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Addressing the Social Gradient in Health in Portugal Through Primary Health Care: A Challenge for Equity and Social Justice

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Master's in Health Services Management

Supervisor:

Professor Doctor Henrique Martins, Associate Professor,

ISCTE Business School, Department of Social and Business Sciences

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BUSINESS
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To those who have no voice.

I used to worry that our patients were homeless, came from dysfunctional families, were subject to crime and abuse. What was the point of patching them up and sending them back to miserable lives? Should we not try to do something about the misery outside?

- *Marmot, The Status Syndrome (2005)*

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Resumo

A presente investigação centra-se no estudo de uma abordagem baseada nos Cuidados de Saúde Primários (CSP) para responder às desigualdades na saúde em Portugal. A análise desta problemática abrangeu as várias dimensões sociais e económicas que a influenciam: nível de rendimento, envolvente e desenvolvimento na infância, situação familiar, condições habitacionais e de trabalho, níveis de educação e participação em comportamentos de risco. Verificou-se uma maior exposição das camadas mais pobres da população a condições que afetam negativamente a sua saúde. Além disso, estas populações enfrentam maiores barreiras no acesso aos cuidados de saúde, provocando uma espiral negativa – que parte da doença para o agravamento do acesso a oportunidades, levando a ainda mais pobreza e, por sua vez, a menos saúde – que se repete sequencialmente, levando a cada vez mais sofrimento.

As noções acima foram confirmadas pela análise dos dados fornecidos pela Unidade Local de Saúde de Loures-Odivelas (ULSLOD) no âmbito da presente investigação. Estes dados foram recolhidos através de um método de amostragem aleatória, no fim do mês de junho de 2025, incluindo um total de 180,791 pacientes com registos clínicos codificados segundo o ICPC-2.

Concluiu-se que uma abordagem baseada nos CSP pode efetivamente contribuir para o combate à gradação social da saúde. Neste sentido, recomenda-se (*i*) que a vulnerabilidade socioeconómica seja incluída como fator de discriminação positiva no processo de alocação a uma Equipa de Saúde Familiar e (*ii*) que sejam criadas equipas multidisciplinares de intervenção comunitária com atuação nas regiões mais vulneráveis do país.

Códigos JEL: I14; I18

Palavras-chave: Igualdade de Oportunidades; Sistema Nacional de Saúde; SNS; Discriminação Positiva; Gradação Social da Saúde; Justiça Social

Abstract

This research examines how an approach grounded in Primary Health Care (PHC) can serve as an effective strategy to address health inequalities in Portugal. Health inequalities were therefore explored through a multidimensional lens, addressing its key domains, beyond the economic conditions of the patient, such as the childhood environment and development, family situation, housing and working conditions, education levels, and engagement in risk behaviours. Findings suggested that not only were the poorer more exposed to harmful settings that led to ill health, but also that these individuals found stronger barriers to accessing health services, perpetuating a vicious cycle of limited opportunities, deeper poverty, and worsening health conditions.

A dataset gathered through a random sampling method was provided by the Loures-Odivelas Local Health Unit (ULSLOD), which encompasses one of Greater Lisbon's poorest municipalities (Loures), to provide further empirical data on the association between the variables above. This data was collected at the end of June 2025 and included 180,791 patients, excluding those with no registrations.

Overall, the findings supported the PHC as a means of reducing health inequalities, thereby validating the research question. Accordingly, the author recommends the inclusion of economic vulnerability as a positive discrimination criterion for the allocation to a Family Health Team and the creation of community intervention teams that address the most vulnerable regions of the country.

JEL Codes: I14; I18

Key Words: Equality of Opportunity; National Health Systems; Positive Discrimination; SNS; Social Gradient in Health; Social Justice

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List of Acronyms

AI	Artificial Intelligence
AM	Amadora
APHP	Associação Portuguesa de Hospitalização Privada
BI-CSP	Bilhete de Identidade dos Cuidados de Saúde Primários
CNECV	Conselho Nacional de Ética para as Ciências da Vida
CS	Cascais
CSDH	Commission on Social Determinants of Health
ECD	Early Child Development
ECHI	European Core Health Indicators
ESF	Equipa de Saúde Familiar
EU	European Union
FFMS	Fundação Francisco Manuel dos Santos
FHT	Family Health Team
GDP	Gross Domestic Product
GP	General Practitioners
HEC	Health Education Council
ICPC	International Classification of Primary Care
INE	Instituto Nacional de Estatística
IQ	Intelligence Quotient
LI	Lisboa
NHS	National Health Service
NPM	New Public Management
OD	Odivelas
OECD	Organisation for Economic Co-operation and Development
OR	Oeiras
PHC	Primary Health Care
PVM	Public Value Management
SDOH	Social Determinants of Health
SI	Sintra
SNS	Serviço Nacional de Saúde
SUS	Sistema Único de Saúde
UCSP	Unidade de Cuidados de Saúde Personalizados
UK	United Kingdom
ULS	Unidade Local de Saúde
ULSLOD	Loures-Odivelas Local Health Unit
USF	Unidade de Saúde Familiar
VBHC	Value Based Health Care
VHA	Veterans Health Administration
WHO	World Health Organization

1. Introduction

Despite the circumstances and motivations that were behind the creation of the Portuguese *Sistema Nacional de Saúde* (SNS), today the fulfilment of the promise to a universal right to health seems to be broken. The rising demand for health care, coupled with the lack of organizational capacity to respond to it efficiently, has been increasingly pressuring the national health system for years (C. Rodrigues, 2023). This scenario should not be taken as unforeseen nor exclusive to the Portuguese case. In fact, by 1978, the British national health system (NHS) was already facing limitations to its action, with waiting lists on the rise. At the time, patients could wait months – or even a year or two – for minor surgical interventions. Delays were also reported in Sweden (Morais, 1979).

This raises a fundamental question: why is it that the State cannot be expected to provide all services universally and at full capacity? The answer lies in something that virtually everyone does on a daily basis. In economic terms, when faced with an infinite number of needs and, conversely, limited resources, one must make choices by setting priorities. The alternative to avoiding such trade-offs would be either to increase income or, alternatively, to incur in more debt. From the perspective of the State, this would entail raising taxes, for example, or increasing public debt, a burden that would ultimately fall on future generations of taxpayers (Emmerson et al., 2024).

In Portugal, the options are scarce. Public health expenditure is already the second largest area of public investment, surpassed only by spending on Social Security and solidarity (Appendix A) (República Portuguesa, 2024) – a sector that is also going through a sustainability hardship, due to the lack of generational replacement and a declining ratio of active workers to pensioners (Martins, 2024). Meanwhile, Portugal's public debt is projected to reach 92% of its national gross domestic product (GDP) in 2025 (Annex A) (Statista, 2025), considerably surpassing the European Union (EU)'s recommended ceiling of 60%, which is intended to safeguard political and economic stability (Treaty on the Functioning of the European Union, 2016; European Central Bank, 2020). Beyond the already elevated levels of public debt, and from a taxpayer's perspective, in 2023, Portugal ranked eleventh among the 15 countries with the highest personal income tax rates worldwide (Annex B) (World Population Review, 2025), while placing ninth among EU member states with the lowest levels of GDP per capita in 2024

(Annex C) (Pordata, 2025c), with private sector[1] debt amounting to 120% of the Portuguese GDP (Annex D) (Eurostat, 2025e), in the context of an economy that has grown an average of two percentage points annually, for the past decade (2014-2019) (Appendix B) (The World Bank Group, n.d.). While many factors contribute to high household debt levels, the fact that consumer loans are more prevalent among lower-income households (André, 2016) reinforces the OECD's recent findings regarding fiscal pressure. In the December 2023 report, OECD excludes Portugal from the group of countries that will need to raise taxes between 2024 and 2060, given the country's «substantial fiscal consolidation efforts in recent years» (Guillemette & Château, 2023, p.22). Nonetheless, Portugal is still faced with the difficult projections set for the upcoming decades, as most of the OECD member-states are expected to face fiscal pressures in the long-term, driven by «rising financing costs, slowing growth and upward pressure on expenditure due to population ageing and the rising relative price of government-provided services» (Guillemette & Château, 2023, p.20).

While as previously portrayed, European governments are expected to face «shrinking economies» (Anderson, 2023, p.1), health care expenditure, by contrast, is projected to increase significantly in the upcoming years (Balasubramanian, 2023). The progress made in «treatment modalities, advanced diagnostics, and in improving overall patient well-being» (Balasubramanian, 2023, p.1), the rise in pharmaceutical prices, the high cost of a specialised health care workforce, alongside an increasing demand for services due to a rapidly ageing population, are all contributing to the increasing cost of health care. Forecasts predict an average yearly rise of approximately 2.5% in the prices of health care goods and services from 2018 to 2027 (Balasubramanian, 2023). The inflation resulting from the war in Ukraine and the health challenges driven by climate change further exacerbate this phenomenon. Additionally, another key factor contributing to the crisis in Europe's health systems, often regarded as the most well-funded and equitable globally, is the growing shortage of health care professionals. Low wages, unsafe working conditions, and pressure are driving health workers away, leading to a WHO study in 2022 that found 40% of these professionals experience depression or anxiety, while 70% report feeling burned out. This resulted in a loss of approximately 1.8 million health workers in the WHO's European region by 2023, with projections indicating that this number could reach 4 million by 2030 (Anderson, 2023). All these factors have been adding to the

[1] For the purposes of this indicator, and according to Eurostat (2025), the term 'Private Sector' encompasses non-financial businesses, individual households, and non-profit organizations serving households.

increasing challenge of keeping European «health systems afloat» (Anderson, 2023, p.1) and pose a serious threat to their sustainability in the long term, while simultaneously jeopardising the protection of a universal health coverage[2] (Anderson, 2023). Simultaneously, health inequalities remain a pressing challenge, disproportionately affecting the most vulnerable populations (CSDH, 2008).

Not just in Portugal, but worldwide, these inequities in health are manageable and, therefore, unfair, making their resolution a matter of social justice (CSDH, 2008). Echoing this belief, the current thesis aims to fulfil five main goals, starting with *i)* recalling the historical significance of the SNS as a cornerstone of the Portuguese democracy. Further on, the research will focus on *ii)* understanding and underscoring the extent of Portugal's social gradient in health, along with its key determinant factors, as well as *iii)* analysing what are the social and economic impacts of such inequities in both the society and the national health system. Finally, the last two objectives consist of *iv)* exposing the reinforcement of the intervention of the Primary Health Care (PHC) in the lower social classes as part of a sustainable solution to the country's inequalities in health, culminating in the *v)* presentation and critical assessment of the proposals put forward. These points will be divided into four main chapters. The first two – Chapter 5 and Chapter 6 – will consist mainly of a narrative review: Chapter 5 focuses on the social role of the Portuguese SNS, revisiting its historical context and the moral and ethical concerns that were (and still are) at the core of its activity; Chapter 6 explores the dimension, causes, and impacts of unequal access to health care in Portugal. Chapter 7 focuses on why the social gradient in health should be a major political, social, and individual concern. Lastly, Chapter 8 focuses on the development of a PHC-based solution to address the social gradient in health in the country. To this end, the chapter not only explains the potential of PHC as a response to this issue, but also presents a statistical analysis carried out to confirm the link between being assigned to a Family Health Team (FHT) and achieving a better health status, regardless of income level. The chapter concludes with a detailed description of the recommended measures, including their potential benefits and the challenges of implementing them, incorporating insights from various experts (Appendix R).

[2] According to the WHO, UHC means that «all people have access to the full range of quality health services they need, when and where they need them, without financial hardship» (WHO, 2025d, p.1).

2. Research Question

The challenges faced by the national health systems across Europe have led to limitations that are affecting access to health care. In Portugal, clear evidence of these hardships is the continuous growth of the private sector of health care, to which the populations turn in response to the inefficiencies of the public services (Fragata, 2022). Therefore, besides the growing of the family's financial burden, there's a part of the population that does not have the means necessary to access other complementary forms of assistance. This is the poor population, which, besides being more vulnerable to disease, once sick, faces stronger barriers in accessing health care. The perpetuation of such conditions would mean the re-establishment of a health care service for the rich, and other, much worse, for the poor (Fragata, 2022) - a distinction that the Portuguese SNS was meant to abolish since its beginning.

A key concern regarding the Portuguese SNS is the enduring nature of management models that have not evolved significantly over time, despite major shifts in society and health care needs. One of the new approaches addressing this weakness is the Value Based Health Care (VBHC) model, a health care strategy that emphasizes enhancing patient health outcomes while reducing costs (C. Rodrigues, 2023) by recognizing the «common needs of a patient segment» (Teisberg et al., 2020, p.1). This allows health care teams to develop cost-efficient, interdisciplinary, and patient-centred solutions that address both clinical and nonclinical needs of those receiving assistance. As this trend continues to grow, the health care sector is expected to undergo significant change over the next decade, shifting its focus from diagnosis and treatment to well-being and prevention (Batra et al., 2019). This shift could potentially lead to lower health care spending and more equitable access (Teisberg et al., 2020).

Accordingly, this study aims to explore and propose actions, with effects in the short-term, that address the social gradient in health in Portugal, resorting to the PHC, particularly by assessing how being attributed to a FHT affects patients' health outcomes, regardless of their income level. By these means, the objective is to analyse whether including patients' socioeconomic vulnerability as an aggravating factor in the prioritization for FHT allocation, along with the creation of community-based intervention teams within PHC, could be a viable solution to tackling health inequalities.

3. Study Background

Addressing the social gradient in health[3] requires a holistic approach that encompasses all the social determinants of health[4] (SDOH) (Figure 3.1). The social and economic circumstances of populations remain a significant predictor of their education levels, living and working conditions, community environment, and access to goods and services – all of which affect their chances of enjoying a dignified and healthy life. These unfair inequities are not inevitable outcomes of a natural order, but rather the result of «a toxic combination of poor social policies and programmes, unfair economic arrangements, and bad politics» (CSDH, 2008, p.1). In fact, the health disparities observed across income groups result from a range of vulnerabilities, found in various dimensions, that affect the individuals' health from early childhood[5] onward (CSDH, 2008).



Figure 3.1 Social Determinants of Health
Source: Adapted from Department of Health and Human Services & Office of Disease Prevention and Health Promotion, n.d.

It is now well established that poor Early Child Development[6] (ECD) has a strong influence on the «subsequent risk of obesity, malnutrition, mental health problems, heart disease, and criminality» (CSDH, 2008, p.4). The location where individuals reside also significantly affects their health, influencing factors such as access to nutritious food, housing quality, behaviour, and safety. In relation to work, lower social positions are often associated with volatile, temporary, or non-contractual jobs, which have been linked to higher rates of mortality and mental illness, as well as to adverse working conditions, further exposing these individuals to physical and mental health risks. All these factors emphasize that health inequalities are not a

[3] As explained by Marmot (2004), there is a social gradient in health, meaning that people with higher social positions are usually healthier than their lower-status counterparts.
[4] The WHO defines the SDOH as the «conditions in which people are born, grow, work, live, and age, and the wider forces that shape the conditions of daily life» (WHO, 2025c, p.1).
[5] «Defined as prenatal development to eight years of age» (CSDH, 2008, p.4)
[6] The CSDH (2008) defines ECD as the development of a child's «physical, social/emotional, and language/cognitive domains» (CSDH, 2008, p.4) during early childhood.

consequence of unequal access to health care *per se*, but are largely influenced by the «conditions in which people are born, grow, live, work, and age» (CSDH, 2008, p.1).

The inequalities outlined above challenge the notion of justice and are thus classified as a social injustice by the Commission on Social Determinants of Health (CSDH) (2008). Yet, are they, in fact, unjust? According to the concept of *justice* presented by John Rawls (1999), a prominent Professor of Political Philosophy at Harvard University and author of *Theory of Justice,* the answer is unequivocally affirmative. In his seminal work, Rawls defines justice as fairness, based on two fundamental principles:

> *First: each person is to have an equal right to the most extensive scheme of equal basic liberties compatible with a similar scheme of liberties for others.*
>
> *Second: social and economic inequalities are to be arranged so that they are both (a) reasonably expected to be to everyone's advantage, and (b) attached to positions and offices open to all (Rawls, 1999, p.53).*

In simpler terms, Rawls argues that justice is a principle that guarantees fair equality of opportunity (Daniels, 2017), ensuring that «all social values – liberty, opportunity, income and wealth, and the social bases of self-respect – are (…) distributed equally unless an unequal distribution of any, or all, of these values is to everyone's advantage» (Rawls, 1999, p.54). An unjust scenario, on the other hand, should therefore be understood as a situation where existing inequalities «are not to the benefit of all» (Rawls, 1999, p.54), but are rather the result of a moral structure of society that allows for the predetermination of the opportunities in life available to individuals of distinct backgrounds since the moment they are born, and irrespective of their abilities (Rawls, 1999). Sadly, such inequalities are found across multiple sectors of society, with Rawls further describing this gap as evidence that the sense of justice is not embedded in the way the major social structures of society[7] – which define «men's rights and duties» (Rawls, 1999, p.6) and strongly influence «what they can expect to be and how well they can hope to do» (Rawls, 1999, p.6) – are organized.

In sum, the concept of justice presented above, strongly advocates for universal access to health care. Health, as «a state of complete physical, mental, and social well-being and not

[7] «By major institutions I understand the political constitution and the principal economic and social arrangements. Thus, the legal protection of freedom of thought and liberty of conscience, competitive markets, private property in the means of production, and the monogamous family are examples of major social institutions» (Rawls, 1999, p.6).

merely the absence of disease or infirmity» (WHO, 2020, p.1), constitutes a determining factor on the range of opportunities available to an individual, by affecting their capabilities. Accordingly, the view of justice as a principle that entails a social responsibility to safeguard the full spectrum of opportunities available to all necessarily calls for the protection of the capacities of all - a goal that is partly achieved by protecting their health. Public intervention should therefore take into account all the social determinants of health, so that it can have a wider and more significant impact on the way people live (CSDH, 2008; Daniels, 2017).

Now that we argued in what terms the social gradient in health is unfair, the next question one might ask is: why is it a problem? Considering that we are examining the Portuguese case, three main reasons support an affirmative answer: first, the social implications of such a phenomenon; second, its economic consequences; and finally, the fact that it is inconsistent with the existing legal frameworks.

From a societal perspective, health inequalities not only result in a higher incidence of illness among disadvantaged populations (Annex E) but also contribute to the perpetuation of poverty cycles, «deepening the plight of individuals trapped within it» (Fu et al., 2024, p.1). This phenomenon, known as 'Poverty Trap', cannot be inverted simply through the allocation of resources to these individuals. The 2019 Nobel Prize laureates in Economics found that this approach often fails to achieve its intended outcomes because beneficiaries do not allocate resources towards aspects that foster their «sustained and positive development, such as health and nutrition» (Fu et al., 2024, p.1). Health, in turn, can significantly influence a household's income stability and overall living standards, thereby deepening the socio-economic vulnerabilities that originally undermined it and potentially leading to a 'Health Poverty Trap'. This causal link between poverty and health (Figure 3.2) highlights that breaking these cycles of vulnerability requires relevant actors to understand «the unique psychological and health

behavioural preferences» (Fu et al., 2024, p.1), of the poorer segments of society (Fu et al., 2024).

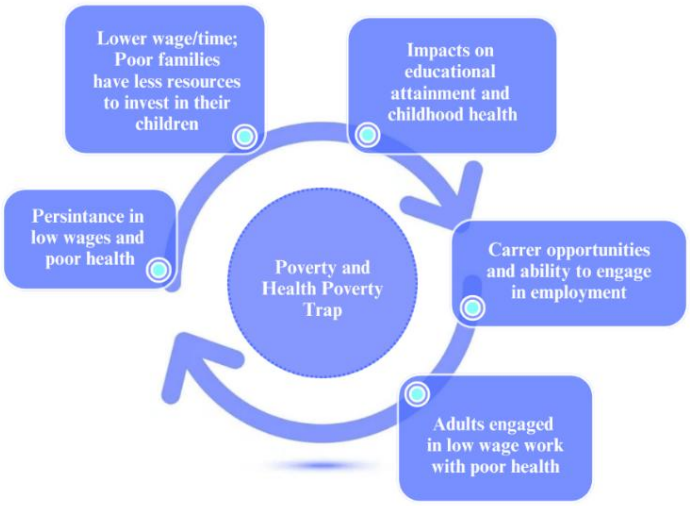


Figure 3.2 Poverty and Health Poverty Trap
Source: Adapted from Brown (2020)

Such effects do not solely impact the poor but can also have significant repercussions for the national economy. In fact, studies show that «poor health reduces global GDP by 15% each year (…) from premature deaths and lost productive potential among the working-age population» (Remes et al., 2020, p.1). Accordingly, lower-income countries face sustained low levels of income, consumption, and health, which they find very hard to contradict, in contrast to developed countries, where overall health levels tend to be higher (Fu et al., 2024). Beyond negatively impacting a nation's economic success due to adverse health outcomes, the social gradient in health poses a risk to the enduring viability of national health care systems, as it incurs considerable extra expenses. Research conducted in 2016 regarding the financial implications of health inequalities for the English NHS revealed that individuals from the least advantaged backgrounds, experienced higher rates of admission for both elective and emergency care than those from wealthier backgrounds. In the case of emergency care alone, the most deprived registered nearly twice (1,7%) the admissions rate observed among the wealthiest. When converted into financial terms, these disparities were approximated at £4.8 billion, reflecting the additional lifetime inpatient hospital expenses for the most disadvantaged populations compared with those in the wealthiest category (Annex F). The study also revealed that the shorter life spans recorded among the most underprivileged communities were insufficient «to outweigh the higher average» (Asaria et al., 2016, p.1) costs related to inpatient hospital services projected for these populations (Asaria et al., 2016).

In addition to its economic consequences, the ongoing high levels of health inequality in Portugal (as previously exposed in Annex E) contradict the nation's legal and constitutional framework, as well as the very foundational aspects of the Portuguese SNS, which is established on the premise of guaranteeing equitable health protection for all (Pereira & Furtado, 2011). Under Portuguese law, the protection of health is recognized as a right of all individuals, which presupposes «the creation and development of economic, social, cultural, and environmental conditions that guarantee sufficient and healthy standards of living, work, and leisure» (Health Bases Law, Base 1, n.º1). Another key law is Article 64 of the Portuguese Republic Constitution, which states that everyone has the duty to defend and promote health protection. The same legislation further stipulates that the State's responsibility is met through the Portuguese SNS, which aims to ensure that all citizens have universal, broad, and mostly free access to health care, based on their socio-economic status (Portuguese Republic Constitution, Article n.º 64, n.º 2). But beyond being a national duty, health protection is acknowledged as a fundamental human right (Universal Declaration of Human Rights, Article 25). Disregarding this right, therefore, means failing to uphold the dignity and the equal and inalienable rights of all humans, which form the foundation of freedom, justice, and peace in the world (Universal Declaration of Human Rights).

