003, 2007, and 2008, with values under 50%, across all countries. In global terms, the trend decreases slightly from 2009, with 50% to 70% of the indicators disaggregated by sex, except for the years 2012, 2015, and 2016, where between 20% and 30% of the indicators were disaggregated.

The most used SEC indicators in reports published by Germany were income level (47%), education level (25%), employment status (20%), and family structure (17%) (Figure 3). In Austria, the most used were income level (70%), followed by education level (30%). In Belgium, the most common were education level (50%) and the area deprivation level (50%). In Denmark, the most common was education level (89%). In Spain and Ireland, the most common were social class (70%). In Finland, it was social class (52%) and education level (45%). In France, the most common indicators were income level (73%) and social class (60%). In Greece, the most widely used was income level (80%). In Italy, it was education level (97%). In Luxembourg, the indicators in the only published report were disaggregated by the area deprivation level. In the Netherlands, the most common indicators were education level (70%) and nationality (43%). In Portugal, the most widely used was income level (80%). In Sweden, it was education level (97%).

Analysis of the data sources used revealed common patterns between countries. Health surveys were by far the most frequent data source used (in 91 out of 105 reports). This was the case for Germany, Spain, Finland, France, the Netherlands, and Sweden. Health registries were the next most frequent source of information (used in 45 reports) and were the most widely used source in Denmark, Italy, and the United Kingdom. Mortality records were a relatively important source of information, used in Belgium, Spain, France, Ireland, Italy, and the United Kingdom. Other official statistics were often considered relevant (used in 35 reports), mainly in Denmark, Spain, Ireland, Italy, the Netherlands, the United Kingdom, and Sweden. Other sources of information used, which were less common but still considered important in Denmark, Spain, and the United Kingdom, were traffic accident records, labor, and economic databases.

Inequality measures are not systematically present in inequalities reports. Considering all the indicators used, 58% did not measure inequality and 42% estimated at least one kind of inequality measure (37% simple and 14% complex). Considering each country, Belgium, Finland, Italy, and the United Kingdom were the countries that used most inequality measures, both simple and complex (between 50% and 84% of the indicators) (Figure 4). Aside from Austria, which did not use any measure of inequality, Germany, Ireland, Luxembourg, Netherlands, and Portugal were the countries that used the least inequality measures (between 4% and 29% of the indicators).

5 | DISCUSSION

In total, 105 reports on SEC inequalities in health were reviewed, providing a total of 1,763 indicators of health inequalities in different domains. The countries that published more reports on SEC inequalities were Spain, the United Kingdom, Sweden, France, Italy, Ireland, Belgium, Denmark, and the Netherlands; the rest of the countries produced fewer than five reports each. This large number of publications—despite the exclusion, as discussed in the methodology section, of scientific articles,
| Topic                                      | Indicators                                                                 |
|--------------------------------------------|----------------------------------------------------------------------------|
| Health status                              | Self-assessed health (%)                                                  |
|                                            | Physical limitations of daily living (%)                                  |
|                                            | Functional limitations (%)                                                |
|                                            | Perceived quality of life                                                 |
|                                            | Physical pain (%)                                                         |
| Healthy lifestyles                          | Smoking (% population)                                                    |
|                                            | Obesity (IMC≥30) (%)                                                       |
|                                            | Risky alcohol consumption (%)                                             |
|                                            | Overweight (IMC≥25) (%)                                                    |
|                                            | Physical activity (%)                                                     |
| Morbidity                                  | Any chronic illness (%)                                                   |
|                                            | Any health problem (%)                                                    |
|                                            | Mental health disorders (%)                                               |
|                                            | Diabetes mellitus (%)                                                     |
|                                            | Depressive disorders (%)                                                  |
| Mortality and life expectancy              | Mortality rate                                                            |
|                                            | Life expectancy                                                           |
|                                            | Lung cancer mortality rate                                                |
|                                            | Respiratory diseases mortality rate                                        |
|                                            | Cancer mortality rate                                                     |
| Maternal, child, and reproductive health   | Infant mortality rate                                                     |
|                                            | Low birth weight (%)                                                      |
|                                            | Preterm birth (%)                                                          |
|                                            | Perinatal mortality rate                                                  |
|                                            | Teenage birth rate (%)                                                    |
| Occupational health                        | Occupational disability                                                  |
|                                            | Work-related mortality rate                                               |
|                                            | Work-related diseases (%)                                                 |
|                                            | Work-related accidents (%)                                                |
|                                            | Perceived occupational hazard                                             |
| Preventive health                          | Breast cancer screening                                                   |
|                                            | Cervical cancer screening                                                 |
|                                            | Colon and rectus screening                                                |