While it stands in opposition to the country's body of laws, tackling health inequalities is a pressing issue in Portugal, which is still recognized as one of Europe's most economically unequal nations (Doetsch et al., 2025). In line with this concern, addressing health inequalities and supporting the needs of the most vulnerable groups has been a key objective of Portugal's National Health Plan since the dawn of the new millennium (Ministério da Saúde & Direção-Geral da Saúde, 2004, 2013, 2022). Even so, two reports from the WHO in 2010 assessed the Portuguese SNS and underscored the necessity of tackling considerable health inequalities through effective and collaborative policies across various sectors (Campos-Matos et al., 2016). A year later, in 2011, the gap in the prevalence of chronic health conditions between the highest and lowest income groups stood at 18.7 percentage points, with 43% of the poorest and 25% of the richest segments of society affected. By 2022, after more than a decade, this gap had narrowed by only 5%, while the prevalence of illness had increased by over 8% in both groups (Annex E). These figures provide evidence of the need for a «stronger policy coherence, political commitment to health equity, better intersectoral collaborations and enhanced data integration» (Doetsch et al., 2025, p. 1) in the country, to achieve a more equitable, healthy, and just society (Doetsch et al., 2025).

The fact that the majority (80-85%) of drivers behind health inequalities arise from sectors outside of health care (Doetsch et al., 2025) and that patient health is influenced by multiple factors – e.g., social and psychological – that extend beyond the biological domain (Bispo et al., 2022), make PHC a potential avenue for addressing the social gradient in health. Although various definitions have been proposed for the concept of PHC, the WHO defines it as a «whole-of-society approach to health that aims at ensuring the highest possible level of health and well-being and their equitable distribution by focusing on people's needs and as early as possible along the continuum from health promotion and disease prevention to treatment, rehabilitation and palliative care, and as close as feasible to people's everyday environment» (WHO, 2025a, p.1). This ideally long-term follow-up is carried out by the FHT[8], which can have a significant impact on the well-being of households, due to the access these health professionals have to the biopsychosocial context of their patients (Santos et al., 2013), added to the fact that they are the 'gateway' to the Portuguese SNS (*Guia do Utente*, n.d.).

Building on the aforementioned concepts, and besides aiding in the collection of relevant data and insights on health inequalities in Portugal, this study seeks to provide empirical and literature support for the potential role of PHC in contradicting the social gradient in health in the country, by facilitating access for lower-income[9] families[10] to a FHT and implementing community-based intervention teams. While not entirely unprecedented, these methods reflect a contemporary approach to public management that is transforming health care (Porter & Lee, 2013; C. Rodrigues, 2023). Some call it the 'value agenda' (Porter & Lee, 2013). This Value Based Health Care (VBHC) model seeks to optimize health results, patient contentment, and financial efficiency through an approach ultimately aimed at maximizing added value for the patient, with a clear emphasis on prevention, health promotion, and ongoing care, alongside greater patient accountability for their health choices (C. Rodrigues, 2023). PHC is therefore the care model most consistent with the principles of VBHC, offering a promising direction for future advancements.

[8] Couchiching Family Health Team (CFHT) explains that «FHTs usually consist of doctors, nurses, nurse practitioners and other health care professionals who work collaboratively, each using their experience and skills so you receive the best care, when you need it, as close to home as possible» (*What Are Family Health Teams?*, n.d., p.1).

[9] «When a household's disposable income per adult equivalent falls below the poverty line, all members of that household are considered to be living in poverty» (Peralta et al., 2024, p.14). In 2022, the poverty line in Portugal was set at €551 per month (€6,608 annually), in nominal prices (Peralta et al., 2024).

[10] The term 'family' is hereby understood as «a group of two or more persons related by birth, marriage, or adoption who live together» (Health Resources & Services Administration, 2023, p.1).

4. Methodology

Research Design

The present study follows a *mixed methods* approach. This research framework is intended for research that benefit from integrating qualitative and quantitative data, as the combination provides deeper and more accurate conclusions. Accordingly, and as detailed in Chapter 2, this study's research question requires the analysis of relevant data, informed by existing literature that elucidates the underlying causes of identified causal effects or tendencies. This is particularly relevant for understanding the link between poverty and lower health levels and, further, the effect of assignment to a FHT in mitigating such tendencies, as explored in the following chapters.

To reach such conclusions, this research employed a separate analysis of qualitative and quantitative data, followed by an integrative phase in which the results were compared and interpreted collectively. This approach aimed to identify areas of convergence, divergence, or complementarity between the qualitative and quantitative data. Accordingly, the present study combined empirical data collection – from online open data available and provided data – and a narrative review of key academic and grey literature, enabling a more robust response to the research question by testing and ultimately confirming the main hypotheses:

> *H_1 – There is a statistically significant positive correlation between regular follow-up by a FHT and improved health outcomes among individuals experiencing socio-economic vulnerability.*

The sources referenced in this analysis were selected based on the platforms on which they were available, including ResearchGate, PubMed, and Sage. Papers not listed on these platforms were considered if issued by reputable entities such as the WHO and its subsidiaries, the Portuguese State and its branches, and renowned academic, consulting, and public institutions. Besides documents that provided a historical overview of the Portuguese SNS and theoretical frameworks on relevant topics, sources that offered insights into the current situation in the country were chosen, provided they were published within the past 3 years, to ensure they accurately reflect the current reality.

Data Collection and Analysis

Both primary and secondary data sources were employed in this study.

The collected primary data consists of qualitative insights gathered through interviews with key stakeholders, including social workers from the Portuguese SNS, economists specializing in health, and members of the SNS boards of directors in both hospital and primary care settings. These participants were selected for their ability to offer informed perspectives on the social gradient in health in Portugal, as well as to evaluate and provide feedback on the recommendations put forward in this thesis. Secondary (quantitative and qualitative) data were obtained from two main sources. On one hand, publicly available datasets were accessed through established platforms such as Eurostat, Pordata, INE, and Statista. On the other hand, specific and relevant data were provided directly by the Loures-Odivelas Local Health Unit (ULSLOD) for the purposes of this research.

The quantitative data provided by the ULSLOD were analysed through the Stata software. For this analysis, only the health and social conditions included in the dataset that collected a total sample of at least 10,000 patients were considered.

Finally, in describing the current state and trends of the concepts under study, only data from 2022 onward were considered to ensure the information's currency. Data preceding this period were included solely to analyse the evolution of specific indicators.

5. Reassessing the Foundations of the Portuguese SNS

The first steps towards the Portuguese Health System were taken at the beginning of the 19th century, amidst the end of a dictatorship – on April 25, 1974 – that had ruled the country for 40 years. Portugal's *Estado Novo* dictatorship, an authoritarian regime led by António de Oliveira Salazar, that lasted from 1933 to 1974, came hand in hand with the industrial revolution of the country, as many argue the beginning of it as a way of controlling the working class, which was becoming increasingly aware of the rights it was being deprived of. In fact, the escalating tensions between the higher social classes and the working class led to the 1926 military coup, which paved the way for the *Estado Novo* regime (Leys et al., 2019).

The historical context previously described is critical for understanding the conditions and interests that underpinned the first forms of health care welfare programs in the country. In Portugal, as well as in other capitalist economies, the concerns with the well-being of the people began as soon as productivity became a problem (Leys et al., 2019).

5.1. Health Assistance policies of the Estado Novo Regime

The absence of a welfare state marked the *Estado Novo* regime. The corporatism ideology implemented by Salazar's government followed the belief that the State should not assume the responsibilities traditionally held by the family, private initiative, or charity, but instead should play a supplementary part (Pimentel, 2016). Social Protection services were therefore carried out by two distinct subsystems – Provident Funds and Assistance –, both under the jurisdiction of separate ministries (Pimentel, 2016).

The so-called Provident Funds System, aimed essentially at addressing the social needs of employed people, their employers, and their respective families (Law n.º 2115/1962). In turn the Assistance System was primarily focused on providing for the most vulnerable population (Pimentel, 2016), including the unemployed and the orphans, by «coordinating, supervising and promoting» (Law n.º 1998/1944) the private initiative of social institutions, motivated by the «generous impulse of social and Christian solidarity» (Decree-Law n.º 35108/1945). A more pronounced participation of the State was expected only should the private initiative be too scarce, and according to the "financial means" available to the government (Law n. º 1998/1944). Nonetheless, as outlined in Law n. º 1:998 (1944), the State remained responsible

for ensuring the availability of services of a greater complexity or public interest, such as the hospitals, sanatoriums, asylums, psychiatric clinics, and first aid centres made available by the *Estado Novo* regime (Decree-Law n. º 35108/1945).

At this time, Portugal was grappling with extreme levels of poverty. A study run by Daniel Barbosa and Ferreira Dias in the 40's revealed that most Portuguese workers earned just enough to cover 70% of their basic food expenses (Pimentel, 2016). The two decades succeeding the 1950s were marked by continuous economic growth, driven by industry. While the extent and severity of poverty lessened, it remained a difficult reality for many Portuguese individuals. In 1973, 31.4% of the population still lacked the income necessary to meet their basic needs (M. Silva, 1982). In parallel, access to social support was limited. In a country with a significant rural population, agricultural workers were only included under a social security scheme, whilst in the final years of the regime, in 1972 (*Evolução Do Sitema de Segurança Social*, 2024). Until then, these workers had only access to weak social support from the so-called 'Casas do Povo', which, by 1959, covered only 19.6% of rural workers. Meanwhile, only 70% of the active population in the industry, commerce, and service sectors were being covered by the Provident Funds System (Pimentel, 2016).

A Planned Problem

The establishment of a universal social assistance system focused on human rights only found solid ground after the end of the dictatorship, with the April 25th revolution, in 1974 (Pimentel, 2016). Until then, the initiative of the State was predominantly endorsed by economic reasons (Leys et al., 2019), with the improvement of the existing social protection systems, as well as the expansion of their coverage, happening in the 60's (*Evolução Do Sitema de Segurança Social*, 2024), coinciding with the period in which the State strongly invested in the country's industrial development (M. Silva, 1982).

Supporting evidence for the above is the law itself. In 1945, the Decree-Law on the organization of the Assistance System stated that the efforts to combat diseases such as «smallpox, typhoid fever, diphtheria, malaria, syphilis, trachoma, tuberculosis, and other preventable or social diseases, which annually cause(d) tens of thousands of victims» (Decree-Law n.º 35108/1945), were crucial, as these losses diminished «the nations' wealth by hundreds of thousands of *escudos*, with human capital being its highest economic value» (Decree-Law n.º 35108/1945). Meanwhile, a universal right to health care access was never mentioned.

5.2. What the Democracy found: The effects of an absent welfare State

Despite the first advances towards universal health coverage during the dictatorship, the government of the Third Portuguese Republic found a sorrowful inheritance from fascism (Assembleia da República, 1975). In 1979, António Arnaut, the Minister of Social Affairs in office at the time, heavily condemned the profound disparities in health care access found across the country, stating that, «in Portugal, there (were) still people who (were) born, live(d) and die(d) without ever receiving medical care» (Comissão Parlamentar da Saúde, 2023, p.59).

In a study published in 1978, health was mentioned as Portugal's most severe 'illness', with the presented data further confirming a reality that was already in plain sight (Morais, 1979). In 1975, Portugal had the poorest health levels in Europe (Morais, 1979) and ranked lowest in some of the most defining health status indicators (European Core Health Indicators - ECHI) (European Commission, n.d.), such as life expectancy at birth, which was recorded at 68 years in Portugal, compared to 75 years in Sweden. Additionally, regarding infant mortality, Portugal ranked far above all other EU27 member states, with a rate over four times that of Sweden. More precise numbers reveal how, in 1975, the newly established democracy was confronted with the needs of 300,000 individuals with mental disabilities, 600,000 with motor disabilities, 500,000 alcoholics, and the deaths of thousands of people from infectious and contagious diseases (Assembleia da República, 1975). Meanwhile, the most remote populations would have to travel tens of kilometres to reach the nearest medical facility and hundreds of kilometres in search of specialized or emergency care (Comissão Parlamentar da Saúde, 2023, p.58). In light of this reality, the only solution would be a universal and unrestricted access to health protection services and resources (Assembleia da República, 2023). The only solution was the SNS.

5.3. The access to health care as a cornerstone of Portuguese Democracy

As in the United Kingdom (UK), the Portuguese national health system was established with the primary aim of addressing the health care needs of a deeply economically and socially vulnerable population. In the UK, this initiative emerged in the aftermath of the Second World War (1948), as part of a broader welfare agenda. In Portugal, it was established in 1979,

following the fall of a 40-year dictatorship, marking a foundational moment in the country's democratic and social reconstruction. In both cases, national health systems were designed as instruments of social justice, aiming to ensure universal access to health care, mostly at no cost, for individuals of all income brackets or social backgrounds (Fragata, 2022; Graça, 2015).

Despite its universal nature, the establishment of a national health system in both countries was primarily driven by the need to address the health care needs of an extremely impoverished population. In Portugal, as António Arnaut – often considered the founder of the SNS – stated in 1978, this was a project aimed at transforming health from a «privilege of the few into a right for all» (Comissão Parlamentar da Saúde, 2023, p.57) while being «fundamentally intended for the poorer demographics, for the real country, of underprivileged children, poor workers, and impoverished pensioners» (Comissão Parlamentar da Saúde, 2023, p.58). However, growing evidence shows that the most socioeconomically disadvantaged groups are now among those most at risk of experiencing negative impacts on their access to health care goods and services, in light of the increasing challenges faced by the Portuguese SNS (Fragata, 2022). To support this claim, the following chapter shifts its focus from the historical and moral foundations of the SNS to the contemporary reality of inequality, exploring how poverty and social vulnerability are manifested in Portugal today and how they continue to influence the population's health outcomes.

6. Health Inequality in Portugal: A persistent reality

Although the most recent poverty indicators (ICOR 2024) show an encouraging improvement compared with 2022, the rise in homelessness and in families unable to meet basic needs – such as housing and health – poses serious challenges (C. F. Rodrigues, 2025a). These trends hinder the country's democracy and social cohesion, calling for new public policies to reduce such inequalities (C. F. Rodrigues, 2025b). Contributing to the development of such policies, the present chapter elaborates on the dimensions and social consequences of poverty and health inequalities in Portugal.

6.1. Understanding Poverty in Portugal: Who, Where, and How

Poverty is usually assessed based on a household's disposable income, adjusted through an equivalence scale that reflects its size and composition. This adjustment of total disposable income, which encompasses labour earnings, capital income, and social transfers, allows for the calculation of *equivalised disposable income* (Peralta et al., 2023). In their research entitled «Portugal and the Social Elevator: Is Being Born Poor a Fatality?», Peralta et al. (2023) present the following example:

> *A household composed of two adults with a disposable income of €1,000 lives in better conditions than a household with the same income but also supporting a child* (Peralta et al., 2023*, p.5).*

This is, of course, because identical income levels correspond to different levels of need, depending on household composition. Generally, the larger the household, the greater its needs. However, this relationship is not strictly linear. For instance, two adults typically sharing an income of €1,000 are likely to experience better living conditions than a single adult subsisting of €500, due to the shared burden of common household expenses. Hence, the equivalised disposable income of a household is calculated by adjusting its total income according to its composition: the first adult counts as 1, each additional adult as 0.5, and every child (or minor) as 0.3. Dividing total household income by its composition allows for a more accurate assessment of its actual wealth level. Consequently, when a household is classified as poor, all its members – who share the same pool of resources – are considered to be living in poverty (Peralta et al., 2023).

Measuring poverty by employing metrics that reflect its monetary aspects is, in fact, a common approach. This is because households that drop below a particular level of equivalised disposable income lose their ability to meet specific essential needs. This 'level' is identified as the *poverty threshold,* which, as per Eurostat, should equal 60% of the median equivalised disposable income per adult in the country. Accordingly, the estimated poverty threshold for Portugal, in 2024, was €632 per month and €7,588 per year, in current prices, meaning that any Portuguese household living on amounts below these figures is considered poor. In 2023, these values were 591€ and €7,095, respectively (Peralta et al., 2025).

Is Poverty a Reality in Portugal?

The percentage of the resident population in Portugal (2023), living with an equivalised disposable income below the poverty threshold – indicated by the *at-risk-of-poverty rate* – was 16.6%, which translates to nearly 2 million (1.8 million) people being at risk of poverty (Figure 6.1).

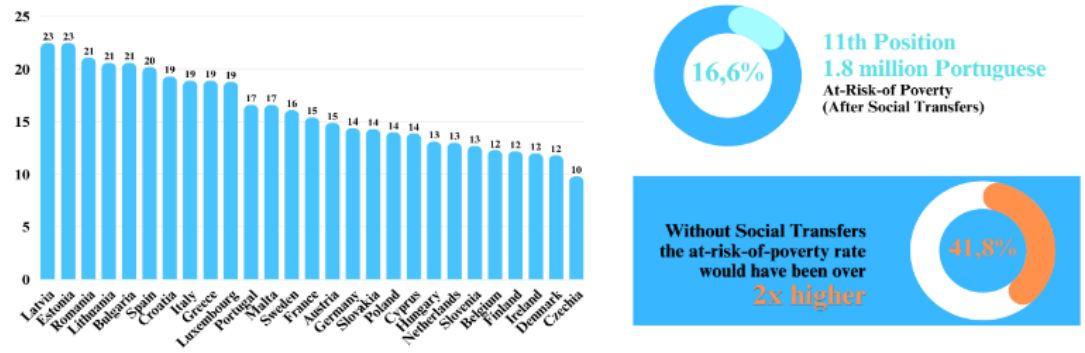


Figure 6.1 At-risk-of-poverty rate, before and after social transfers (EU27, 2023)
Source: Adapted from Pordata (2025); Peralta et al. (2025)

These figures reflect a decrease of only 0.4 percentage points from the 2022 estimate, which recorded 17%. In fact, as of 2015, a year still influenced by the aftermath of the sovereign debt crisis that affected Portugal from 2010 to 2014, the rate of individuals at risk of poverty has shown a consistent downward trend, only disrupted by the impacts of the COVID-19 pandemic. Still, in 2022 and 2023, these values returned to their pre-pandemic standards (Annex G) (Peralta et al., 2025).

In addition to the indicator noted above, two other metrics are frequently used to assess a country's poverty level. These include the *severe material and social deprivation rate*, as well as the *percentage of households living with very low work intensity*. Let us go through each of them one at a time, beginning with the rate of severe material and social deprivation. For this measure, it is necessary to consider the list of deprivations in Annex H, as the classification of severe material and social deprivation applies only to individuals who face seven or more of the listed conditions. In 2024, Portugal ranked 14th among the EU27 nations on this indicator, with a score of 4.3%, indicating that almost half a million residents lived in deficient conditions (Annex I) (Peralta et al., 2025; Pordata, 2025g). However, when simply considering a state of material and social deprivation – not severe, determined by the confirmation of 5 to 6 of the listed deprivations in Annex H – this rate rises to 11% (2024), more than double the previously observed figures. Since 2022, both metrics have shown a steady decrease (Figure 6.2) (Peralta et al., 2025). Regarding the proportion of households experiencing very low work intensity, the

latest statistics indicate a rate of 4.8% (2024), suggesting that nearly 400,000 national residents live in households where less than 20% of potential working time is used (Pordata, 2025).

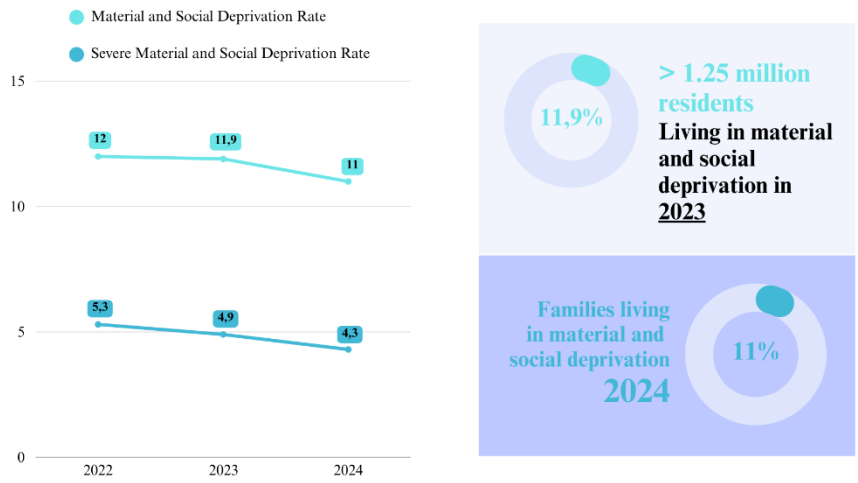


Figure 6.2 Material and Social Deprivation Rates, Portugal (2022 – 2024)
Source: Adapted from Peralta et al. (2025)

When looking at the latest European averages for the three indicators outlined above, Portugal displayed more favourable values than the community average in 2023. Still, regarding the at-risk-of-poverty rate, Portugal surpassed the EU27 average (16.2% in 2023) by 0.8 percentage points. For the rates of severe material and social deprivation, and households living with very low work intensity, the national scores were lower by 1.9 and 1.3 percentage points, respectively (Figure 6.3) (Peralta et al., 2025).

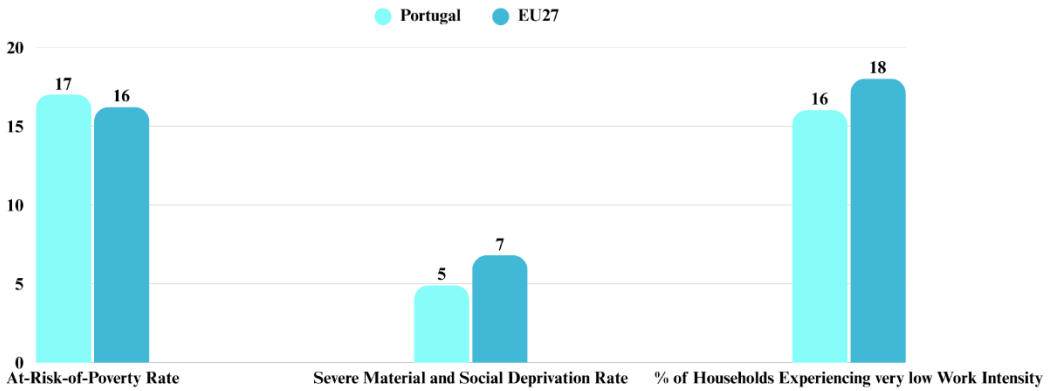


Figure 6.3 Portugal vs. EU27: Three Key Poverty Indicators (2023)
Source: Adapted from Peralta et al. (2025)

It is also worth noting that these three indicators represent distinct dimensions of poverty and social exclusion, which, when combined, form a single statistic – the *at-risk-of-poverty or social-exclusion rate*. This metric thus reflects the share of the resident population whose households encounter at least one of the conditions previously described – risk of poverty, severe material and social deprivation, or low work intensity. For this measure in 2024, Portugal was ranked 13th among the EU27 countries, with a percentage of 19.7% – representing approximately 2.1 million people affected (Peralta et al., 2025; Pordata, 2025e). Despite this value showing a slight decrease of 0.4 percentage points from 20.1% in 2023, the country's result is still in proximity to the EU27's 2024 average of 21% (Eurostat, 2025c). Additionally, unlike other indicators, the at-risk-of-poverty or social-exclusion rate increased by 20 thousand people from 2022 to 2023, and this elevation was not entirely reversed despite the recovery in 2024 (Annex J; Appendix E) (Eurostat, 2025d; Peralta et al., 2025).

The indicators presented above should not be underestimated. Although Portugal does not stand out negatively compared to other EU member nations, and some indicators have even shown short improvements, the presented numbers are still high: roughly one-fifth of the resident population remains at risk of poverty or social exclusion. At the same time, poverty intensity rates (after social transfers) rose by 0.5 percentage points between 2022 (4.5%) and 2023 (5%), indicating that, in 2023, the population living in poverty had, on average, a disposable income 5% below the poverty threshold. The poverty severity rate[11], a more precise indicator, also registered less favourable outcomes. In 2023, a rate of 2.3% reflected a 0.3 percentage-point increase in the severity of poverty, indicating that the poorest individuals fell further below the poverty line than the previous year (Appendix F) (Peralta et al., 2025).

Finally, it is important to note that the provided statistics originate from official databases compiled from surveys of individuals residing in conventional family settings. These figures, therefore, do not account for those experiencing homelessness, incarceration, temporary housing, or who belong to nomadic groups. Yet, for the homeless community, data indicated a consistent rise in their numbers since 2018, reaching a peak increase of 21.3% in 2023 (Appendix G) (Alves & Observatório Cáritas, 2025). Additionally, the prevalence of 'shy

[11] Both poverty intensity and poverty severity indicators measure how far below the poverty threshold the income of poor individuals falls. However, poverty intensity captures the average shortfall from the poverty line, considering all individuals bellow it equally. For the Poverty severity rate, on the other hand, the distance between the two values is adjusted for each individual, considering how far they fall below the threshold line – the larger the gap, the higher the weight –, thus offering a more accurate picture of poverty's depth (Peralta et al., 2025).

poverty' in Portugal is worth highlighting, as it reflects realities that are notoriously difficult to detect and, thus, to study (Clérigo, 2023).

In light of this last note, all the previously presented data should prompt a deeper reflection on these matters, not only due to their magnitude but also because of their inherent meaning (Peralta et al., 2025).

Beyond the Numbers: What Poverty Means for Two Million People in Portugal?

The fact that the proportion of society living in poverty has been around 20% of the total population since 2003, despite some fluctuations, calls for a better understanding of this reality (Diogo, 2021).

To begin with, let us delve into the origins of poverty. Although this may not elucidate all factors, it is a recognized reality that poverty can be inherited from one generation to another. Accordingly, children who are born and raised in households considered to be at risk of poverty, are more prone to experiencing economic hardship as adults. The data support this. In fact, a study published in 2023, referring to data collected in the Living Conditions and Income Survey – in Portuguese*, Inquérito às Condições de Vida e Rendimento (ICOR)* – of 2019[12], determined that the educational level, employment status, and nationality of the father, as well as the living conditions of the household, have determinant effects on the future at-risk-of-poverty rates – referred to as poverty rates, in the mentioned study – faced by the children[13] (of both masculine and feminine gender). The main findings of this research were compiled in Appendix H (Peralta et al., 2023).

Building on the earlier conclusions, the same research further examined the extent to which poverty is, in fact, passed down across generations in Portugal. To that end, the responses given by individuals born in three distinct generations – 60s, 70s, and 80s – were evaluated, considering their past financial situation as teenagers compared to their current reality[14]. This

[12] The 2019 ICOR relied on statistical data drawn from a representative sample of the population living in Portugal (Observatório Nacional de Luta Contra a Pobreza, 2019).

[13] The mentioned study gathered responses from individuals aged 25 to 59 regarding their family situation at age 14.

[14] Despite gathering responses from individuals born in the 60s, 70s, 80s, and 90s, for this specific analysis, the decision was made to only use responses from those born from the sixties to the eighties. This choice was driven by the understanding that, when the study was conducted (in 2019), these individuals were in a later stage of their professional journeys, providing more reliable and comparable insights (Peralta et al., 2023).

analysis revealed that the perpetuation of poverty across generations is a strong reality in the country and shows no signs of diminishing. Consistently across all decades studied, a 11% margin separated the poverty rates of individuals from financially comfortable backgrounds at age 14 (11-13%) from those from financially challenging backgrounds at the same age (22-24%). Still, overall poverty rates declined for those born in the 1980s, of both financial backgrounds, even though the influence of those backgrounds on poverty levels remained consistent with the trends observed in the other two decades (Figure 6.4) (Peralta et al., 2023). These observations provide undeniable proof that, in Portugal, being born into poverty is still a life 'sentence' (Clérigo, 2023). However, beyond being an inherited condition, poverty is a lived reality – one that carries daily hardships.

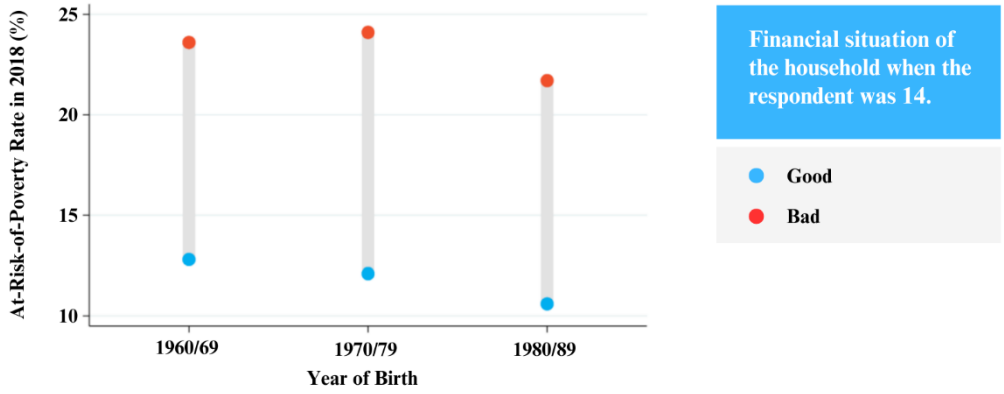


Figure 6.4 Link between an individual's household finances at 14 and their 2018 at-risk-of -poverty rate, across different birth cohorts
Source: Retrieved from Peralta et al. (2023)

While it is known that no or underemployment are major drivers of poverty (Annex K) (Peralta et al., 2025), Portugal records an alarming number of working poor. In 2024, the country's in-work at-risk-of-poverty rate hit a record of 9.2%, placing it as the 11th highest among the EU27 nations (Annex L) (Eurostat, 2025a). Such poorly paid occupations typically require more weekly working hours[15] (Alves & Observatório Cáritas, 2025) and frequently expose employees to greater health and safety hazards (Annex N) (Peralta et al., 2025). This shows how, besides subsisting on sometimes very demanding, precarious or no jobs, poor individuals are faced with deprivations that surpass the financial realm. In fact, in a 2024 study, results indicated that poor individuals were more likely to do little exercise (59,5%), while

[15] Research shows that the quintile of works receiving the shortest amount of salary per hour is the one that works the highest value of weekly hours – more than 40,1 hours/week (Annex M) (Peralta et al., 2025).

having a low consumption of healthy foods, such as fruits (5,9%) and vegetables (7,2%) – in the non-poor population, these rates fell to 48,6%, 3,5% and 4,4%, respectively. Besides this, poor individuals also reported experiencing greater day-to-day difficulties, such as in seeing even when wearing eyeglasses (29%), walking or going up the stairs (15%), and in remembering or maintaining focus (24%). These figures drop to nearly half when considering the non-poor population. Along with encountering greater difficulties, poor individuals often feel lonelier and more socially isolated than their wealthier peers, with nearly 16% indicating they seldom or never feel happy (Annex O) (Peralta et al., 2024).

More recent figures reveal that, in terms of accommodation, almost 40% (38.5%) of the poor population in Portugal lives in homes with roofs that are permeable to water or rotten, while nearly 30% (27.7%) live in overcrowded homes. In financial terms, over 42% of the poor population (2 out of every 5 poor families in Portugal) experienced difficulties reaching the end of the month with their expenses, while 26.4% were over-indebted. For the non-poor population, these rates fell to 19% and 16%, respectively. The poor population has also been shown to be more prone to live in noisy neighbourhoods or towns, in more polluted environments, and in places with a higher rate of criminality or violence (Annex P) (Peralta et al., 2025).

The rising prices aggravate this reality. Although poverty rates have registered a major positive evolution in 2023 and beyond, inflation is affecting the purchasing power of households. Despite inflation reaching 7.83% in 2022, its highest point this millennium, and then 4.31% in 2023 (Pordata, 2025f), the average income for impoverished workers increased by just 2.1% compared to 2022, whereas non-poor workers saw an 8.1% increase, contributing to an overall average rise of 7.4% (Appendix I) (Instituto Nacional de Estatística, 2025c). Accordingly, recent research suggests that the great majority of the population – regardless of the income level – has perceived a decline in their purchasing power (96.7% of the respondents of an 838-participant sample[16]), as well as rising food prices. Consequently, the same study found that there was an overall adaptation of the families' consumption habits (93%), with a significant part of them quitting the acquisition of certain food items (64.2%) (Marques et al., 2025). In parallel, in 2023, there was a rise in the amount of resident population in the country incapable of affording complete and healthy meals (Appendix J) (Peralta et al., 2025)

[16] The mentioned study is based on a data base collected between December 2022 and May 2023, through an online survey that targeted people aged 18 years old or more, residing in Portugal (Marques et al., 2025).

Poverty Profiles in Portugal

Portugal faces an inherent, intergenerational poverty that disproportionately impacts identified groups and localities more prone to conditions of poverty or social exclusion. A recent study published by the Observatório Nacional de Luta contra a Pobreza (National Observatory for the Fight against Poverty) found that the following groups, listed in increasing order, face an at-risk-of-poverty or social exclusion rate significantly higher than the national average (Observatório Nacional de Luta contra a Pobreza, 2024):

1. Unemployed people (59.2% at-risk-of-poverty or social exclusion);
2. Renters with subsidized or free rent (40.5%);
3. People outside the labour Market, excluding the unemployed and retired (36.6%);
4. Single-parent families consisting of one adult and at least one dependent child (35.5%);
5. One-person households, especially those headed by women (31%);
6. Men and women aged 65 and over (30.6%);
7. Foreign population of non-EU nationality (28.6%).

Regarding place of residence, the Azores were deemed Portugal's poorest region in 2023, with 31.4% of its inhabitants at risk of poverty or social exclusion. While the North (22%) and Algarve (22.6%) were the most impoverished areas on the Portuguese mainland, it was the metropolitan region of Lisbon that exhibited the highest rates of material and social deprivation in 2023 (Observatório Nacional de Luta contra a Pobreza, 2024). Within Greater Lisbon, Amadora (€11 755) and Odivelas (€11 972) were the municipalities with the lowest median gross declared income per taxpayer, after personal income tax, with their amounts being merely €100-€200 higher than that of Azores (€11 660) (Annex Q) (Instituto Nacional de Estatística, 2025d).

Migration

The continuously growing immigrant population in Portugal constitutes a particularly vulnerable group (Lopes et al., 2024; Pordata, 2023), with serious consequences across various areas, including national health, as detailed below.

In 2022, Portugal recorded its highest-ever number of migration entries, reaching 118,000 (Pordata, 2023). The foreign population with legal residency tripled between 2015 and 2023 (Lopes et al., 2024), totalling 1,044,238 immigrants (Pordata, 2024) and currently constituting

approximately 10% of the Portuguese population (Lopes et al., 2024). In 2024, about 36% of this demographic lived at risk of poverty or social exclusion, with this rate affecting mainly those coming from non-EU27 countries (38.4%, versus 14.3% for immigrants from EU27 countries) (Pordata, 2025a). A 2023 report by Pordata revealed that the immigrants coming from non-EU27 countries made up 76% of the total foreign population, with the main non-European origins including Brazil (29.3%), the United Kingdom (6%), Cape Verde (4.9%), and India (4.3%) (Pordata, 2023). Likewise, according to the latest figures on the homelands of resident immigrants who acquired Portuguese nationality, the majority of individuals originate from (South) America, Africa, and Asia, in that specific order (Appendix K**)** (Pordata, 2025d).

About 30% of immigrants in Portugal occupy non-qualified jobs (Randstad Research, 2025) and are significantly exposed to precarious employment (35%) (Pordata, 2023), thus being affected by the ongoing crisis on housing access motivated by a shortage of supply in the main cities, where the migrant population is mainly focused, with particular emphasis in the metropolitan region of Lisbon (see Appendix L for the distribution of ethnic focus groups across municipalities) and Porto city (Azevedo et al., 2024; Pordata, 2024). In fact, data shared by the OECD revealed that, in the 3rd trimester of 2023, Portugal ranked first in the rate of countries with the highest effort rate, as measured by the ratio of housing expenditure/salary (Azevedo et al., 2024). This is partly why 22.4% (2024) of Portugal's foreign population lives in overcrowded homes, with those coming from non-EU27 countries being especially affected (24%, versus 10% for immigrants from EU27 countries) (Eurostat, 2025b). Such conditions, along with poverty, inappropriate work conditions, and social exclusion, lead to the common fact that, after an initial healthy period, immigrants tend to develop into an unhealthy state, leading to reinforced health necessities (D. Silva et al., 2022). A recent report from the national *Entidade Reguladora da Saúde* (Health Regulatory Authority) found that for about half of PHC units, most foreign patients sought medical assistance for acute illness (51.9%) and maternal-child care (49.2%), in that order (ERS, 2025).

The growing foreign population not only increases demand for health services but also poses particular challenges for the Portuguese SNS. Their accessibility is hindered by language barriers and a lack of knowledge of legal and administrative frameworks, and, simultaneously, the health services' capacity to act is diminished by linguistic challenges and human resource deficiencies (ERS, 2025). But not only. Immigrants from developing countries have a higher risk of carrying infectious diseases that are preventable through vaccines included in Portugal's national vaccination program. Some ethnicities present a greater incidence of determinate

chronic diseases, in addition to those linked to the tendentially stressful process of migration – obesity, diabetes, and cardiovascular disease. Other tendencies include the cultural acceptance of adolescent pregnancy and the reluctance to address sexual or reproductive health matters, leading to disinformation and consequential traumatic experiences (D. Silva et al., 2022). To close, it is also noteworthy that, regarding more specifically the PHC, the disregard for preventive/continuous care (Estrela, 2009), as well as the fact that these groups are more mobile than the majority of the population, with this tendency being stronger for younger migrants (Wachter & Hornstra, 2024), can hinder the national health system's capacity to intervene.

All these points shed light on how migration poses a challenge that may deepen health inequalities (D. Silva et al., 2022).

6.2. Social Gradient in Health in Portugal

A nation's social imbalances are often reflected in its health disparities (Cortez, 2010). This challenge, in fact, was not entirely overcome with the establishment of a national health system, as socioeconomic status and geographical area continue to predict an individual's well-being or their access to care (Estêvão, 2024).

Portugal exhibits marked differences in health care accessibility between its rural and urban areas. Rural regions face an inadequate number of medical personnel, limited services, and heightened poverty risks. At the same time, urban hubs like Lisbon and Porto enjoy notably superior access, with greater infrastructure and a higher number of health care professionals. However, even within these major cities, inequities persist, determined by a patient's address and their socio-economic status (Estêvão, 2024). Evidence for this is further strengthened by a 2025 study regarding the Portuguese population, which shows that, in 2023, individuals with lower incomes remained less healthy than their more affluent counterparts. This report defined health based on three aspects – personal health evaluation, occurrence of chronic diseases, and restrictions on routine activities because of illness –, with care access difficulties linked to poverty being defined by absences in medical appointments due to financial inability, prolonged waiting periods, or the geographical distance to the appointment venues. Results demonstrated a roughly 10% disparity in poor health outcomes, with the poorer population experiencing a higher burden than the wealthier population. In terms of access to care, the share of the poor

population unable to obtain appointments was more than twice that of the non-poor, with the gap being even greater for dental appointments (Table 6.1) (Peralta et al., 2025).

Table 6.1 Health Deprivation in Portugal, by socio-economic condition (in %)

	Poor Population		Non-poor Population	
	2022	**2023**	**2022**	**2023**
Health Status				
Personal Evaluation	21.3%	24%	11.6%	11.5%
Restrictions on Routine Activities due to Illness	42.3%	43.3%	32.4%	31.5%
Chronic or Long-Term Disease	50.6%	51.7%	43.5%	43.1%
Access to Health Care				
Medical Appointment or Treatment (Non-dental)	12.5%	10.2%	3.9%	3.8%
Medical Appointment or Treatment (Dental)	39.3%	43.2%	13.7%	14.9%

Source: Adapted from Peralta et al., (2025)

Additional information released by the Portuguese Health Ministry in its National Plan for Health (2021-2030) indicates that previous research has found a connection between increased poverty and elevated mortality rates across all causes. A link has also been established between low educational attainment and a higher occurrence of diabetes *mellitus,* hypertension, high total cholesterol, being overweight or obese, and reduced physical activity (Ministério da Saúde & Direção-Geral da Saúde, 2022). In another report, from the Portuguese Health Systems Observatory (Observatório Português dos Sistemas de Saúde) (2022), further data regarding health illiteracy among the poorest should raise additional concern. The study states that data from 2022 indicate that approximately 30% of the Portuguese population has a problematic or inadequate level of health literacy. This value reflects a substantial issue, not merely owing to its scale but also because of its consequences, as lower health literacy levels negatively impact one's:

1. Access to and knowledge regarding the use of available health services;
2. Personal management of one's health condition;
3. Health determinants;
4. The degree of patient engagement in their health journey.

Levels of Health Literacy are also essential for health maintenance and treatment success, and they significantly indicate social disparities in health, particularly affecting those in poverty, individuals with lower socioeconomic status, those with limited education, and older adults.

The high levels of health illiteracy in Portugal are not an isolated problem; instead, they reflect an inherent structural element that calls for the formulation of integrated solutions (Observatório Nacional de Luta contra a Pobreza, 2024). Therefore, as developed across the previous chapters, the disparities in health literacy, alongside other health domains, emerge from a sequence of deprivations to which poorer populations are exposed. Such weaknesses also further undermine these individuals' socioeconomic status, since ill health hinders their educational pursuits and employment opportunities (Peralta et al., 2025). In turn, lower educational levels not only affect one's health literacy (as noted above) but also undermine an individual's life expectancy. In fact, by 2018, a «25-year-old university-educated man (could) expect to live almost eight years longer than his lower-educated peer on average across OECD countries» (OECD, 2018, p.3), with this gap amounting to 4.5 years for women. The fact that – consistent with the tendencies described in Appendix H – children whose parents lacked secondary school completion have only a 15% chance of pursuing higher education, whereas children with at least one parent holding a degree had a 60% chance (OECD, 2018), demonstrates how education can serve as a key factor in intergenerational poverty and poor health. This occurs because children living in impoverished households not only experience poorer health but also, on average, exhibit lower cognitive development and are less prepared for school, leading to diminished educational outcomes. Furthermore, these children are more prone to developing behavioural and mental problems stemming from the stress induced by their financial circumstances (Hamilton et al., 2023).

Adding to the previous numbers, current data (2021-2023) regarding life expectancy in Portugal's various regions demonstrated that the most economically deprived areas (as described in Subchapter 6.1) recorded the lowest life expectancy at birth – Algarve (80.21 years) and Azores (78.19 years) –, when compared to the national average of 81.17 years (Annex R) (Instituto Nacional de Estatística, 2024). Shifting our focus to Greater Lisbon, a look at the perinatal and infant mortality data (2024) in Appendix M reveals that, even without substantial disparities, the three most deprived municipalities of the region – Sintra, Odivelas and Amadora – showed a greater number of overall deaths across all four life stages, when put beside the three wealthiest – Oeiras, Lisbon and Cascais. To be precise, about half of the regional deaths occurred in the top three poorest municipalities, while in the three richest municipalities this

figure remained consistently around 30%, marking a 20% divergence. It is also noteworthy that Lisbon and Cascais, which registered fatality counts similar to Sintra and Odivelas, were the only localities to exhibit a Gini Coefficient by taxable household (2023) substantially exceeding the regional average of 44.6% (Instituto Nacional de Estatística, 2025a, 2025b, 2025d). Socioeconomic disparities in mortality could explain such figures (Ho et al., 2024). Besides the increased well-being disadvantages encountered by a child born into poverty, it is well-known that maternal poverty during pregnancy is associated with «higher risks of low birthweight, pregnancy and birth complications, and maternal mortality» (Kramer et al., 2000; Singh, 2021, as cited in Hamilton et al., 2023, p.1). A recent UK investigation into the matter further confirmed that the most deprived mother-child dyads have a higher overall risk of infant mortality, stemming from four critical factors that accounted for 30% of the social inequality in infant mortality, collectively: preterm birth; smoking during pregnancy; maternal age (<20 years at childbirth); and maternal depression (Ho et al., 2024).

These findings reinforce the established understanding that an individual's income or education level is a strong predictor of their health. While low income and education levels are closely linked, in both cases, people tend to face a double disadvantage – not only do they become ill more quickly and at a younger age than their wealthier and more educated peers, but they also experience poorer health outcomes when receiving treatment (OECD, 2025). Lastly, it is worth mentioning that a 2025 OECD study on patients' self-reported health outcomes and experiences, published in February, found that Portugal exhibited significant gaps in the perceived quality of care (8%) and trust in the health care system (11%) between individuals of high and low income levels (OECD, 2025).

To further support the previous data, the next subchapter will present a regional analysis regarding access to PHC in the three most affluent and the three poorest municipalities within Greater Lisbon.

6.2.1. Access Disparities to PHC in Lisbon

The data used in the present analysis[17] were retrieved from the Ministry of Health's BI-CSP website, an official platform providing information on PHC across the country. The data was

[17] Access here: Access to PHC_Thesis.xlsx

collected in December 2024. As the purpose of retrieving this data was to analyse social disparities in the access to a FHT, only the typologies of PHC institutions meeting both of the following conditions were included: (1) being common to all municipalities, and (2) including General Practitioners (GP) among their human resources. Accordingly, for each of the municipalities seen in Appendix H, the following values regarding USF and UCSP units were collected:

- Nº of GP;
- Nº Patients allocated to a FHT;
- Nº Patients not allocated to a FHT;
- Nº Patients not allocated to a FHT, by their own option;
- Nº Patients registered in PHC.

For the analysis of the collected dataset, the six municipalities were divided into two categories: Sintra (SI), Amadora (AM), and Odivelas (OD) in one, the poorest, and Cascais (CS), Lisbon (LI), and Oeiras (OR) in the other, the richest. A significant disparity in the proportion of residents registered in the PHC units under consideration was observed between the two groups. In the poorest group, 89% of the population had registered in PHC, while only 48% of the wealthier group had done so. At the same time, the proportion of patients without a FHT who had required one was 27% higher in poorer municipalities (33%) than in the richer municipalities (6%). Regarding the percentage of the population assigned to a FHT, the poorer group remained at a disadvantage, with 67% compared to 94% in the richer group.

An inferential analysis of the dataset, conducted in Stata, reinforced these findings by showing a statistically significant (p = 0.000) and positive (β = 0.227) association between residing in the three poorest municipalities and not being assigned to a FHT (see Appendix N). These results confirm the persistence of the issues described in Cortez (2010), whose analysis 15 years earlier attributed them to rapid demographic growth in Amadora and Sintra – largely driven by immigration – and to an inefficient human resources management, leading to a drain of vital resources in health care that was already evident then, and persists until today with no signs of deceleration (Anderson, 2023).