(Continues)
The pioneer countries in analyzing SEC inequalities in health have a Beveridge-type health system; countries with this type of system analyzed the most SEC inequalities in health and published more reports. In particular, the United Kingdom, Spain, Sweden, and Denmark stand out. Countries with a health system where insurers are the providers of the healthcare portfolio (mainly Bismark-type), historically have not included reducing health inequalities as a goal to be addressed, although over the years their sensitivity in this area has increased.

Regarding limitations, and as in any review work, it is possible that in the present study relevant documents were omitted. The review search was carried out using Google search engine, a tool that is increasingly used even among health technology assessment agencies (Briscoe, 2015), although it is not immune from biases (Ćurković & Košec, 2018). The included documents were those reports where SEC inequalities in health played a major role, as a whole or part of the goal, and where health indicators were analyzed according to SEC level. However, given the completeness of the literature search, which reached saturation (no publication has identified further reports), it is highly likely that no relevant report has been left out. Additionally, the search was reported following current recommendations (Briscoe, 2015, 2018).

Moreover, it should be noted that Spain is one of the countries for which most reports were identified. The fact that the authors of this report are well acquainted with the local institutions that publish on these topics has surely led to a higher number of identified publications. However, this also suggests that reports from other countries published by local regional authorities may not have been possible to identify, especially in non-English speaking countries.

It should be taken into account that health systems were classified into a binary variable (Bismark and Beveridge types), with the limitations that this may cause. Although theoretically, they are quite distinctive, in real terms, there are nuances and variations, and some health systems may share characteristics of both types (Tulchinsky, 2018). However, any other classification would have similar problems.

Theoretically, the Beveridge model promotes universal coverage ensuring that citizens have access to health care in order to protect them (especially low-income groups or people suffering from chronic

### Table 1 (Continued)

| Health system                      | Drug consumption                      |
|------------------------------------|---------------------------------------|
| Influenza vaccination rate         | Drug consumption (%)                  |
| Periodic blood pressure measurement (%) | Drug consumption without medical prescription (%) |
| General practitioner visits last year (%) | Antidepressants consumption (%)       |
| Hospital admissions last year (%)  | Antipsychotics consumption (%)        |
| Emergency visits last year (%)     | Anxiolytic consumption (%)            |
| Specialized medical visits last year (%) | Drug consumption (%)                  |
diseases and long-term illness) from the incidence of illness. Based on the principles of solidarity and redistribution, equity plays a key role in Beveridge-type health systems, so that a greater focus on analyzing this issue could be expected. Moreover, governments, through different policies, are ultimately
responsible for the provision of services and, therefore, for the inequalities that may arise from them. Therefore, health systems—mainly Beveridge—have been pioneers in highlighting that health does not focus solely on the performance of health systems (mainly because they are the ones that manage health outcomes), and that social determinants play a fundamental role.

Finally, as stated in the objective, the paper focuses on reports published by governmental or non-governmental entities that address SEC inequalities in health with the objective to measure the importance of this topic in the policy agenda of the governments of the EU-15 countries. We did not include what each report suggested as the causes of health inequalities, what responses were proposed, where responsibility for reducing health inequalities was located, etc. This will constitute the next step in our research.