6.3. Are Health Inequalities a Strategic Error?

The realities detailed earlier are profoundly misaligned with the right to health protection established by the Portuguese legislation, which includes not only the universal access to SNS's services, but also the safeguarding of economic, social, cultural, and environmental conditions that ensure the protection of individuals from childhood to old age (Portuguese Republic Constitution, Article n.º 64, n.º 2). The values and principles guiding the national health system's operations, through the enforcement of this right, are established in the Health Bases Law, which serves as the reference legal framework for national health affairs in Portugal (CNECV, 2019). As such, Base n.º 20 describes the nine principles that must direct the Portuguese SNS (Conselho Nacional de Ética para as Ciências da Vida (CNECV), 2019). Two principles, Universality and Equality, are particularly significant for this study. Universality reinforces the obligation to support everyone without bias, while Equality allows for the correction of prevalent health inequalities, focusing specifically on at-risk populations (Health Bases Law, Base n.º 20). However, notwithstanding such directives, evidence suggests that, over the years, there has been no consolidated strategy or dedicated drive to tackle the considerable health inequalities in Portugal.

In 2011, Pereira and Furtado warned that these concerns, although widely acknowledged, were largely excluded from the strategic approach of the Portuguese national health system and remained absent from the country's political agenda. In 2010 and 2011, two WHO reports evaluating the Portuguese National Health Plan further confirmed this gap, highlighting the need to address significant health inequalities through efficient and cross-sectoral policies (Campos-Matos et al., 2016). A decade later, and despite being a primary strategic goal in the National Health Plan since 2004 (Ministério da Saúde & Direção-Geral da Saúde, 2004, 2013, 2022), health inequalities persist in Portugal. Indeed, in 2015, the prevalence of long-term diseases or health problems showed an 18.7 percentage-point gap between the poorest (43.2%) and the richest (24.8%) income quintiles of society. As of 2022, this gap had shortened by 5 percentage points, while the occurrence of illness among the most underprivileged and privileged cohorts had increased by over 8% (8.2%) and 13% (13.6%), respectively (Annex E) (Eurostat, 2024). These figures serve as proof of an unfit strategy, marked by the absence of cross-sector collaboration, transparency, accountability, and political coherence, hindering Portugal's ability to tackle health inequalities effectively (Doetsch et al., 2025).

7. Why is the Social Gradient in Health something to worry about?

In the closing chapter of his book *The Status Syndrome (2005),* Michael Marmot, director of the UCL[18] Institute of Health Equity reflects on a rather unexpected scene. It all happened back in 1987, amidst the press launch of Margaret Whitehead's *The Health Divide*, a report that collected evidence of the health inequalities in Britain at the time. The event was about to start when everyone suddenly received the news that the launch could not take place at the Health Education Council (HEC), where they had gathered, while the director general of that same institution was forbidden to appear. By the next day, the newspapers' headline explained it all: «Government attempts cover-up of report that shows widening health gap!» (Marmot, 2005, p. 240). But why should health inequalities raise such a concern? The answer lies in the fact that this phenomenon defies the very concepts of social justice and fairness – as detailed in Chapter 3 –, as it exposes the «heart of the way we live as individuals and of how we organize our affairs as societies» (Marmot, 2005, p. 240). Put simply, health inequalities derive from the opportunity and autonomy gap between social groups, while, by contrast, fairness refers exactly to a state of equality in terms of opportunity across the society (Marmot, 2005; Rawls, 1999).

In fact, the consequences of health inequalities extend beyond the poorer health and well-being of those directly affected. Their impact is not confined to the individual sphere of the poor or to social justice affairs, as mentioned above; they can also influence national economic performance, from a macro perspective. On a micro level, though, there are personal and moral reasons to worry about this phenomenon. Let us go through each of them.

It is noteworthy that the essence of the social gradient in health is not to explain the opposite realities lived by contrasting socioeconomic status, but rather to shine a light on how slight differences in economic standing can impact one's health. That means that anyone below the higher-income classes is affected by it (Marmot, 2005). For EU member states, that includes the vast majority of the population, with only 7.5% on average belonging to the higher-income classes. The middle class, in turn, accounts for an average of 64% of the population in EU member states (Eurofound, 2024). This is the personal reason. For the moral reason, on the other hand, Marmot (2004) invokes a simple logic: if, considering the case of the *Titanic*, we

[18] University College London

think it is wrong that those in the 3rd class had a higher rate of death, why should we then be careless about the fact that people below us in the social hierarchy have higher rates of death, for all causes (Ministério da Saúde & Direção-Geral da Saúde, 2022)?

But it does not end here. Health has value; in other words, health is wealth, and it is also one of the three pillars of human development, along with education and income (Alleyne & Cohen, 2002). That explains why «countries with educated, healthy populations, are in a better position to prosper, especially in favourable policy environments» (Bloom & Canning, 2000, as cited in Alleyne & Cohen, 2002). Health is, therefore, a valuable capital asset, one capable of promoting economic growth. In fact, while illness and disability among the population are estimated to considerably reduce hourly wages and productivity, better health – physical and mental – on the contrary, increases productivity levels. This tendency is even more evident for children. The evidence establishes a strong correlation between children's and adults' health. Investments during pregnancy and early childhood have been shown to be determinant on better health, education, and income in adult life (Alleyne & Cohen, 2002). Accordingly, a recent study run in Cameroon and Kenya found a positive correlation between better health and the significant decrease in poverty among those at the bottom of the income distribution (Epo et al., 2023). The part health has to play in poverty becomes even more evident when considering the definition of poverty by Amartya Sen (1999) (as cited in Alleyne & Cohen, 2002) as:

> *A «capability deprivation» where a person lacks «substantive freedoms» he or she needs to lead the «kind of life he or she has reason to value» (Alleyne & Cohen, 2002).*

These arguments justify why the intervention on the social gradient in health in Portugal is not just an ethical urge, but also a national weakness that, if overcome, can reflect in actual returns. In fact, policies aimed at reducing poverty can promote economic growth, even if inequalities remain constant. At the same time, it is well known that the higher the poverty levels, the greater and more significant are the negative impacts of inequality on economic growth (Breunig & Majeed, 2020). The following and final chapter will then focus on a policy recommendation based on two actions that aim at alleviating the social gradient in health in Portugal, as a way of not only improving the social justice and economy of the country, but also of meeting the rights and duties established by the Portuguese law – see Subchapter 6.3.

8. PHC: A Hidden Gem

Typically, health challenges are addressed through biological and technological approaches. However, extensive research over many years has revealed that, apart from material well-being, the capacity for self-governance (autonomy) and the openings (opportunities) to partake in society fully are crucial for robust health and longevity. These two elements, in fact, are established as key contributors to health disparities. Such a finding should lead to redirecting attention towards people's living and working conditions (Marmot, 2005). To address this, the subsequent proposal endeavours to diminish the social gradient in health and halt cycles of poverty across generations through two strategic measures within the Portuguese SNS, at the PHC level – specifically in General Practice, where the patient's social and family circumstances are inseparable from their clinical care (Santos et al., 2013). Still, there is more to be considered.

8.1. The New Models of Health Care

National health systems today face growing challenges, including escalating health care costs driven by technological and clinical advances, an increase in chronic illnesses, and a shortage of health professionals, as outlined in Chapter 1. The urgent need for more streamlined systems that can make the most of limited resources has spurred the creation of innovative public health governance models, which are becoming progressively more accepted (European Commission: Directorate General for Health and Food Safety, 2019).

Despite the Portuguese SNS maintaining a conventional governance structure – defined by high centralization, bureaucratic processes, political influence, and an inward-looking perspective – evolving governance models have adopted opposing strategies. However, two of these have achieved widespread approval among OECD member state administrations and in academic discourse: the *New Public Management* (NPM) and the *Public Value Management* (PVM) models (C. Rodrigues, 2023).

Created in the 80s, the NPM is based on the premise of integrating private-sector management models into public management through three main principles. First, the decentralization of authority through its dispersion, encouraging managers to take more responsibility for the goals set. Second, the deregulation, through a higher autonomy of

managers in the allocation of resources with no major impediments from higher functional entities – applying to the health sector in Portugal, the Ministry of Health and its branches – further contributing to their accountability for the organizational results. And lastly, the delegation of command through the division between politics and management, with the government intervening through the setting of public policies, and the management being responsible for implementing them independently and delivering results. Another cornerstone of the NPM is maximizing production outputs and efficiency through the integration of performance-based rewards, measurable performance indicators, and discipline in the use of organizational resources. But these guidelines were largely criticized for going too far from the principles of the health public sector, which is fundamentally solidary (European Commission: Directorate General for Health and Food Safety, 2019; C. Rodrigues, 2023).

The lacuna left by the NPM was later fulfilled by the PVM, a public management model which recognizes that fundamental differences in the values shared between public and private services call for necessarily different approaches. Moreover, it emphasizes their duty to meet society's collective needs as the very core of their existence. In other words, the continuity of public services must be anchored in the delivery of Public Value, defined as the added value of public services as measured by the user-taxpayer, in exchange for the resources allocated (taxes). The PVM model, therefore, is founded on two principles: the production of outcomes (valuable social and economic impacts aligned with the priorities and preferences of citizens) and cost efficiency (C. Rodrigues, 2023). For the implementation of the PVM, one modernization movement inside this approach, the Value-Based Health Care (VBHC) model, introduced in 2006 by Michael Porter and Elizabeth Teisberg, sets out a strategy that combines outcomes, user satisfaction, and low costs (Porter & Lee, 2013; C. Rodrigues, 2023). Accordingly, this strategy is marked by six essential steps: the measurement and follow up of health outcomes and costs (to improve innovation, the quality of care, and efficiency, as well as the development of condition-based bundle payment models); focus on prevention and promotion of health; organize services according to health condition (overcome lack of integrated services, by gathering all the specialities involved in one condition can enhance health outcomes, and patient orientation through the system, decrease costs, and tackle burnout environments); implement bundle payments (payment for a complete package of services included throughout the treatment cycle, promoting efficiency); complete and long-term electronic registration of the patient’s clinical data; strengthened accountability of the patient for their health and treatment adherence (C. Rodrigues, 2023; Teisberg et al., 2020).

In conclusion, the VBHC model reflects a patient-centred approach with one focus: improving the population's health, which can only be achieved through the positive health outcomes of many. For that end, the shift from treatment to prevention and health promotion entails addressing patients' non-clinical needs – psychological and others – that may lead to poorer health outcomes (Teisberg et al., 2020).

8.2. PHC as a Pathway to Reducing the Social Gradient in Health

Although some critics dismissed it as a utopian strategy, the implementation of the VBHC model by care providers worldwide – through large-scale reforms – has demonstrated substantial improvements in outcomes, efficiency, and financial performance (Porter & Lee, 2013; Teisberg et al., 2020). In contrast, many initiatives implemented by managers and policymakers, such as combating fraud, reducing errors, enforcing practice guidelines, encouraging patients to be better consumers, and deploying electronic medical records, have not successfully addressed the current challenges faced by national health systems. The solution requires a fundamentally distinct strategy (Porter & Lee, 2013).

The trajectory of health care's future is deeply linked to the VBHC directives. Accordingly, by the year 2040, it is expected that prevention and early diagnosis will finally assume a central role. Strategic planning in the sector is also expected to prioritize patients over institutions, with the establishment of a holistic framework encompassing all aspects of mental, social, emotional, and physical wellness. Technology will play a decisive part. Always-on data and wearable devices are expected to be incorporated into medical routines, supported by AI-powered software, allowing for enhanced precision and real-time micro-interventions. The incorporation of these advancements is predicted to encourage new collaborations and players within the health care field. All these changes will promote «more precise, less complex, less invasive and cheaper» (Batra et al., 2019, p.1) interventions and treatments, capable of preventing illness and addressing critical clinical conditions. At the same time, forecasts indicate that the adoption of new technologies, coupled with the ability to detect and prevent disease in its early stages, and greater patient responsibility, will contribute to a shortage in health care spending (Gebreyes et al., 2021). In light of these points, the VBHC model should be seen not just as a theory but as a strategy aligned with the future of health care and a solution to its long-term sustainability.

PHC: A Step Ahead

Although frequently portrayed (erroneously) as being «less modern and of less value than specialist hospital care» (Rajan et al., 2024, p.21), and as inferior, PHC is, in reality, highly consistent with many fundamental concepts of VBHC and, consequently, with the forthcoming direction of health care. Indeed, PHC represents a pivotal component of strong and resilient health care systems, and is a cost-effective approach to meeting people's needs (Rajan et al., 2024).

In the words of Dr. Hans Kluge, WHO Regional Director for Europe, member states are being advised to «go 'back to the future'» (WHO, 2023a, p.1), through PHC, in order to achieve the fulfilment of the promise of health for all. Likewise, earlier this year, following its 78th Assembly, the WHO advised all member states to increase their investment in PHC, by 1% or more of the GDP as a means to work towards universal health coverage and a better future, with more health, equity, and positive changes in both society and economy. But not only. The WHO is calling for an urgent reinforcement of PHC, given the current global health financing crisis. Ongoing armed conflicts worldwide, combined with cuts in international aid budgets from key contributors – projected to result in a 40% reduction in external assistance in health by 2025 –, leave less room to address the rising health care costs, and call for solutions capable of «improving public financial management systems to generate the greatest positive impact on population health» (WHO, 2025b, p.1) (The Lancet Primary Care, 2025). In light of these challenges, a PHC approach was identified as the «fastest and most effective, equitable and inclusive» (WHO, 2024, p.2) way of achieving universal health coverage. But how?

The potential of PHC as a 'step ahead' for achieving the goal of equitable and sustainable health for all becomes clear when confronting its guidelines with those of a value-based care model. Similarly to these, PHC is based on an integrated and continuous care, the address of the broader determinants of health, and in increasing the patient's accountability by empowering «individuals, families and communities to take charge of their own health» (WHO, 2025a, p.1). Accordingly, reinforcing PHC contributes to better health outcomes while simultaneously supporting the financial sustainability of health systems.

Evidence shows that PHC improves population health, as the density of PHC physicians in a given area is positively associated with population health, and individuals followed by a PHC physician tend to be healthier (Starfield et al., 2005). As stated by the WHO (2024), strengthening PHC-oriented health care systems worldwide could save 60 million lives and

«increase global life expectancy by 3.7 years by 2030» (p. 2), as well as achieve 75% of the health gains linked to the Sustainable Development Goals. Access to PHC has also been shown to have substantial financial impacts, leading to fewer emergency department visits, hospitalizations, and health expenditures (Gao et al., 2022; The Lancet Primary Care, 2025). In turn, research based on data from the United States Veterans Health Administration (VHA) system found that the cost per patient per year reduced by $721, on average, for each additional in-person PHC visit. The return was even greater when considering the effects of the first PHC visit, which registered a $3976 annual saving per patient (on average). When considering the top 10% of high-risk patients (by severity of illness), this value reached $16,406 (Gao et al., 2022).

Beyond its resemblance to VBHC models in driving health care system cost-effectiveness, through improving health outcomes and reducing overall costs (Gao et al., 2022), PHC has also been found to promote a more equitable distribution of health among populations, both across and within nations (Starfield et al., 2005). These equity benefits set the stage for examining how PHC can help reduce the social gradient in health.

Can PHC mitigate the Social Gradient in Health?

PHC poses as a solution to health inequalities for two main reasons: enhancing universal health coverage and addressing the social determinants of health.

As developed previously, the very nature of PHC enables health systems that invest in it to guarantee the «access to high-quality, people-centred health services without financial hardship» (Rajan et al., 2024, p.xiii). In fact, evidence shows that strengthening PHC enhances access to essential health care services, medicines, and vaccines for all, thereby improving population health (Rai et al., 2024). These gains are further reinforced by PHC's holistic approach and its capacity to empower communities in health matters.

A twenty year (2000 to 2019) study ran in Latin America aiming to find the effect of high PHC coverage in a context of economic crisis, found that it led to a substantial decrease in the overall mortality rates of children bellow 5 years old, as well as in the mortality rates for the same age range from nutritional deficiencies, anaemia, vaccine-preventable and vaccine-sensitive conditions, and infectious gastroenteritis (Moncayo et al., 2024). Another example of how PHC can mitigate the effects of adverse economic conditions is given by reports on the effects of Community Health Centres (CHSs) implemented in the United States, by President

Lyndon Johnson, who in 1964 declared an 'unconditional war on poverty'. These centres were located in disadvantaged areas and offered primary care to «poor and underserved populations» (Bailey & Goodman-Bacon, 2015, p.1), as well as home visits and transportation to medical appointments, while charging patients on a 'pay as you can' model for services and medications provided – still, many of the prescribed drugs were free of charge or subsidized by the CHCs. Data from 1965 to 1974, revealed that this program led to a 7-13% drop in mortality rates among patients more than 50 years old, this being attributed to two main factors: the increase in 23% of poor adults reporting regular care visits among the recipient population (with regular care having a more significant impact in positive health outcomes than insurance coverage); the percentage of older poor supporting out-of-pocket expenditures on prescribed drugs fell by around 30%, in locations with CHCs (Bailey & Goodman-Bacon, 2015). However, the purpose of this measure exceeded its impact on health outcomes. It was drawn to prevent health inequalities from hindering the program's effectiveness as a whole, as poor health was accurately identified as a driver of persistent poverty:

> *The poor get sick more than anyone else in society. That is because they (...) have inadequate diets, and cannot get decent medical care. When they become sick, they are sick longer than any other group in the society. Because they are sick more often and longer than anyone else, they lose wages and work, and find it difficult to hold a steady job. And because of this, they cannot pay for good housing, for a nutritious diet, for doctors. At any given point in the circle, particularly when there is a major illness, their prospect is to move to an even lower level and to begin the cycle, round and round, toward even more suffering. (Harrington, 1962, as cited in Bailey & Goodman-Bacon, 2015, p.1).*

The War on Poverty successfully reduced poverty levels and improved overall well-being (Bailey, 2025), although the specific contribution of CHCs to this progress remains unclear. Nevertheless, a holistic approach to health can play a decisive role in addressing poverty by acting on the social determinants of health (Atun et al., 2025; Committee on Community-Based Solutions to Promote Health Equity in the United States et al., 2017).

Health inequalities stem from systematic disparities in the opportunities and autonomy enjoyed by groups and communities across social classes. In fact, they are majorly based on community-wide problems that include not only poverty but also «unemployment, poor education, inadequate housing, poor public transportation, exposure to violence, and neighbourhood deterioration (social and physical)» (Committee on Community-Based

Solutions to Promote Health Equity in the United States et al., 2017, p.32), with only some of people's individual choices and behaviours having an impact. While these determinants are complexly intertwined, community-based interventions on turning health equity into a shared value and vision, increasing community capacity to shape health outcomes, and creating multi-sectoral collaborations, can enhance equal health opportunities – the very foundation of health inequalities (Annex S) (Committee on Community-Based Solutions to Promote Health Equity in the United States et al., 2017). At the same time, by overcoming poor health in disadvantaged settings, it is possible to stop perpetual and intergenerational cycles of poverty and illness (Annex T) (Atun et al., 2025).

The following analysis will therefore focus on how PHC can intervene in five of the six policy objectives defined in the 2010 *Fair Society Healthy Lives: the Marmot Review* (as cited in Marmot et al., 2020), originally developed for Britain to address the social determinants of health and mitigate health inequalities – see Table 8.1 (refer to Appendix O for a more detailed analysis).

Table 8.1 How can PHC address the Social Gradient in Health

Priority Objectives from *The Marmot Review 2010*: Potential PHC Impact

Priority 1: Give every child the best start in life.
• General Practitioner with access to the biopsychosocial context of the patients (Santos et al., 2013). • In General Practice, when signs of familiar dysfunction emerge – such as excessive scheduled appointments by various family members with no organic disease, or behavioural and emotional problems, where the traditional biomedical model proves insufficient – a family assessment becomes mandatory (Santos et al., 2013). • The application of family assessment scales (**1**) and methods (e.g., family interview) allows for a detailed identification of problems and the development of an appropriate assistance plan to address family health dysfunction (Santos et al., 2013). • General Practitioner as manager and connector to appropriate community/social and medical resources (Santos et al., 2013).

Priority 2: Enable all children, young people, and adults to maximize their capabilities and have control over their lives.

- Access to PHC in early life, particularly during the prenatal phase and the first three years, «significantly increases children's completed years of education in later life» (Sun et al., 2025, p.1).

- Refer to Behaviour Therapy: Research on behaviour therapy has shown it to be efficient in decreasing inappropriate behaviour among autistic children, accompanied by an improvement in their IQ (Lovaas et al., 1973).

- Social Prescription: Health Education initiatives within the scope of PHC, intended to strengthen the ability of low-income parents in promoting their children's health, have shown limited effectiveness unless the wider socioeconomic determinants of health are simultaneously addressed (Williamson & Drummond, 2000).

Priorities 3 & 4: Ensure a healthy standard of living for all; Create and develop healthy and sustainable places and communities.

- Universal Health Coverage hinders the existing link between illness and poverty (O'Donnell, 2024).

- PHC promotes universal health coverage and lowers health inequalities, if successfully delivered, leading to healthier and safer societies and to the building of well-being economies (WHO Regional Office for Europe, 2023).

- Social determinants of health can be addressed through Social Prescription (Robalo, 2025).

- Guidelines for growing anxiety disorders in the context of non-specialized care have been set by the WHO, and include: reference to cognitive behavioural therapy, endorsement of stress management techniques, and the prescription of Serotonin Reuptake Inhibitor (WHO, 2023b).

Priority 5: Strengthen the role and impact of ill health prevention.
• PHC integrates care, prevention, promotion, and education of health (Van Weel & Kidd, 2018). • Strengthening PHC allows for the improvement of the population's health and access to care, while at the same time promoting the national health system's performance and lower health care expenditure (Van Weel & Kidd, 2018). • 20% of our health is defined by health care and 80% by social determinants: prevention must have a holistic approach (NHS Confederation, 2024) • Investing in aspects of the population's life, from living conditions to exercise initiatives, has been shown to have returns of £6.90 to £34.75 (per £1 spent) (NHS Confederation, 2024).

Notes:
(1) Smilkstein's Family APGAR (measures level of family disfunction); García González Family Risk Scale (measures family exposure to risk factors); Holmes-Rahe Stress Scale (measures family exposure to stress-induced illness); Graffar Social Classification (measures family socioeconomic status) (Santos et al., 2013).

Despite this, PHC is not protected from the outdated nature of its conventional approaches. The implementation of a «data-driven, people-centred, and proactive approach» (WHO Regional Office for Europe, 2023, p. 4) is also required to enhance their efforts. Social prescription represents progress in this regard, as it establishes a connection between health care services and community support, allowing medical practitioners to address the social, emotional, and practical needs of their patients (Robalo, 2025).

8.2.1. Can the attribution to a FHT hinder the Social Gradient in Health? – An Empirical Analysis

To provide further evidence on the social gradient in health in Portugal and the impact that PHC can have on it, a dataset from the Loures-Odivelas Local Health Unit (ULSLOD) was employed. It should be noted that this local health unit was deliberately selected for covering one of the poorest municipalities in the metropolitan region of Lisbon – Odivelas (Annex Q). The dataset mentioned was provided as part of a collaborative agreement established for the present research, with the primary objective of assessing whether the allocation to a FHT can,

in fact, reduce disease incidence among the most vulnerable, thereby hindering the social gradient in health. It includes the following information per patient:

- Exemption from co-payments for SNS's services, based on a declared situation of economic insufficiency[19] (yes or no);
- Attribution to FHT (yes or no);
- Number of clinical references per ICPC-2 code (integer).

Data Description

The mentioned sample was gathered through a simple random sampling method and generated from the informatics program used by the PHC units within ULSLOD. It is therefore organized in the codes established by the second edition of the International Classification of Primary Care (ICPC-2), widely used by PHC units across the country (C. Silva et al., 2024), containing all medical registrations for each included patient. This information was, thus, originally organized in its pristine form, with each row corresponding to each patient and each column indicating the number of registrations made by the health professional for the corresponding case. Each column indicated a specific process or relevant medical information about the patient, with each number, of each letter – or 'chapter' –, corresponding to a specific case, within a specific dimension of health (e.g., B04, B indicates it is an issue involving the patient's blood, 04 indicates that the patient presents signs of disease). Refer to Annex U for further details on the structure of the ICPC-2 chapters and components.

Based on these codes, the dataset was subsequently structured into two main variables: *'Symptom_Check'* and *'Diagnosis_Check'*. The *'Symptom_Check'* variable consolidates all symptom records across physical health dimensions, therefore excluding those classified under ICPC-2 chapters P, W and Z. This variable encompasses all codes ranging from 01 to 29 – designated as Component 1 in ICPC-2 – which denote symptoms of disease. Conversely, the *'Diagnosis_Check'* aggregates data from the same chapters but is distinguished by its inclusion of all codes from 70 to 99 – Component 7 – which correspond to confirmed disease diagnoses. This distinction aligns with ICPC-2 guidelines, which state that a condition is initially recorded

[19] In 2025, a household is considered to be in a situation of economic insufficiency if the total monthly income, divided by the number of household members responsible for it (e.g., the mother and father), is less than 783.75€ (ACSS, 2025).

as a symptom until diagnostic techniques confirm it, at which point it is reclassified as a disease (WONKA, 2011).

In turn, Chapter P was excluded from both variables, as it concerned psychological conditions, which were therefore analysed individually. Chapter W, which covers aspects related to pregnancy and family planning, was also discounted, given that it does not exclusively contain diseases *per se* – for example, Component 1 features birth control medication. Still, Component 7 of chapter W included data on childbirth, with or without complications, as well as on neonatal mortality. It is worth noting that, due to the absence of standard control variables – such as age and sex –, the observations concerning all patients with entries in Chapter X (which concerns the female reproductive system, and the breast) were used to identify the females within the overall sample. However, it was understood that, because the sample was not representative, the data did not show a significant link between social disparities and child mortality, as detailed in Subchapter 6.2.

Finally, Chapter Z was excluded for simplicity. This chapter concerns social issues, which, within the scope of the present study, were represented by co-payment exemptions used as a proxy for poverty. Moreover, the number of observations in this category was limited, preventing a statistically meaningful analysis.

To better understand the previous sections and the following analysis, refer to Appendix P. In the inferential analysis (Appendix Q), hypotheses were tested using p-values, with $p < 0.05$ indicating statistical significance, while standardized coefficients (β) were used to assess economic relevance and real impact.

Descriptive and Inferential Statistics

The analysis in Stata aimed to assess the correlation between the dependent variables shown in Appendix P and the selected independent variables – FHT (ESF) and Exemption (*Isenção*).

Starting by the analysis on physical health, the variable *Symptom_Check* showed a significant ($p = 0.000$) positive correlation ($\beta = 0.045$) between poverty – hereby measured by the exemption of co-payments – and disease symptoms, proving that more poverty leads to higher ill-health symptoms. This correlation was slightly hindered (by 0.002) by the attribution to a FHT, which was found to have a strong ($p = 0.000$) and negative ($\beta = -0.097$) effect on

Symptom_Check. For *Diagnosis_Check,* a sample of 20,796 patients living in poverty (Exemption = 1) – 4,448 not allocated to a FHT and 16,348 allocated – revealed that the incidence of disease was 2.75 percentage points higher among those without a FHT. Still, a statistically significant positive correlation was found between the two variables (p = 0.000; β = 0.0096). Poverty, in its turn, was found to have a significant (p = 0.000) and positive (β = 0.020) impact on the incidence of illness. A robust statistical correlation (p = 0.000) was also found linking exemption to no FHT assignment, with poverty inversely affecting the ability to obtain one (β = -0.021).

Regarding the data on pregnancy and family planning, the analysis found no statistically significant impact of poverty or of the attribution to a FHT on live births, with or without complications (variables W92 and W90, respectively). Still, the allocation to a FHT showed a statistically significant negative association (p = 0.000; β = - 0.012) with W82, indicating that being assigned to a FHT was associated with fewer miscarriages. Exemption was also found to have no significant impact (p = 0.902) on this variable (W82).

Turning to the incidence of psychological conditions, the statistical analysis found that the allocation to a FHT had no significant impact on the levels of depression (P03) (p = 0.005), nor drug abuse (P19) (p = 0.101). Conversely, exemption/poverty was found to have a statistically significant positive association with P19 (p = 0.001; β = 0.002), while showing no correlation with P03 (p = 0.128).

In addition to supporting the conclusions from Chapter 6, the results from this analysis confirm the positive impact of FHT attribution on disease symptoms and miscarriage, while also mitigating the influence of poverty on signs of illness, thereby supporting H_1 and the following policy recommendations.

8.2.2. Policy Recommendations

Recommendation 1: Add Socioeconomic Vulnerability as a Criterion for Double Prioritization in the Process of Allocation to a FHT

As aforementioned, the social gradient in health is fundamentally unjust and stands against the very foundations of the Portuguese SNS (Chapter 3 and Chapter 5). However, it is a growing reality in the country. The financial and staffing challenges that hinder the capacity for response

of national health systems (Anderson, 2023) are pushing Portuguese families into an asymmetrical and unfair effort in accessing health care, encouraging the very disparities SNS was meant to abolish, and making way for a flourishing private sector in the process (Fragata, 2022). About 30% of the Portuguese population has private health insurance, and from 2023 to 2024, the number of total appointments and emergency attendances in this sector increased by 10% and 3%, respectively (APHP, 2025). Those who cannot afford a private alternative are therefore lagging behind, with one of the few clear measures directly influencing more equitable access being the SNS co-payment exemption, available only to eligible patients who request it. Besides the risk of not covering all those in need, for lack of knowledge or even out of shame (Clérigo, 2023), this measure has been proven insufficient. Studies show that other care-related expenses (such as transportation) are keeping the most vulnerable from accessing health care, even in the case of illness (Pita Barros & García-Ramírez, 2025), and are also preventing them from addressing prevention. It is still worth noting that such a measure is subject to cases of fiscal corruption (Diário de Notícias, 2017).

In the light of the Portuguese Law, it is established that equity, as a fundamental part of health policies, can be achieved through positive discrimination among the most vulnerable (Health Bases Law, Base nº 4, al. d)). In line with this, and with the main goal of promoting the achievement of equality of opportunity in health and throughout life, the present study proposes the inclusion of a new prioritization criterion in Decree n.º 1668/2023: socioeconomic vulnerability. This condition is proposed to be included as an additional criterion for prioritizing patients in the process of allocation to a FHT, not in its own, but as an aggravator of a priority status already entitled by the established priority groups: households with patients having multimorbidity, chronic disease, children under 2 years old, or pregnant patients. This way, those in priority groups who face socioeconomic hardships would face a double prioritization. Let us take an example. In the hypothetical case of two pregnant patients competing for a single vacancy, the one registered as socioeconomically vulnerable would get the spot.

Additionally, to mitigate the risk of fiscal corruption, it is suggested that Social Security services notify of the condition of socioeconomic hardship through a holistic approach involving both institutions/ministries. It is also crucial to note that, as developed in chapter 6.2.2, immigrants, who constitute a growing vulnerable group in Portugal, are more prone to move residency within the main cities, which would therefore mean the underutilization of a hypothetical vacancy attributed to the previous local health centres. Also, by the same logic, the human resource limitations in health care call for a more mindful allocation that takes into

account the patients' long-term intentions to remain in the country. Thus, the author understands that, to benefit from the proposed priority aggravator associated with socioeconomic status, immigrants – like any other Portuguese – should already possess Portuguese nationality.

Recommendation 2: Creation of Community-based Intervention Teams within PHC

Based again on the socioeconomic factors that affect the health of the most vulnerable communities, as well as their access to health care and health outcomes, it is understood that these communities would benefit from the intervention of multidisciplinary teams, focused primarily on continuous and preventive care, dedicated to the process of knowing and best addressing the needs of each community.

Both policy proposals above are supported by the Brazilian Family Health Strategy (FHS), the main PHC model and equity policy of the Brazilian national health system – Sistema Único de Saúde (SUS) (Hone et al., 2020). Studies show that Family Health clinics in Brazil focus on the most vulnerable populations, with enrolment associated with greater access to a usual source of care (Giovanella et al., 2021) and more frequent home visits (Malta et al., 2016). The presence of PHC in these contexts has, thus, been shown to reduce mortality risk among vulnerable groups (Hone et al., 2020). It should be noted that such proposals do not simply align with the legal and moral foundations of the Portuguese SNS but are also able to fulfil an important gap in the strategy of the institution. In fact, whilst hindering the social inequalities in health has been defined as a strategic point, no clear actions to achieve that goal have been presented by the National Health Plan (Lusa, 2022).

The solutions proposed are not expected to reverse the social gradient in Health in Portugal completely, but instead aim at contributing to the fulfilment of the very foundations that founded the SNS – a project that was primarily created to, precisely, close the deep gap in health that the democracy found after the fall of the *Estado Novo* regime, in 1974 (Chapter 5). There is no doubt about the civil advancements enabled by the national health system; still, times have changed, and the SNS has retained a structure and governance model that are no longer fit for the challenges of the present (C. Rodrigues, 2023). Change is crucial, and answers are needed. The recommendations above aimed to contribute to both. Prioritizing the most vulnerable in the allocation to a FHT and directly intervening through the PHC in the most vulnerable landscapes of the country would not only be in line with the ethical essence of the national health system but would also contribute to its long-term economic sustainability.

Of course, that, and as made clear throughout the previous chapters, an approach in health would not be enough to invert the social gradient in health, as this phenomenon is fundamentally linked to poverty. Poverty, in its turn, can be overcome. As Professor Dr. Carlos Farinha stated in the documentary *Pobreza Zero – O Futuro a Construir* (Clérigo, 2023), poverty can be overcome if there is political will to do so. Health can play a part in reversing this reality; still, other vital areas – such as education – are crucial for a turning point (Appendix R). In fact, ill health is not merely a consequence of poverty but can also lead to it. An example of how it can do so occurred in 1812, during the French invasion of Russia. The story goes that, caught by a cold, Napoleon's judgment was impaired, leaving the French army at a strategic disadvantage and leading to its defeat (Marmot, 2005). The key takeaway is that health can change the course of history and, equally, shift the course of a life and a country. Also, this story has a culprit. It is said that had Napoleon's valet not forgotten to pack his master's waterproof boots a few days before the battle, the narrative might have been different. Yet, we struggle to examine the causes of illness. Often, the data shows which diseases led to specific conditions, rather than the causes that led to illness in the first place (Marmot, 2005). The social gradient in health cannot be overcome if this approach is kept. In Portugal, as described in Chapter 6, if social transfers were not allocated, about 42% of the resident population (2023) would be living at risk of poverty. With these contributions, this rate falls to 16.7%. In 2024, 11% faced material and social deprivation. These conditions were linked to more intense weekly work, greater exposure to hazardous work environments, social exclusion, hardship, and lower levels of education. While the narrative review of this study uncovered a link between these contexts and ill health, the only clear empirical evidence available in Portugal on this relationship concerned poverty and access to health care. In contrast, in Brazil, the evolution of key health indicators (e.g., mortality rate) in low-income regions was analysed between different time scopes. In the UK, the Institute for Health Equity is dedicated exclusively to the study of this phenomenon and has designated a series of relevant indicators[20], which were monitored over 10 years.

Health inequalities represent a serious shortfall not only in individual and national outcomes but also in national justice, impacting not only poorer groups but the entire populace. Indeed, a society's commitment to its members' well-being is reflected in its health, which is directly tied to national economic and social progress (Marmot, 2005; Rawls, 1999). Addressing the social gradient in health would therefore help establish a more just societal structure.

[20] Access here: https://www.instituteofhealthequity.org/file-manager/FSHLrelateddocs/fair-society-healthy-lives-framework-of-indicators.pdf

9. Limitations and Recommendations

Limitations and Future Work

Throughout the present study, it was made clear that the literature and knowledge about poverty in Portugal are limited. As highlighted by Dr. Fernando Diogo four years ago, «the problem is complex, the number of researchers working on it systematically is small, and statistics and studies are few and relatively recent» (Diogo, 2021, p.1). Accordingly, the author felt that, although recent studies contribute to the current state of the art on poverty and health inequalities in the country, the complexity of the subject would benefit from more intensive research. Because of this lacuna, much of the literature accessed focused on contexts external to Portugal. Given the complex nature of the social gradient in health and of poverty, it would also be beneficial for future research on either theme to aggregate the knowledge, contributions, and involvement of those most dedicated to the study of these phenomena or whose experience can be a valuable contribution to its conclusions. Regarding this observation, it is noteworthy that of the 25 contacts made for the present study, only 6 responded. Regarding the data used for this research, some important limitations cannot be ignored: the dataset lacked control variables, such as age, sex, place of residence, and patient nationality, which were crucial for a more detailed, robust, and representative analysis. Another gap was the fact that the dataset did not indicate the frequency or continuity of the visits to FHT of those to whom it was attributed, further hindering the representativeness of the sample, as the allocation to a FHT *per se* does not mean that the patients in the cohort are active users of the PHC services. Additionally, the dataset was collected via random sampling at a single point in time, further limiting its representativeness. Given the time and resources, the best approach would be non-random, intentional sampling that follows patients over the long term and accounts for the evolution of their health status and economic situation.

Recommendations for Policy Makers and Academics

To further enrich and sustain future research on health inequalities in Portugal, incorporating the perspectives of individuals experiencing socioeconomic vulnerability, as well as those who are not, would offer valuable insight into this reality. Furthermore, a survey assessing public views on the fairness and applicability of the present proposals is relevant if their advantages are found to be promising.

10. Conclusion

As established in the opening chapters, the present research addressed the social gradient in health as a persistent feature of the Portuguese reality and a challenge for the national health system, while underscoring the role of PHC as an effective and modern solution.

The main findings of the study can be put in four brief points. First, the social gradient in health is a major problem in Portugal. Second, it is closely linked to broader social determinants of health, stemming from the lifelong conditions in which people are born, live, work, and age. Third, a holistic approach that encompasses how people live from childhood onward is key to addressing health disparities. This last idea leads us to the final and most disruptive point of this research: that PHC, as a dimension of health that cannot be dissociated from the biopsychological model of the patient and their family situation, represents a potential solution for reducing health disparities in the country. Not only are these professionals – namely the General Practitioners or the FHT – capable of addressing the social determinants of health relevant to patients' health status, but they also play a pivotal role in ensuring enhanced access to health services, as they are the 'entrance door' to the national health system. This statement is supported by the fact that PHC played a crucial role in Lyndon Johnson's War on Poverty as a major strategy to address people's opportunities and autonomy. Also, in Brazil, the strong presence of PHC among the most vulnerable has been key to reducing the mortality rates among this demographic, while, in Portugal, official reports – namely the *Plano Nacional de Saúde 2021-2030* - highlight the fact that the poorest population shows higher mortality rates for all causes.

These conclusions were further supported by the data analysis of the present research. The poor were found to be sicker and have less access to care, both curative and preventive (PHC). The exemption of co-payments in the SNS, hereby interpreted as poverty, was associated with more symptoms and diagnosis of physical disease, as well as risk behaviours, such as drug abuse. And, finally, the attribution to a FHT was proven essential for lowering symptoms of disease as well as miscarriages, with recent figures showing that child and neonatal deaths in Greater Lisbon are higher among its poorest municipalities.

Although challenging, the recommendations proposed aim to strengthen the equality policies of the Portuguese SNS, which remains a vital cornerstone of the Portuguese democracy. As a wise person once remarked, a revolution cannot be accomplished in one day.

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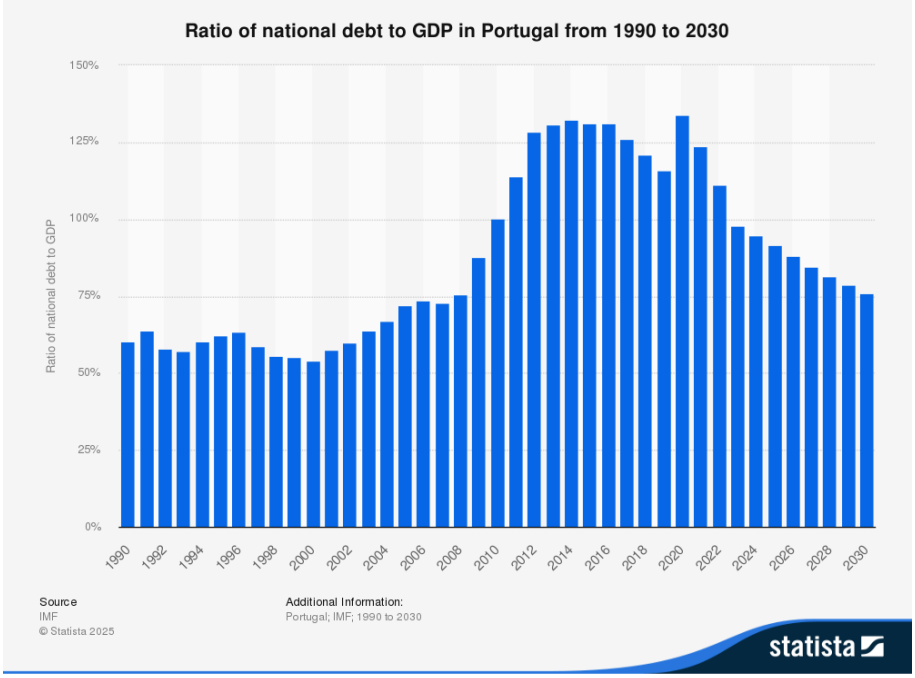
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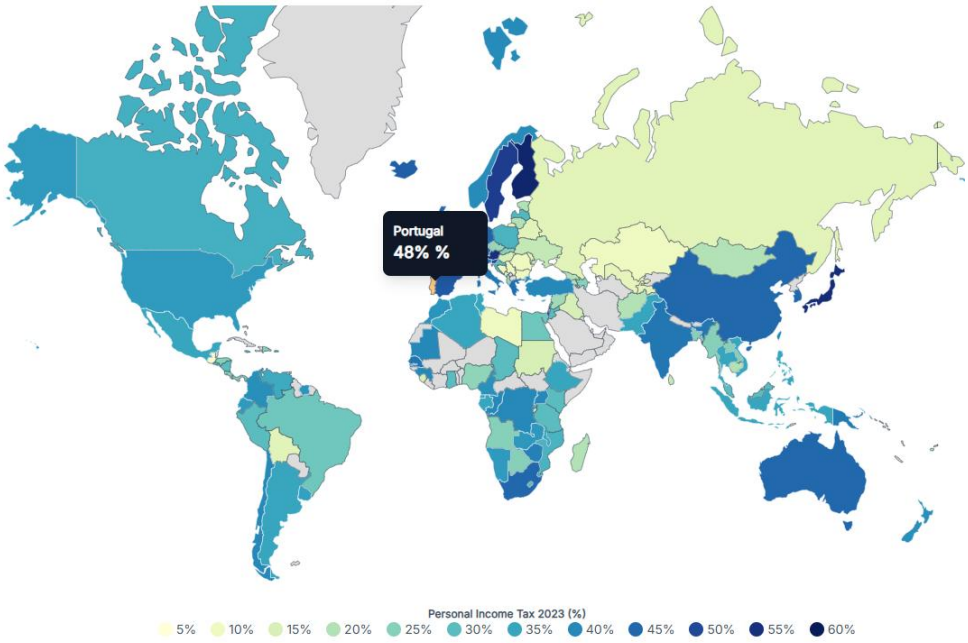
Annexes

ANNEX A | Ratio of national debt to GDP in Portugal (1990 to 2030)



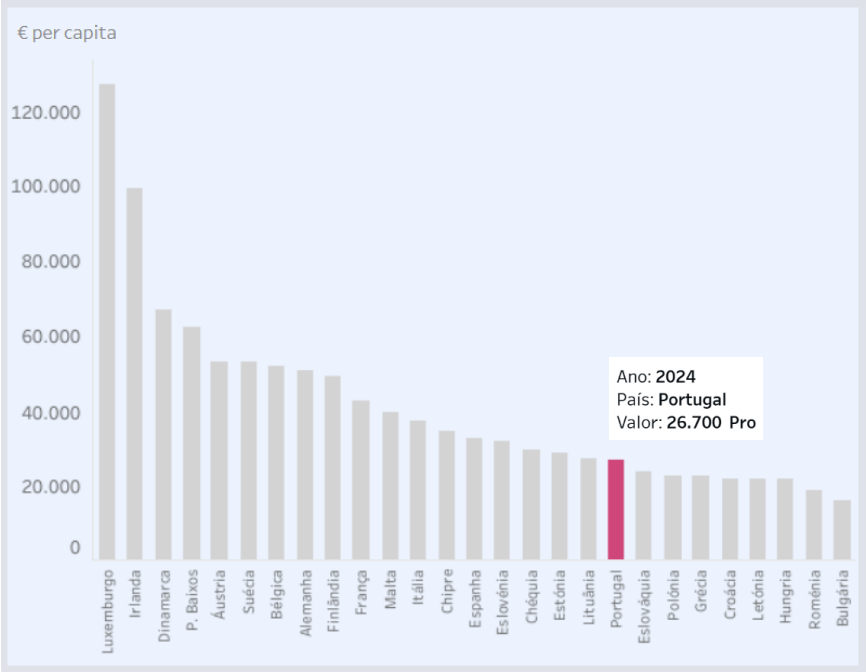
Source: Statista, 2025

ANNEX B | Highest Taxed Countries Worldwide (2025)