However, and regarding this last limitation, we would like to make two considerations. First, although not being systematically reviewed with this purpose, our lecture of the reports suggests that many of the reviewed reports are purely descriptive. Some reports choose a set of health variables and analyze them by SEC, with the objective to point out the existence of inequalities in health, and to call for action on that matter. Some others are part of the government’s objective to monitor SEC inequalities in health, and to get evidence on the effects of the policies in place. As mentioned, a more accurate picture would require further analysis. Second, although research suggests that a reduction in SEC inequalities in health undoubtedly requires a reduction in overall economic and social inequalities, there is no clear evidence of specific policy strategies or mixtures of policies and SEC health inequalities (Hurrelmann et al., 2010). In general terms, the broad involvement and coordination of all political players, ministries, and government agencies from the local to the national level is key to effectively achieve a reduction of inequalities in health (Mackenbach & Stronks, 2004). They also involve actions designed to mobilize the healthcare system, notably through preventive health measures and primary health care (Couffinhal et al., 2005).
Focusing on the trend over the years regarding the number of health inequality reports published, the creation of the Commission on Social Determinants of Health in 2005, and the subsequent publication of the report “Closing the gap in a generation” in 2008, prompted greater analysis of inequalities (CSDH, 2008). This highlights the importance of supranational institutions in influencing the political agendas of member countries. Institutional arrangements and interests of individual researchers may also interact.

The available data sources define the topics studied, the indicators analyzed, the existing disaggregation, and the indicators used to measure the SEC level in each country. Health status and healthy lifestyles were frequently studied topics in all countries. Relevant information was mostly collected from health surveys, which usually form part of official statistics. A similar phenomenon is observable for the topic of mortality and life expectancy, with indicators calculated from the mortality registries included in official statistics. Regarding morbidity, indicators are based on administrative healthcare data that, again, forms part of official statistics. Much less common are the topics of maternal, child and reproductive health, occupational health, preventive health, and drug prescription, in some cases due to a lack of reliable sources of information (as is the case for occupational health), and in others due to a lack of tradition. Noticeable is the scarce research on inequalities in drug prescription. This is despite the fact that there are particularly good sources of information on this topic in most countries, it accounts for a significant part of the health budget for most countries (OECD, 2019), and there is scientific evidence of the existence of gender and SEC inequalities (Ruiz-Cantero, 2019).

As mentioned, sex stands out as an inequality axis. This axis of disaggregation was very much present in reports published until 2008, yet as of this year, and in the current decade, the sex axis has been less present. Studies of gender inequalities in health are usually conducted in parallel with SEC studies, but it must be borne in mind that these two axes of inequality act simultaneously. This fact is known as the “intersectionality perspective,” which emphasizes the connection between axes of inequality to explain previously unknown health inequalities. This is particularly relevant here as women, by themselves, are a vulnerable group, with a poorer self-assessed health status than men, suffering more chronic illnesses and health problems, experiencing more anxiety and depression, more disabilities or permanent limitations, visiting more mental health centers, and taking more psychoactive drugs than men (WHO, 2000; Rogers & Kelly, 2011; Vigod & Rochon, 2020).

Another relevant inequality axis is age. As mentioned earlier, most reports include the population over the age of 16. That cut-off excludes the child population, a traditionally under-studied group, as it is assumed that this population is mainly healthy and that inequalities appear in adulthood. However, there are inequalities in health status and utilization of services in early life, as has been evidenced in different EU countries (Lai et al., 2019; Pillas et al., 2014; Zylbersztejn et al., 2018). Reports addressing child well-being are limited to indicators of maternal, child and reproductive health, or perinatal and infant mortality, and exclude mainly chronic diseases or communicable diseases such as tuberculosis (Gröschel et al., 2019; Korda et al., 2014; Spencer et al., 2015), both of which are related to SEC disadvantage. Another age group that is overlooked is the elderly population, who also suffer from health inequalities—albeit cushioned by the impact of retirement benefits—mainly impacting on chronic diseases (Dalstra et al., 2005), functional limitations (Knesebeck et al., 2017), and causes of death (Mackenbach et al., 2008). Not surprisingly WHO has warned that ageism is the third cause of discrimination in the world, after gender and racism (WHO, 2021).