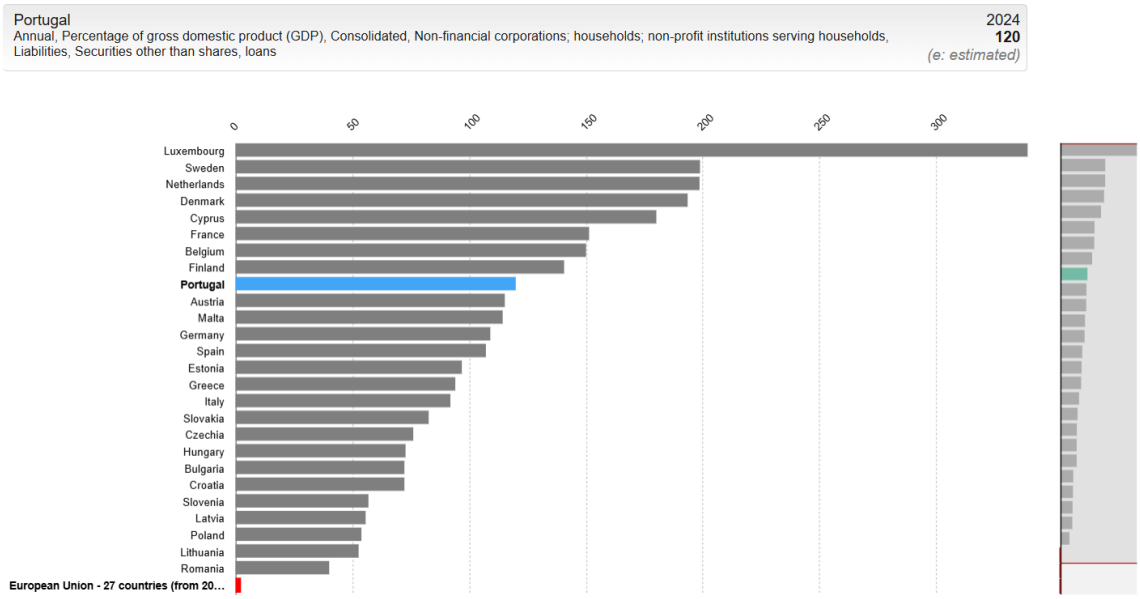
Source: World Population Review, 2025

ANNEX C | GDP per Capita in UE-27 (2024)



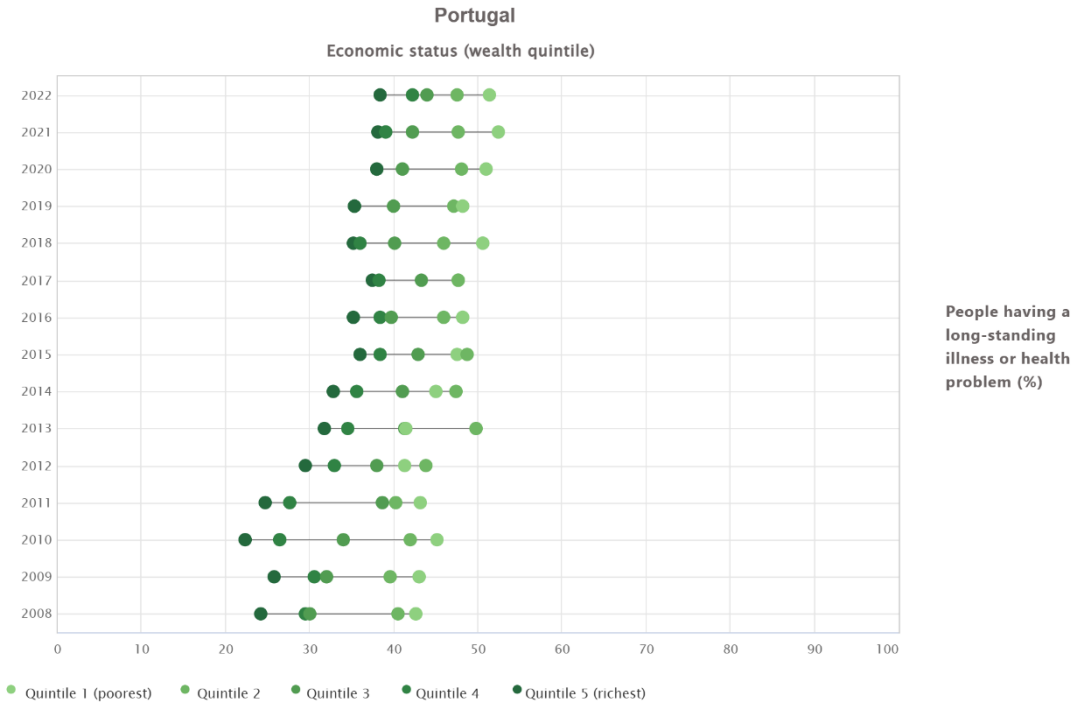
Source: Pordata, 2025

ANNEX D | Private sector debt, consolidated - % of GDP (2024)



Source: Eurostat, 2025

ANNEX E | Health Inequalities between Economic Status Groups, in Portugal (2008 to 2022)



Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries and territories. Built-in database edition. Version 6.0. Geneva, World Health Organization, 2024.

The data used in this version were drawn from the WHO Health Inequality Monitor data repository (2024 update) which may have been revised or updated since that time. The most recent version of that database is available on the WHO website (https://www.who.int/data/inequality-monitor/data).

Please note that these data are from external published sources and are therefore not WHO official estimates. Please refer to the Indicator Metadata in the About menu for more information.

Source: Eurostat, 2024

ANNEX F | Data on the Cost of Health Inequalities, in England (2011/2012)

Table 1 Number and rate of hospital episodes by admission type

IMD quintile	Elective		Emergency		All	
	Total	Rate*	Total	Rate*	Total	Rate*
Q1 (most deprived)	2 481 014	23 727	2 055 481	19 658	4 536 495	43 385
Q2	2 355 297	22 338	1 706 833	16 188	4 062 130	38 526
Q3	2 310 208	21 811	1 546 013	14 596	3 856 220	36 408
Q4	2 235 779	21 254	1 390 347	13 217	3 626 126	34 472
Q5 (most affluent)	2 095 137	19 804	1 216 063	11 495	3 311 200	31 298
Overall	11 477 435	21 783	7 914 736	15 021	19 392 171	36 804

This table shows the total numbers and rates of hospital episodes split by type of hospital admission and deprivation group. All data are based on hospital episode statistics for year 2011/2012.
*Rate per 100 000 population.
IMD, index of multiple deprivation.

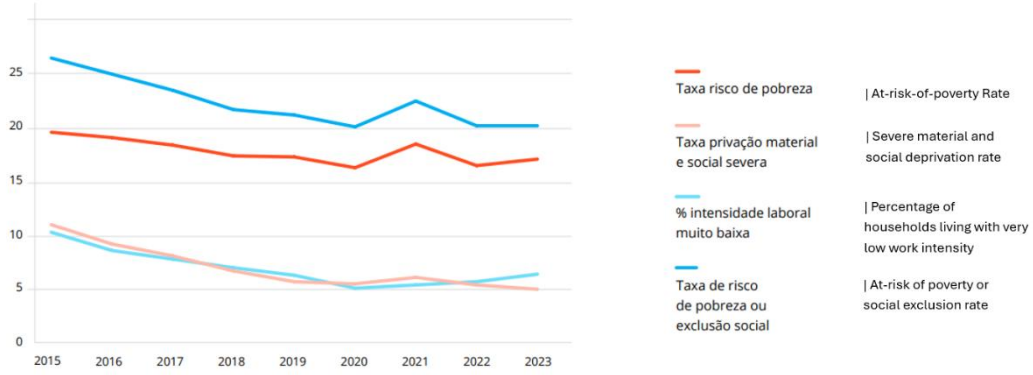
Table 2 Estimated cost of social inequality

IMD quintile	Female (£)	Male (£)	Total (£)
Q1 (most deprived)	1 127 006 663	1 065 236 932	2 192 243 595
Q2	706 629 004	671 287 893	1 377 916 897
Q3	410 841 645	405 654 922	816 496 567
Q4	198 794 943	19 012 169 9	388 916 642
Q5 (most affluent)*	–	–	–
Overall	2 443 272 255	2 332 301 446	4 775 573 701

This table shows the difference in inpatient hospital costs between those in the most affluent group and each of the other deprivation groups assuming everybody in the other groups would have the same average hospital costs as those in the most affluent groups adjusted for the different demographic profiles of the groups. All data are based on hospital episode statistics for year 2011/2012.
*Comparator group—costs in this group are £2 608 800 295, £2 208 982 887 and £4 817 783 181 for women, men and total, respectively.
IMD, index of multiple deprivation.

Source: Asaria et al, 2016

ANNEX G | Evolution of poverty and social exclusion in Portugal



Source: Peralta et al, 2025

ANNEX H | Criteria for the confirmation of severe or not severe material and social deprivation

At the Aggregate Level

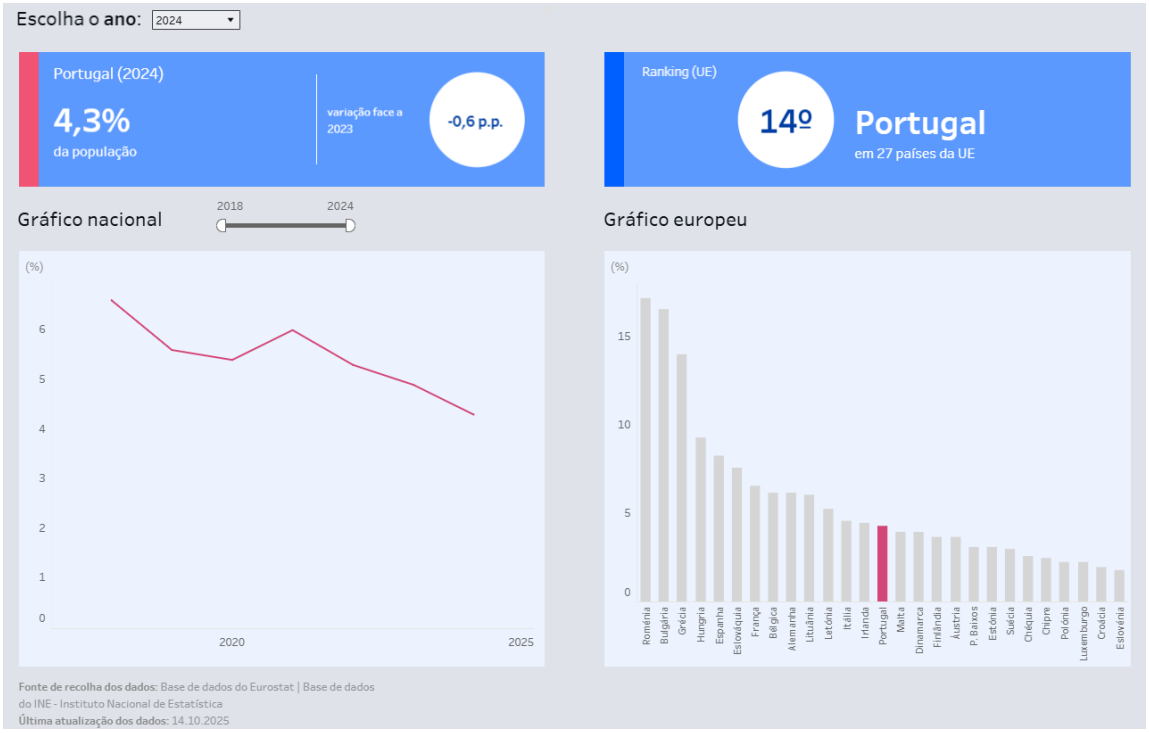
1. Ability to pay for an annual week of vacation away from home;
2. Ability to guarantee immediate payment of an expense without resorting to a loan;
3. Capacity of the household to keep the house adequately heated;
4. Delay in mortgage payments or rent payments, utility bills, installment purchases, or other loans;
5. Access to a car;
6. Ability to have a meal that includes meat, fish (or a vegetarian equivalent) every 2 days;
7. Ability to replace worn-out furniture;

At the Individual Level

8. Ability to replace worn-out clothes with some new ones;
9. Ability to have two pairs of properly fitting shoes
10. Ability to meet with friends or family at least once a month;
11. Ability to regularly participate in a leisure activity;
12. Ability to allocate a weekly amount of money for personal expenses;
13. Ability to have a personal internet connection at home for private use.

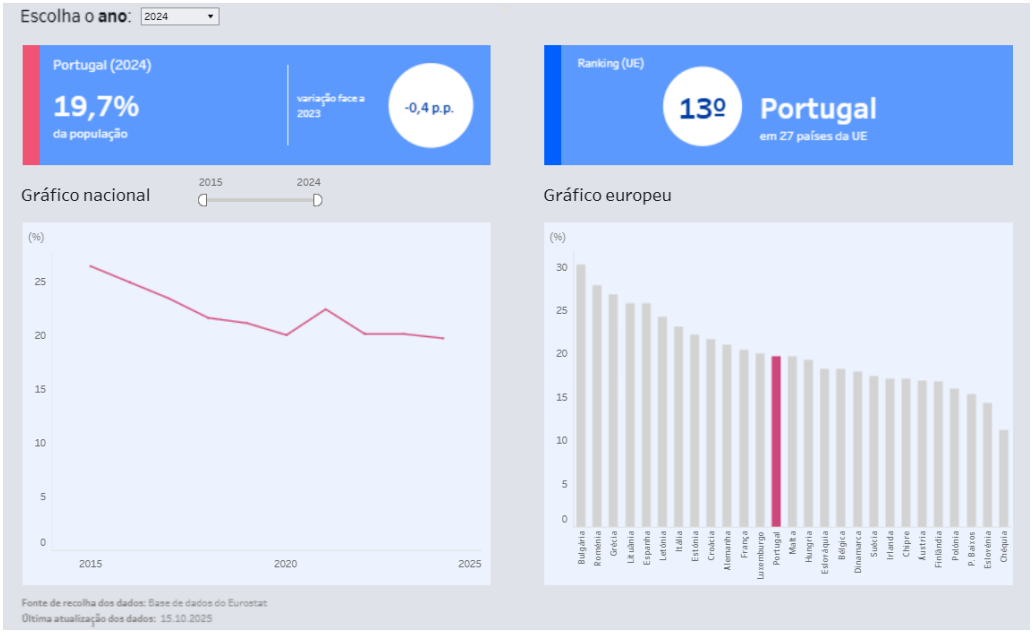
Source: Adapted from Peralta et al., 2025

<u>ANNEX I</u> | Rate of Severe Material and Social Deprivation in Portugal (2024), with EU27 comparison and evolution since 2019



Source: Pordata, 2025f

<u>ANNEX J</u> | At-risk-of- Poverty or Social Exclusion Rate



Source: Pordata, 2025d

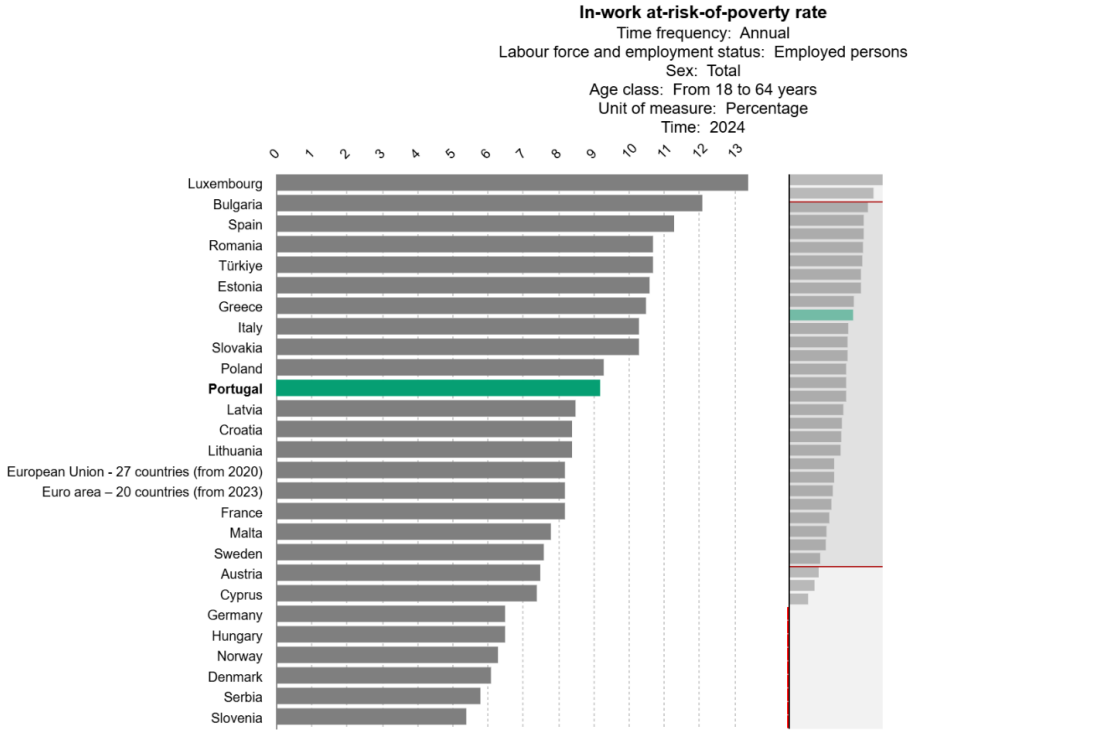
ANNEX K | At-Risk-of-Poverty Rate according to the working situation (in %)

	2008	2022	2023	2024
CONDIÇÃO PERANTE O TRABALHO				
A trabalhar	11,8	10,8	10,0	9,2
Desempregado	34,6	41,3	46,7	44,3
Reformado ou com reforma antecipada	20,1	14,9	15,4	19,6
Outra pessoa inativa	28,3	26,7	31,2	30,4
TIPO DE CONTRATO				
Trabalho temporário	21,1	20,6	18,2	-
Trabalho permanente	11,1	7,4	7,0	-
INTENSIDADE LABORAL				
Muito alta	11,7	6,7	6,7	-
Alta	16,4	17,4	16,0	-
Média	42,0	32,4	33,5	-
Baixa	32,2	44,3	50,3	-
Muito baixa	45,4	62,0	73,2	-
SETOR DE ATIVIDADE ECONÓMICA				
Agricultura, produção animal, caça, floresta e pesca	34,6	24,2	22,3	-
Indústria, eletricidade, gás e água	8,9	10,4	8,7	-
Construção	18,3	21,8	20,9	-
Comércio e reparação de veículos	13,0	11,9	10,6	-
Alojamento, restauração e similares	15,0	20,3	22,8	-
Educação	3,3	4,5	5,8	-

1. Fonte: ICOR, 2008, 2022, 2023 e 2024.
2. A classificação das atividades económicas corresponde à CAE-Rev.3: (i) Agricultura, produção animal, caça, floresta e pesca; (ii) Indústrias extrativas; indústrias transformadoras; (iii) Eletricidade, gás, vapor, água quente e fria e ar frio; captação, tratamento e distribuição de água; saneamento, gestão de resíduos e despoluição; (iv) Comércio por grosso e retalho, reparação de veículos automóveis e motociclos; (v) Alojamento, restauração e similares; (vi) Educação.
3. Indicadores ao nível do indivíduo: condição perante o trabalho, tipo de contrato e setor de atividade económica.
4. Indicadores ao nível do agregado: intensidade laboral.
5. Em 2021, há uma quebra de série relativamente ao cálculo da intensidade laboral, dado que o Eurostat mudou a definição desta variável de acordo com o plano Europa 2030.
6. Interpretação: No inquérito de 2024, entre as pessoas que se encontravam empregadas, 9,2% viviam com um rendimento equivalente abaixo do limiar de pobreza.

Source: Peralta et al., 2025

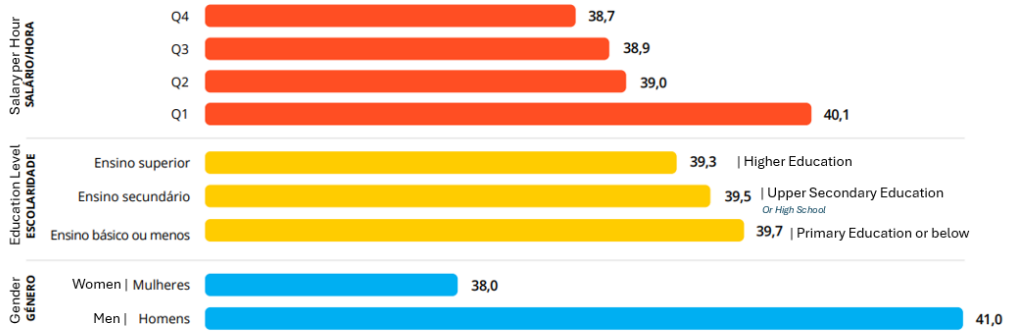
ANNEX L | In-work At-Risk-of-Poverty Rate, EU27 (2024)



In-work at-risk-of-poverty rate [tespm070]
Source of data: Eurostat - Last updated date: 27/01/2025 22:00
Disclaimer This graph has been created automatically by ESTAT/EC software according to external user specifications for which ESTAT/E
General disclaimer of the EC website: https://ec.europa.eu/info/legal-notice_en

Source: Eurostat, 2025a

ANNEX M | Hours Worked per Week in 2024

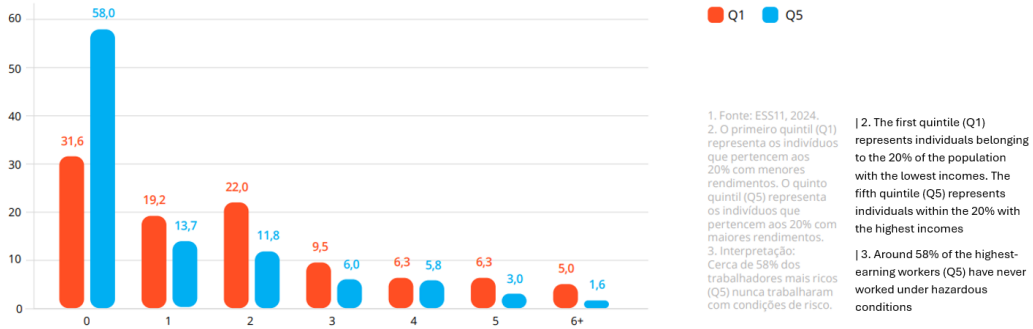


1. Fonte: IE, 2024
2. Por "horas trabalhadas" consideram-se as horas habituais, numa semana normal.
3. Interpretação: No quarto trimestre de 2024, as mulheres trabalhavam em média 38 horas por semana.

| 1. Source: IE, 2024
| 2. 'Hours worked' refers to the usual number of hours in a regular week.
| 3. Interpretation: In the fourth quarter of 2024, women worked an average of 38 hours per week.

Source: Peralta et al., 2025

ANNEX N | Exposure to hazardous conditions at work, in 2024 (in %, per quintile)



1. Fonte: ESS11, 2024.
2. O primeiro quintil (Q1) representa os indivíduos que pertencem aos 20% com menores rendimentos. O quinto quintil (Q5) representa os indivíduos que pertencem aos 20% com maiores rendimentos.
3. Interpretação: Cerca de 58% dos trabalhadores mais ricos (Q5) nunca trabalharam com condições de risco.

| 2. The first quintile (Q1) represents individuals belonging to the 20% of the population with the lowest incomes. The fifth quintile (Q5) represents individuals within the 20% with the highest incomes

| 3. Around 58% of the highest-earning workers (Q5) have never worked under hazardous conditions

Source: Peralta et al., 2025

ANNEX O | Daily Hardships between the Poor and the Non-Poor (Portugal, 2024)

	POPULAÇÃO POBRE	POPULAÇÃO NÃO POBRE
DIFICULDADE EM		
Ver, mesmo usando óculos ou lentes	29,0	18,9
Ouvir, mesmo usando aparelho	14,7	12,0
Caminhar ou subir escadas	14,9	8,2
Memória ou concentração	24,0	17,3
Cuidados pessoais	9,0	5,8
Comunicar	3,0	1,5

	POPULAÇÃO POBRE	POPULAÇÃO NÃO POBRE
Raramente ou nunca se sentiu feliz	15,8	7,7
Pouca satisfação com a situação financeira	37,0	16,9
Pouca satisfação com a ocupação do tempo (tempo dedicado ao lazer)	16,1	13,9
Pouca satisfação com as relações pessoais	5,4	1,7

	POPULAÇÃO POBRE	POPULAÇÃO NÃO POBRE
Sentiu-se só e isolado	12,9	6,2
Sentiu-se excluído	8,3	3,3
Não participação em atividades lúdicas	5,8	1,9
Poucos encontros com familiares	11,4	8,7
Poucos encontros com amigos	14,8	10,3

Source: Peralta et al., 2024

ANNEX P | Habitational Deprivation in Portugal (in %)

	POPULAÇÃO POBRE			POPULAÇÃO NÃO POBRE		
	2008	2022	2023	2008	2022	2023
CARACTERÍSTICAS DA HABITAÇÃO						
Telhado, paredes, janelas e chão permeáveis a água ou apodrecidos	27,2	37,5	38,5	17,7	20,7	27,0
Sem instalações de banho ou duche no interior	-	1,5	1,1	-	0,4	0,3
Taxa de sobrelotação do alojamento	-	20,5	27,7	-	7,2	9,8
Insatisfação em geral com o alojamento	-	-	11,1	-	-	4,4
CARACTERÍSTICAS DA ZONA						
Vizinhança barulhenta ou ruídos exteriores (comércio, trânsito, indústrias)	-	-	34,0	-	-	27,6
Poluição, sujidade ou outros problemas ambientais causados pelo trânsito ou indústria	-	-	18,0	-	-	14,7
Crime, violência ou vandalismo na área de residência	-	-	7,3	-	-	6,8
FATORES FINANCEIROS						
Custos do alojamento considerado um encargo muito pesado	49,7	38,8	37,6	32,8	21,0	24,0
Incapacidade de manter o alojamento confortavelmente frio durante o verão	-	-	50,1	-	-	35,8
Dificuldades no arrendamento	-	-	12,8	-	-	6,5

1. Fonte: ICOR, 2008, 2022 e 2023.
2. Em 2023, uma pessoa faz parte da "população pobre" de acordo com os rendimentos de 2022; as dimensões de privação habitacional referem-se à situação do ano de 2023.
3. As estatísticas são apresentadas para os anos em que estão disponíveis no inquérito. As perguntas que só têm valores em 2023 correspondem a um módulo específico do ICOR 2023.
4. Interpretação: Considerando a população não pobre, 35,8% das famílias portuguesas não tinham a capacidade financeira para manter o alojamento confortavelmente frio durante o verão em 2023; quando consideramos a população pobre, esta percentagem aumenta para 50,1%.

Source: Peralta et al., 2025

ANNEX Q | Median gross declared income per taxpayer, after personal income tax, within Greater Lisbon (in €, per municipality)

Localização geográfica (NUTS - 2024)	Valor mediano do rendimento bruto declarado deduzido do IRS liquidado por sujeito passivo (€) por Localização geográfica (NUTS - 2024); Anual (1) Período de referência dos dados 2023 €
Portugal	11 446
Continente	11 435
Grande Lisboa	12 943
Amadora	11 755
Cascais	13 406
Lisboa	14 282
Loures	12 125
Mafra	12 707
Odivelas	11 972
Oeiras	15 862
Sintra	12 081
Vila Franca de Xira	12 958
Região Autónoma dos Açores	11 660
Região Autónoma da Madeira	11 715

Valor mediano do rendimento bruto declarado deduzido do IRS liquidado por sujeito passivo (€) por Localização geográfica (NUTS - 2024); Anual - INE, Estatísticas do Rendimento ao nível local com base na informação produzida pelo Ministério das Finanças - Autoridade Tributária e Aduaneira.

Nota(s):

(1) A informação exclui os agregados fiscais com rendimento bruto declarado deduzido do IRS liquidado menor que zero.

Última atualização destes dados: 25 de julho de 2025

Source: INE, 2024

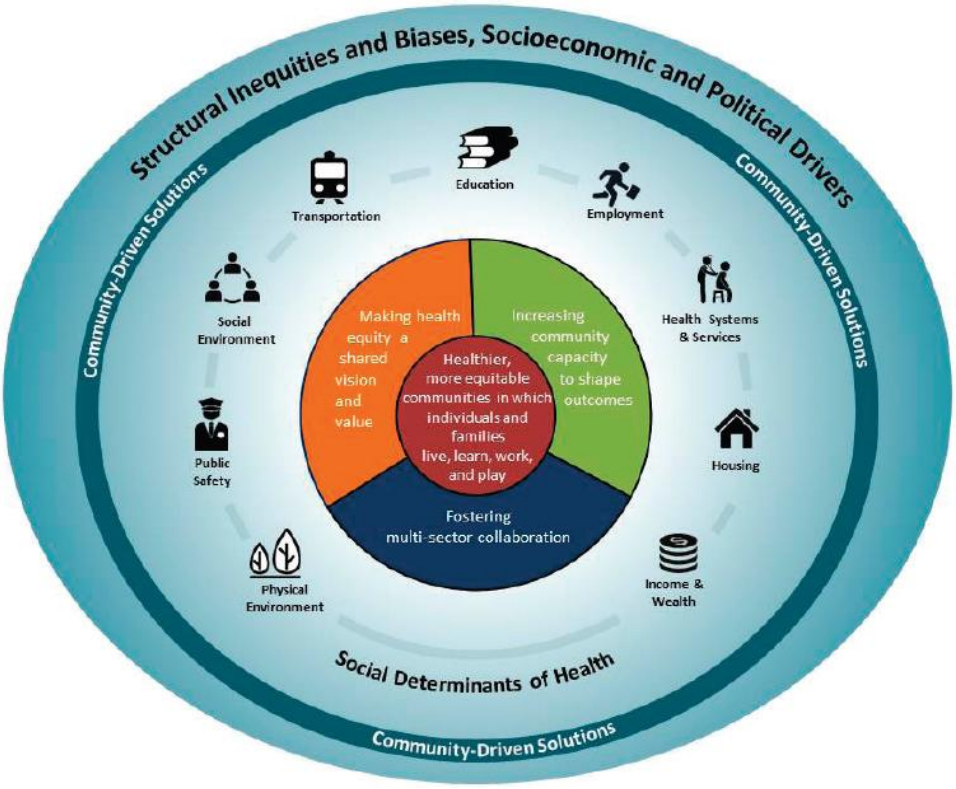
ANNEX R | Years of Life-Expectancy at birth, per region (Portugal, 2020 – 2023)

Região (NUTS 2024)	2020-2022			2021-2023		
	Total	Homens	Mulheres	Total	Homens	Mulheres
Portugal	**80,96**	**78,05**	**83,52**	**81,17**	**78,37**	**83,67**
Continente	**81,07**	**78,21**	**83,71**	**81,31**	**78,55**	**83,79**
Norte	81,53	78,74	84,02	81,82	79,16	84,16
Centro	81,44	78,58	84,07	81,57	78,81	84,12
Oeste e Vale do Tejo	80,56	77,93	82,93	80,77	78,22	83,11
Grande Lisboa	80,85	77,81	83,50	81,15	78,24	83,67
Península de Setúbal	80,25	77,52	82,63	80,54	77,81	82,90
Alentejo	79,88	76,94	82,74	80,12	76,96	83,06
Algarve	79,99	76,56	82,86	80,21	77,01	83,06
Região Autónoma dos Açores	**78,04**	**74,43**	**81,37**	**78,19**	**74,59**	**81,44**
Região Autónoma da Madeira	**78,77**	**75,05**	**81,63**	**79,07**	**75,44**	**81,92**

Fonte: INE, Tábuas de Mortalidade.

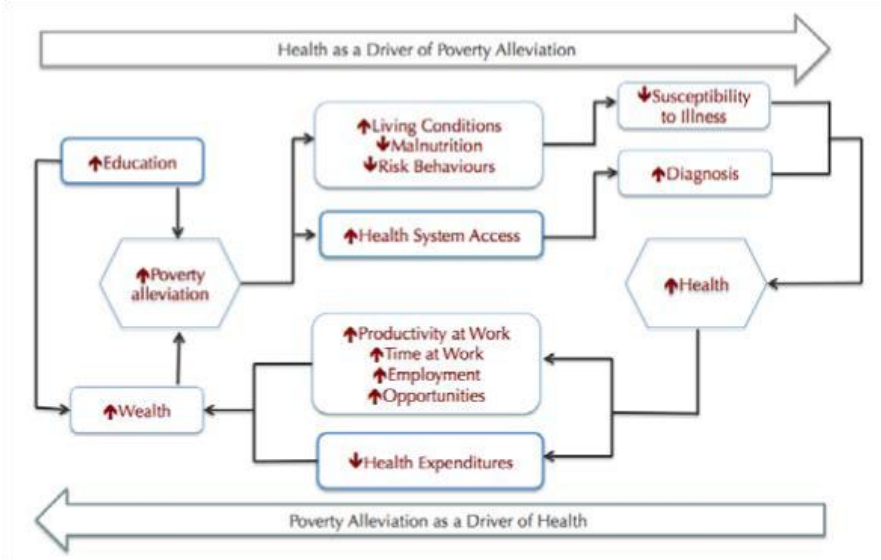
Source: INE, 2024

ANNEX S | Conceptual Model for Community-based Solutions to Promote Health Equity



Source: Committee on Community-Based Solutions to Promote Health Equity in the United States et al., 2017

ANNEX T | Health as a Driver of Poverty Alleviation



Source: Atun et al., 2025

ANNEX U | ICPC-2 Structure: 17 Chapters and 7 Components (in Portuguese)

	Capítulos															
Componentes	A	B	D	F	H	K	L	N	P	R	S	T	U	W	X	Y	Z
1.																	
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	

Capítulos

A	Geral e inespecífico
B	Sangue, órgãos hematopoiéticos e linfáticos (baço, medula óssea)
D	Aparelho Digestivo
F	Olhos
H	Ouvidos
K	Aparelho Circulatório
L	Sistema Músculo-Esquelético
N	Sistema Nervoso
P	Psicológico
R	Aparelho Respiratório
S	Pele
T	Endócrino, Metabólico e Nutricional
U	Aparelho Urinário
W	Gravidez e Planeamento Familiar
X	Aparelho Genital Feminino (incluindo mama)
Y	Aparelho Genital Masculino
Z	Problemas Sociais

Componentes (iguais para todos os capítulos)

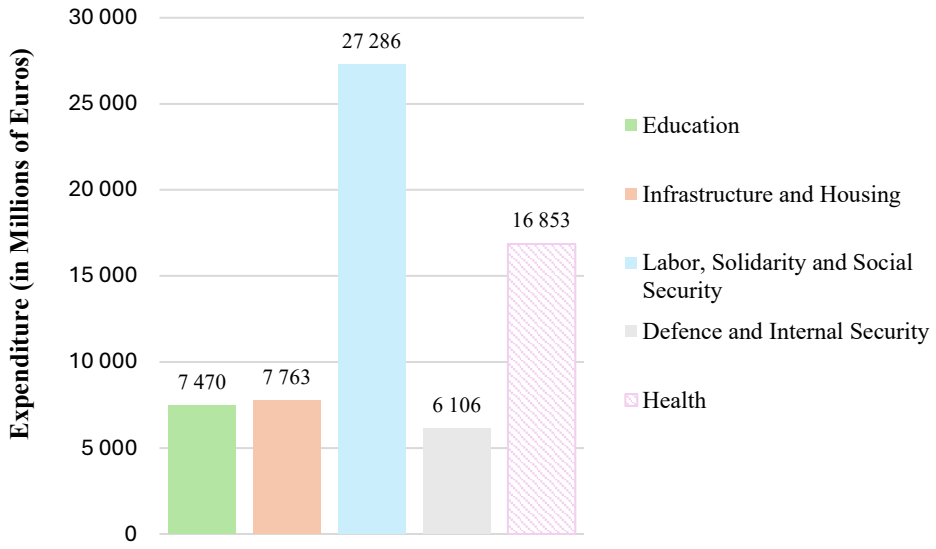
1	Componente de sinais e sintomas
2	Componente de procedimentos diagnósticos e preventivos
3	Componente de medicações, tratamentos e procedimentos terapêuticos
4	Componente de resultados de exames
5	Componente administrativo
6	Componente de seguimento e outros motivos de consulta
7	Componente de diagnósticos e doenças, incluindo:
	- doenças infecciosas
	- neoplasias
	- lesões
	- anomalias congénitas
	- outras doenças específicas

Sempre que possível, foi utilizado um código alfa mnemónico.

Source: WONKA, 2011

Appendices

APPENDIX A | Allocations for Major State Functions in the Budget for Fiscal Year 2025



Source: República Portuguesa, 2024

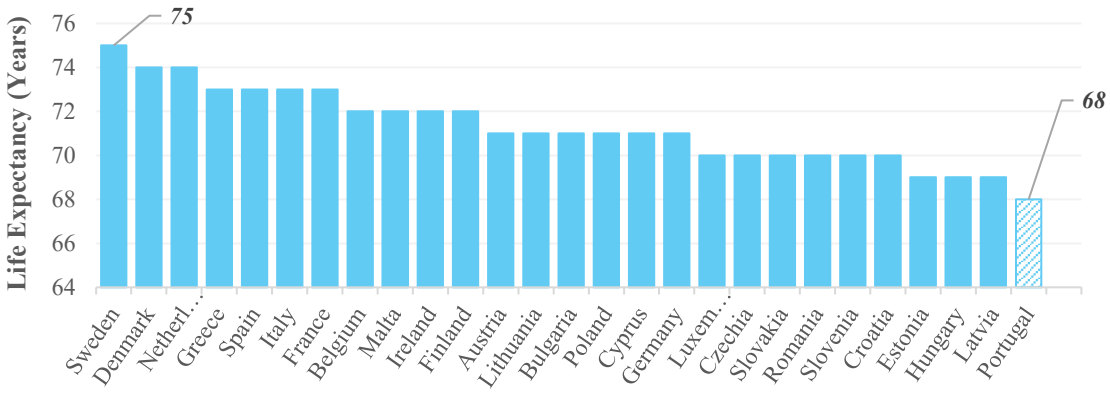
APPENDIX B | Assessment of Portugal's average annual growth in GDP (2010 to 2019)

National GDP growth (annual %) - Portugal					
2014	**2015**	**2016**	**2017**	**2018**	**2019**
0,7	1,6	2	3,3	2,9	2,7
Average Anual Growth	2,2				

1) To estimate Portugal's average annual GDP growth excluding the effect of the Eurozone sovereign debt crisis and the Covid-19 pandemic, the mean growth rate was calculated for the period 2014-2019

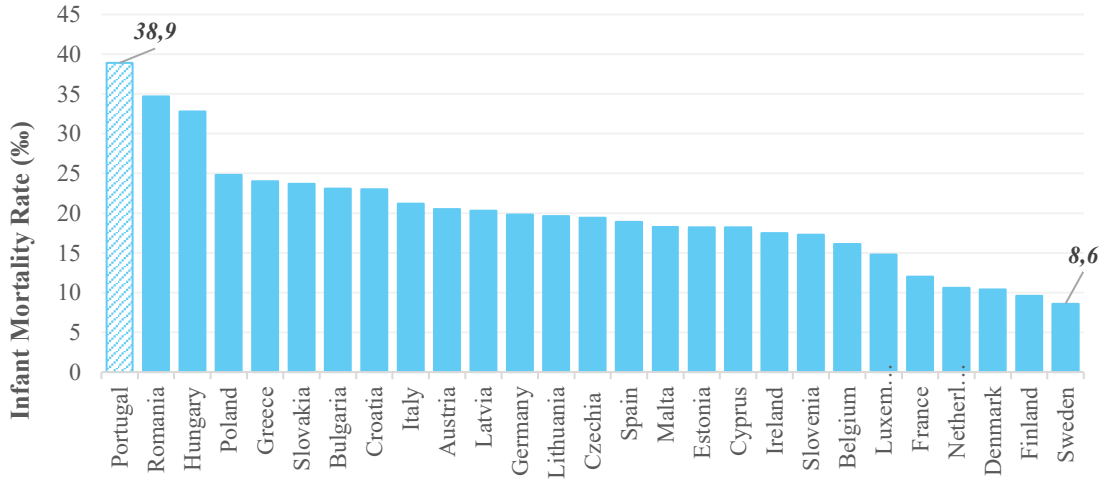
Source: The World Bank Group, n.d.

APPENDIX C | Life Expectancy at birth, Total (years), EU-27, 1975



Source: World Bank

APPENDIX D | Infant Mortality Rate (per 1000 live births), EU-27, 1975



Source: Pordata, World Bank

APPENDIX E | At-risk-of- Poverty or Social Exclusion Rate (Portugal, 2020-2024)

At-risk-of poverty or social exclusion rate (Portugal)		
Year	**Thousand Persons**	**Percentage**
2020	2,056	20%
2021	2,312	22.4%
2022	2,084	20.1%
2023	2,104	20.1%
2024	2,095	19.7%

Source: Eurostat, 2025d

APPENDIX F | Poverty Intensity and Severity in Portugal (2008, 2022 and 2023)

	2008	2022	2023
Poverty Intensity	5%	4.5%	5%
Poverty Severity	2.1%	2%	2.3%

Source: Peralta et al., 2025

APPENDIX G | Homeless Population (in thousands)

	2018	2019	2020	2021	2022	2023
People Living in Homeless Conditions (Thousands)	6.0	7.1	8.2	9.6	10.8	13.1

Source: Alves & Observatório Cáritas, 2025

APPENDIX H | The impact of childhood socioeconomic circumstances on the risk of adult poverty

Socioeconomic Determinants	Description	Effect on Poverty Rates of Children in their Adulthood
Education Level	A father's level of education – whether basic, high school or post-secondary (non-university), university or higher education – has a notable influence on the poverty rates experienced by his children once they reach adulthood.	Adults with fathers who only finished basic education are twice as likely to experience poverty compared to those whose fathers finished high school.
	A father's level of education influences the intergenerational transmission of poverty, by predicting the educational attainment of his children.	Just one out of five adults, whose fathers have only completed basic education, proceed to higher education. In contrast, having a father with a higher education increases the chances of reaching that educational achievement by nearly four times.
Employment Status	Whether the father is employed (full or partial time, self-employed, or not) or inactive (unemployed, retired, other), significantly affects the likelihood of their children experiencing poverty in adulthood.	In comparison to the general results of the inquiry, adults who lived with inactive fathers at age 14 were twice as likely to experience poverty in adulthood.
	The type of job the father holds (whether intellectual or low-skilled) also affects his children's likelihood of experiencing poverty in adulthood.	More than 20% of the respondents whose fathers were agricultural, fishery or forestry workers, or held non-qualified jobs, when the respondents were 14, are currently living in poverty. This proportion decreases to 7% for those whose fathers were in intellectual positions.

Nationality	Should the father not be Portuguese, his children face a greater likelihood of experiencing poverty.	Among the 4.1% of surveyed individuals whose fathers are immigrants, roughly a quarter (25%) are poor, meaning that one in four adults with an immigrant father lives in poverty. Notably, among the 95.9% of respondents with Portuguese fathers, only 14.8% are found to be in poverty.
Household Composition	The presence or absence of adults and the number of children in a household can impact the children's future financial situation.	Adults who grew up in households with over two children face a 23% chance of experiencing poverty. Whereas those from single-parent homes face a 20% risk.
	The absence of a father greatly influences the likelihood of his children experiencing poverty.	In the investigation at hand, only 3% to 4% of respondents reported no contact with their father, yet over 20% of those individuals were impoverished. In contrast, of the 88% of respondents who were raised by both parents, just 15% experienced poverty.
Household Conditions	The financial situation of the household can predetermine the future financial condition of the children living in it.	Children raised in households facing significant or extreme financial difficulties have approximately a 30% chance of being poor themselves upon reaching adulthood. If the household's financial state is moderately poor, this chance reduces to 20%. For households with stable or sound financial health, this proportion is cut by half.
	Experiencing material deprivation during adolescence is associated with higher rates of	Individuals who were brought up in households with limited access to

	poverty and material deprivation in adulthood.	educational essentials (books and school materials) and regular nutritious meals (a daily meal including meat, fish, or a vegetarian option) are twice as prone to fall into poverty.