Ethnicity has been little explored in the vast majority of reports, and less its intersectionalities with other axes of inequality such as gender. Recently, the integration of different axes of inequality has gained attention in health research to better explain the different distribution of diseases and health
indicators in societies (Bauer, 2014; Brown et al., 2016). The large immigration movements experienced by European countries have shaped a multiculturality and race heterogeneity in many countries. Governments should make this reality stand out in health reports and in their approach to reveal the existing inequalities in health. It is important to note that many information registries are not up-to-date to collect this information properly and a methodological harmonization is needed. Furthermore, this attribution could not be registered when individuals are part of the second generation (already nationalized in the host country). These added difficulties mean that race is difficult to be systematically included in the reports, and even less its intersections (Farkas, 2017).

The European Commission emphasizes the need for systematic implementation of simple and complex measures of inequality, and to avoid absolute numbers (Spinakis, 2011). Their inclusion in the reviewed reports is closely linked to the academic field, the culture of data processing, and the structure and quality of the information sources. Although several reports included inequality measures, this is not a systematic practice, highlighting the margin for improvement in this area.

Lastly, it is worth considering the importance of the sources of information available in each country, their quality, and transversality. In an era where big data have become an indispensable tool in many areas, healthcare administrative data may be one of the most valuable sources. Governments, in general, and the health system, in particular, are systematic producers of data, and the reuse of this data can bring benefits beyond the purpose for which it was originally collected. All reports reviewed used data from different information sources, many of these outside the healthcare sector, some at the individual level and others at the aggregate level. However, a call for better information systems and data collection at regional, national, and EU level has been made in order to better monitoring SEC inequalities, to measure changes over time and across groups of people, and to enhance international comparability (Expert Panel on effective ways of investing in Health, 2016).

The results of this review show that Spain, Italy, and the United Kingdom are leaders in health inequalities reporting in Europe, publishing reports every five years or less, including a wide range of topics, with most indicators disaggregated by sex, using a very diverse SEC indicators, diverse sources of information, and calculating inequality measures. By contrast, Germany, Austria, Greece, Luxembourg, the Netherlands, and Portugal have much room for improvement. Moreover, from the review of the reports, it can be deduced that Belgium, France, Ireland, and Finland have set up interrelated projects with specific objectives related to reducing health inequalities. These projects embrace several levels of government across different areas, with a purpose of treating health inequalities as a systemic problem and not simply a health one, following the objective of "health in all policies" (WHO, 2014).

As highlighted in the evidence reviewed, some elements are key to measuring health inequalities properly: (1) establishing transversal areas of interest and indicators that allow the health status of the population to be measured over time; (2) introducing the SEC and sex disaggregations in all the measured indicators, both health indicators and determinants of health indicators; (3) including vulnerable populations in the study of inequalities (children, elderly, LGBTI, ethnic groups, etc.); and (4) introducing new measures of inequality in order to be able to monitor them and, in particular, at least one comparative measure of health inequalities in common use in the EU, as is the case of the index of gender inequalities (EIGE, 2020).

The evidence is clear: inequalities are a fact and are present in health. This is illustrated by the large number of reports reviewed in this paper, published in different countries with diverse social, political, and health structures. Given the current COVID-19 pandemic situation and its economic consequences, EU governments need to continue monitoring the existing SEC inequalities in health and to act transversely in all public policies.
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**SUPPORTING INFORMATION**

Additional supporting information may be found online in the Supporting Information section.

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