Source: Peralta et al., 2023

APPENDIX I | Inflation and Median Salary Evolution (by Poverty Condition) in Portugal (in % and €)

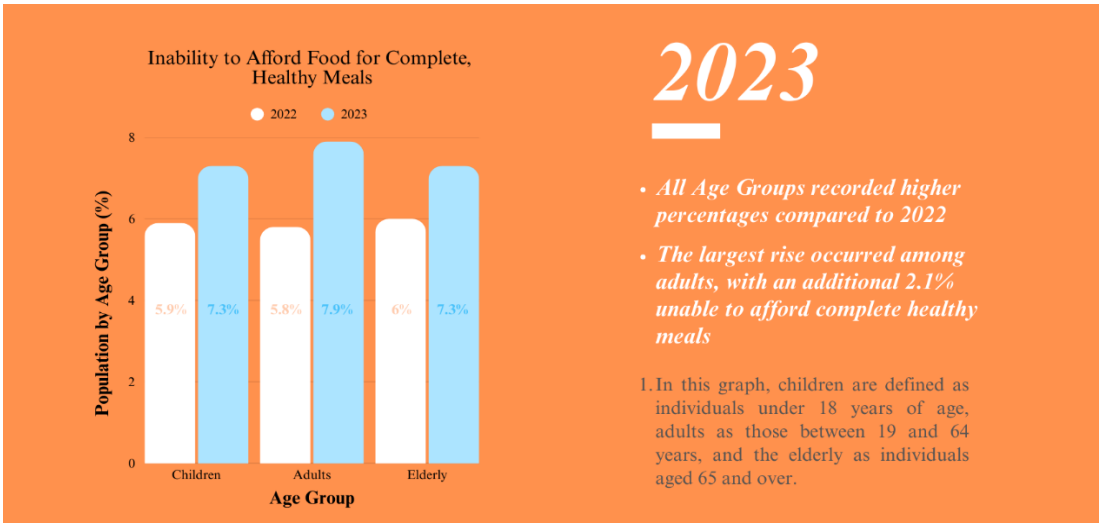
	Inflation	Variation of Annual Median Sallary (Population in Poverty)	Variation of Annual Median Sallary (Non-poor Population)	Variation of Annual Median Sallary (Total)
2000	2,85%	-	-	-
2001	4,37%	-	-	-
2002	3,60%	-	-	-
2003	3,22%	-	-	-
2004	2,37%	-	-	-
2005	2,28%	-	-	-
2006	3,11%	-	-	-
2007	2,45%	-	-	-
2008	2,59%	-	-	-
2009	-0,84%	-	-	-
2010	1,40%	-	-	-
2011	3,65%	-	-	-
2012	2,77%	-	-	-
2013	0,27%	-	-	-
2014	-0,28%	-	-	-
2015	0,49%	-	-	-
2016	0,61%	-	-	-
2017	1,37%	-	-	-
2018	0,99%	-	-	-
2019	0,34%	-	-	-
2020	-0,01%	-	-	-
2021	1,27%	-	-	-
2022	7,83%	6,6%	-2,3%	-0,7%
2023	4,31%	2,1%	8,1%	7,4%
2024	2,42%	6,8%	7,2%	7,0%

Source: Pordata, 2025f & INE, 2025c

	In Poverty		Not In Poverty		Total	
	Annual Median Salary	Annual Variation (in %)	Annual Median Salary	Annual Variation (in %)	Annual Median Salary	Annual Variation (in %)
2024	5641	6,8%	14 113	7,2%	12646	7,0%
2023	5280	2,1%	13 169	8,1%	11824	7,4%
2022	5171	6,6%	12 180	-2,3%	11014	-0,7%
2021	4853	-	12 466	-	11089	-

Source: INE, 2025c

APPENDIX J | Inability to Afford Complete, Healthy Meals by Age Group (in %)



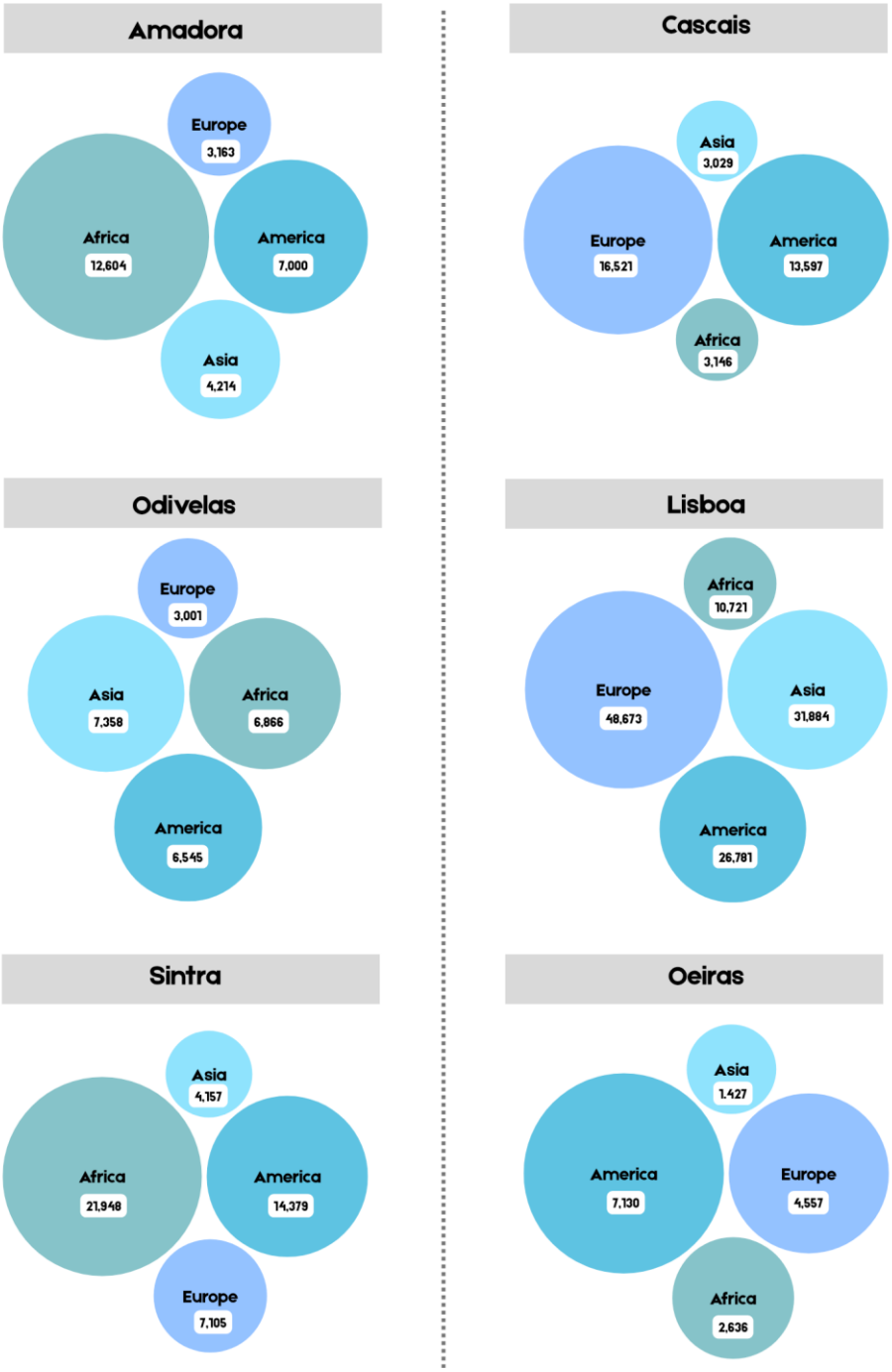
Source: Peralta et al., 2025

APPENDIX K | Immigrants who were granted Portuguese nationality in 2022

Number of Immigrants who were granted Portuguese nationality in 2022	
Origin	**Value (people)**
Countries Outside UE27	**20,316**
Countries within EU27	**528**
1. Africa	**6,240**
1.1. Cabo Verde	**2,225**
1.2. Angola	**1,598**
1.3. Guinea-Bissau	**1,095**
1.4. São Tomé and Príncipe	**640**
1.5. Mozambique	**174**
2. America	**7,233**
2.1. Brazil	**6,404**
2.2. Venezuela	**427**
3. Asia	**4,398**
3.1. Nepal	**1,215**
3.2. India	**1,104**
3.3. Israel	**668**
3.4. Bangladesh	**528**
3.5. Pakistan	**422**
4. Europe	**2,969**
4.1. Ukraine	**1,797**
4.2. Romania	**260**
4.3. Russia	**216**
5. Republic of Moldova	**156**

Source: Pordata, 2025d

<u>APPENDIX L</u> | Distribution of immigrant nationalities among top 3 richest and poorest municipalities of greater Lisbon



Source: Pordata, 2024

<u>APPENDIX M</u> | Annual Perinatal and Infant Mortality (in total deaths) in 2024: A comparison between the Poorest and Richest Municipalities in Greater Lisbon

Municipality		Median Income (Net of personal income tax)	Gini Coefficient (2023)	Fetal Deaths		Neonatal Deaths		Post-neonatal Deaths		7 days – 1 year	
Greater Lisbon		**12 943**	**44.6%**	**106**		**43**		**30**		**41**	
3 Poorest	**Sintra**	12 081	40.3%	32		10		8		10	
	Odivelas	11 972	42.4%	9		5		3		4	
	Amadora	11 755	41.1%	12		7		5		7	
Subtotal (% of Region Total)				**53**	**50%**	**22**	**51%**	**16**	**53%**	**21**	**51%**
3 Richest	**Oeiras**	15 862	44.3%	4		3		1		2	
	Lisboa	14 282	48.5%	25		7		3		5	
	Cascais	13 406	46.1%	9		5		4		6	
Subtotal (% of Region Total)				**38**	**36%**	**15**	**35%**	**8**	**27%**	**3**	**32%**

Source: Instituto Nacional de Estatística, 2025a; Instituto Nacional de Estatística, 2025b; Instituto Nacional de Estatística, 2025d

<u>APPENDIX N</u> | Statistical inferential analysis regarding social disparities in access to PHC: a comparison between the top 3 richest and poorest municipalities in Greater Lisbon


```
*-------------------------------------------------
* Mestrado em Gestão dos Serviços de Saúde, ISCTE, 23-25
* Master's Thesis
* last edited: 16/10/2026
* supervisor: Professor Dr. Henrique Martins
*-------------------------------------------------
* Data source:ULSLOD


*******************************************************************************
*******************************************************************************
*******************************************************************************

* PROGRAM SETUP
*-------------------------------------------------
version 15
set more off
clear all
set linesize 80
macro drop _all
capture log close
*-------------------------------------------------
**** // import data from excel****

*******************************************************************************

* Renaming variables

. rename UnidadeFuncionalporMunicípio USF_Municipality
. rename NºdeMF GP
. rename NºUtentescomMedicodeFamília Patient_GP
. rename NºdeUtentessemMédicodeFamí Patient_no_GP
. rename E Patient_no_GP_option
. rename NºtotaldeUtentesInscritos Enrolled
. rename NºdeUtentesporMédicodeFamí Patient_per_GP

*** NEW VARIABLES (Municipality_poor; Percentage_no_GP_net)

* Municipality_poor
/*
Indicates whether the municipalities are poor, according to the medium Gross
declared income per taxpayer, after personal income tax
*/

*1
 gen Municipality_poor = 0

. replace Municipality_poor = 1 if substr(USF_Municipality,1,2) == "AM"

. replace Municipality_poor = 1 if substr(USF_Municipality,1,2) == "OD"

. replace Municipality_poor = 1 if substr(USF_Municipality,1,2) == "SI"

*2
 gen Percentage_no_GP = Patient_no_GP/Enrolled


* Percentage_no_GP_net
/*
Percentage of registered patients without FHT, not considering those who do not
have a FHT by choice.
*/

. generate Percentage_no_GP = Patient_no_GP/Enrolled


* Inferential

. reg Percentage_no_GP Municipality_poor
/*
      Source |       SS           df       MS      Number of obs   =        82
-------------+----------------------------------   F(1, 80)        =     14.02
       Model |  1.04786124         1  1.04786124   Prob > F        =    0.0003
    Residual |  5.97767677        80   .07472096   R-squared       =    0.1492
-------------+----------------------------------   Adj R-squared   =    0.1385
       Total |  7.02553801        81  .086735037   Root MSE        =    .27335
```

```
78
79  ------------------------------------------------------------------------------
80   Percentage_no_GP | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
81  ------------------+-----------------------------------------------------------
82  Municipality_poor |   .2266943   .0605355     3.74   0.000     .1062249    .3471638
83              _cons |   .0575476   .0443434     1.30   0.198    -.0306987    .1457938
84  ------------------------------------------------------------------------------
85  */
86
87
88
```


Source: Stata

APPENDIX O | Priority Objectives from *The Marmot Review 2010*: Potential PHC Impact: Full Analysis

Priority Objectives from *The Marmot Review 2010*	**Relevant Information**	**Potential PHC impact**
Give every child the best start in life	• Risk Groups among children, more prone to experiencing poverty in adulthood and lower educational attainment, identified in Appendix H (1). • Adverse Childhood Circumstances linked to higher: smoking behaviour in response to associated stress; obesity in response to negative affect and disordered eating; chronic disease incidence; damage on immune and nervous system in response to physical and emotional abuse, with repercussions in cardiovascular and mental health (Marmot et al., 2020).	• General Practitioner with access to biopsychosocial context of the patients (Santos et al., 2013). • In General Practice, when signs of familiar disfunction emerge – such as excessive scheduled appointments by various family members with no organic disease, or behavioural and emotional problems, where the traditional biomedical model proves insufficient – a family assessment becomes mandatory (Santos et al., 2013). • The application of family assessment scales (2) and methods (e.g., family interview) allow for a detailed identification of

		problems and the development of an appropriate assistance plan to address family health dysfunction (Santos et al., 2013). • General Practitioner as manager and connector to appropriate community/social and medical resources (Santos et al., 2013).
Enable all children, young people and adults to maximize their capabilities and have control over their lives	• Poor students register lower levels of educational attainment in secondary school and higher levels of school exclusions (Marmot et al., 2020). • Excluded children experience poorer educational outcomes, diminished health and life prospects throughout their lives, and face a greater likelihood of becoming either perpetrators or victims of crime (Marmot et al., 2020).	• Access to PHC in early-life, – particularly during the prenatal phase and the first three years – «significantly increases children's completed years of education in later life» (Sun et al., 2025). • Refer to Behaviour Therapy: Research on behaviour therapy has shown it to be efficient in decreasing inappropriate behaviour among autistic children, accompanied by

	• Educational attainment has lasting effects on income, job quality, and both physical and mental health (Marmot et al., 2020).	an improvement in their IQ (Lovaas et al., 1973). • Social Prescription: Health Education initiatives within the scope of PHC, intended to strengthen the ability of low-income parents in promoting their children's health, have shown limited effectiveness unless the wider socioeconomic determinants of health are simultaneously addressed (Williamson & Drummond, 2000).
Ensure a healthy standard of living for all	• Poverty leads to poor environmental conditions and limited access to nutritious food (Marmot et al., 2020). • Poverty-induced stress harms both physical and mental health (Marmot et al., 2020).	• Universal Health Coverage promotes the existing link between illness and poverty (O'Donnell, 2024). • PHC promotes universal health coverage and lowers health inequalities, if successfully delivered, leading to healthier and safer societies and to the building of well-being
Create and develop healthy and sustainable places and communities	• «Poor quality housing, particularly damp and cold homes, directly harm physical and mental health» (Marmot et al., 2020).	

		economies (WHO Regional Office for Europe, 2023). • Social determinants of health can be addressed through Social Prescription (Robalo, 2025). • Guidelines for growing anxiety disorders in the context of non-specialized care have been set by the WHO, and include: reference to Cognitive behavioural therapy; endorsement of stress management techniques; prescription of Serotonin Reuptake Inhibitor (WHO, 2023b).

Strengthen the role and impact of ill health prevention	• The English NHS has set a 10-year plan aiming to implement a prevention and community centred care embodied by a Neighbourhood Health System (NHS) . Actions regarding this plan include: investment in the expansion of neighbourhood health services; training thousands more GPs (Department of Health & Social Care & Prime Minister's Office, 2025). • «While the NHS will need investment in the future, it is now self-evident that more money alone has not always led to better care» (Department of Health & Social Care & Prime Minister's Office, 2025).	• PHC integrates care, prevention, promotion and education of health (Van Weel & Kidd, 2018). • Strengthening PHC allows for the improvement of population's health and access to care, while at the same time promoting the national health system's performance and lower health care expenditure (Van Weel & Kidd, 2018). • 20% of our health is defined by health care and 80% by social determinants: Prevention must have a holistic approach (NHS Confederation, 2024) • Investing in aspects of the populations life, from living conditions to exercise initiatives, has been shown to have returns of £6.90 to £34.75 (per £1 spent) (NHS Confederation, 2024).

Source: Author's own elaboration

APPENDIX P | Variables created/used for Inferential Analysis on the impact of PHC in the Social Gradient in Health

Dependent Variable	Description
Symptom_Check	Aggregates A1, B1, D1, F1, H1, K1, L1, N1, R1, S1, T1, UI, X1, Y1
Diagnosis_Check	Aggregates A2, B2, D2, F2, H2, K2, L2, N2, R2, S2, T2, U2, X2, Y2
W82	Miscarriage
W90	Live birth without complications
W92	Live birth with complications
T91	Malnutrition
P03	Depression
P15&P16	Alcohol abuse
P19	Drug abuse

Source: Author's own elaboration

APPENDIX Q | Inferential Analysis on the impact of PHC in the Social Gradient in Health

```
*-------------------------------------------
* Mestrado em Gestão dos Serviços de Saúde, ISCTE, 23-25
* Master's Thesis
* last edited: 16/10/2025
* supervisor: Professor Dr. Henrique Martins

*-------------------------------------------
* Data source:ULSLOD


*******************************************************************************
*******************************************************************************
*******************************************************************************



* PROGRAM SETUP
*-------------------------------------------
version 15
set more off
clear all
set linesize 80
macro drop _all
capture log close

*-------------------------------------------

**** // import data from excel****


*******************************************************************************
*******************************************************************************
*******************************************************************************



* DATA ANALYSIS AND CLEANING

/* Previously to the uploading of this dataset, all the missing values were dropped.
These missing values consisted in various uncompltete observations found in numerous
relevant variables, hence hindering their interpretation in the present analysis.

The names of the original variables were also converted to the ones herein presented,
with the aim of facilitating the identification and analysis of each variable and the
relevant statistical tests conducted further on. */


. describe

/* This code allows us to describe the dataset:

Variables: 55
Observations: 180, 791
Type: From the 55 variables, only 2 were string variables. All other are numerical.
*/

------------------------------------------------------------------------------
Variable      Storage   Display    Value
    name         type    format    label      Variable label
------------------------------------------------------------------------------
Utente          long    %14.2f                Utente
ESF             str4    %9s                   ESF
Isenção         str4    %9s                   Isenção
A1              byte    %10.0g                A1
A2              byte    %10.0g                A2
B1              byte    %10.0g                B1
B2              byte    %10.0g                B2
D1              byte    %10.0g                D1
D2              byte    %10.0g                D2
F1              byte    %10.0g                F1
F2              byte    %10.0g                F2
```

```
H1              byte    %10.0g                H1
H2              byte    %10.0g                H2
K1              byte    %10.0g                K1
K2              byte    %10.0g                K2
L1              byte    %10.0g                L1
L2              byte    %10.0g                L2
N1              byte    %10.0g                N1
N2              byte    %10.0g                N2
P1              byte    %10.0g                P1
P2              byte    %10.0g                P2
P01             byte    %10.0g                P01
P02             byte    %10.0g                P02
P03             byte    %10.0g                P03
P15P16          byte    %10.0g                P15&P16
P17             byte    %10.0g                P17
P19             byte    %10.0g                P19
P22             byte    %10.0g                P22
P23             byte    %10.0g                P23
R1              byte    %10.0g                R1
R2              byte    %10.0g                R2
S1              byte    %10.0g                S1
S2              byte    %10.0g                S2
T1              byte    %10.0g                T1
T2              byte    %10.0g                T2
T91             byte    %10.0g                T91
U1              byte    %10.0g                U1
U2              byte    %10.0g                U2
X1              byte    %10.0g                X1
X2              byte    %10.0g                X2
Y1              byte    %10.0g                Y1
Y2              byte    %10.0g                Y2
Z1              byte    %10.0g                Z1
Z01             byte    %10.0g                Z01
Z05             byte    %10.0g                Z05
Z07             byte    %10.0g                Z07
Z09             byte    %10.0g                Z09
Z12             byte    %10.0g                Z12
Z13             byte    %10.0g                Z13
Z25             byte    %10.0g                Z25
Z29             byte    %10.0g                Z29
W82             byte    %10.0g                W82
W90             byte    %10.0g                W90
W92             byte    %10.0g                W92
SUM             byte    %10.0g                SUM
------------------------------------------------------------------------------
Sorted by:
     Note: Dataset has changed since last saved.


** DATA ANALYSIS AND CLEANING

/* The following analysis presents a statistical description of each variable
and a relevant interpretation of the respective results */



* UTENTE

. codebook Utente

/*
------------------------------------------------------------------------------
Utente                                                                 Utente
------------------------------------------------------------------------------

                  Type: Numeric (long)

                 Range: [1,233626]                    Units: 1
         Unique values: 180,791                   Missing .: 0/180,791

                  Mean:  120259
```

```
143               Std. dev.: 66487.6
144
145             Percentiles:     10%       25%       50%       75%       90%
146                             27468     60120    124947    176996    209454
147 */
148
149 . distinct Utente
150
151 /* The code tabulate is not applicable in this case, since its unique values
152 exceed the defined18 limit */
153
154 /*
155         |        Observations
156         |      total   distinct
157 --------+--------------------
158  Utente |     180791     180791
159 */
160
161
162
163 * ESF
164
165 . codebook ESF
166
167 /*
168 ---------------------------------------------------------------------------------------------
    ----------------------------
169 ESF
                              ESF
170 ---------------------------------------------------------------------------------------------
    ----------------------------
171
172                   Type: String (str4)
173
174          Unique values: 2                         Missing "": 0/180,791
175
176             Tabulation: Freq.  Value
177                         35,317  "Não"
178                        145,474  "Sim"
179 */
180
181 . tabulate ESF
182 /*
183         ESF |      Freq.     Percent        Cum.
184 ------------+-----------------------------------
185         Não |     35,317       19.53       19.53
186         Sim |    145,474       80.47      100.00
187 ------------+-----------------------------------
188       Total |    180,791      100.00
189 */
190
191 * conversion into dummy variable
192 ********************************************************************************
193
194 *1
195 . replace ESF = "1" if ESF == "Sim"
196 . replace ESF = "0" if ESF == "Não"
197
198 *2
199 . gen ESF_1 = real(ESF)
200 . drop ESF
201 . rename ESF_1 ESF
202
203 *3
204 . tabulate ESF
205 /*
206   Equipa de |
207       Saúde |
208    Familiar |      Freq.     Percent        Cum.
209 ------------+-----------------------------------
210           0 |     35,317       19.53       19.53
```

```
          1 |    145,474       80.47      100.00
------------+-----------------------------------
      Total |    180,791      100.00
*/
*************************************************************************************



* Isenção

. codebook Isenção
/*
-------------------------------------------------------------------------------
Isenção

-------------------------------------------------------------------------------

                  Type: String (str4)

         Unique values: 2                         Missing "": 0/180,791

            Tabulation: Freq.  Value
                        159,995  "Não"
                         20,796  "Sim"
*/
. tabulate Isenção
/*
    Isenção |      Freq.     Percent        Cum.
------------+-----------------------------------
        Não |    159,995       88.50       88.50
        Sim |     20,796       11.50      100.00
------------+-----------------------------------
      Total |    180,791      100.00
*/


* conversion into dummy variable
*************************************************************************************

*1
. replace Isenção = "1" if Isenção == "Sim"
. replace Isenção = "0" if Isenção == "Não"

*2
. gen Isenção_1 = real(Isenção)
. drop Isenção
. rename Isenção_1 Isenção

*3
. tabulate Isenção
/*
 . tabulate Isenção

  Indicação |
         se |
    isenção |
         de |
  pagamento |
        dos |
   serviços |
   de saúde |
      pelos |
    utentes |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |    159,995       88.50       88.50
          1 |     20,796       11.50      100.00
------------+-----------------------------------
      Total |    180,791      100.00
*/
*************************************************************************************
*************************************************************************************VER NOTA:
```

```
2540  ********************************************************************************
2541  ********************************************************************************
2542  ********************************************************************************
2543
2544
2545  * DESCRIPTIVE STATISTICS & INFERENTIAL STATISTCS - PER TOPIC
2546
2547
2548  *** Group per type of medical observation
2549
2550  * 1 - Disease Symptoms
2551
2552  ** All the registered symptoms were grouped into one varibale: Symptom_Check. Since the
      goal was to identify the cases were sympotms were registered, rather than the number os
```

```
symptoms per patient, the observations greater than 1 were all converted to 1.

. generate Symptom_Check = A1+B1+D1+F1+H1+K1+L1+N1+R1+S1+T1+U1+X1+Y1

. replace Symptom_Check = 1 if Symptom_Check >= 1

. codebook Symptom_Check
/*
-------------------------------------------------------------------------------------------------------------------------
Symptom_Check                                                                                          (unlabeled)
-------------------------------------------------------------------------------------------------------------------------

                  Type: Numeric (float)

                 Range: [0,1]                         Units: 1
         Unique values: 2                             Missing .: 0/180,791

            Tabulation: Freq.  Value
                        97,923  0
                        82,868  1
*/


* 2 - Disease Diagnosis

. generate Diagnosis_Check = A2+B2+D2+F2+H2+K2+L2+N2+R2+S2+T2+U2+X2+Y2

. replace Diagnosis_Check = 1 if Diagnosis_Check >= 1

. codebook Diagnosis_Check

/*
-------------------------------------------------------------------------------------------------------------------------
Diagnosis_Check                                                                                        (unlabeled)
-------------------------------------------------------------------------------------------------------------------------

                  Type: Numeric (float)

                 Range: [0,1]                         Units: 1
         Unique values: 2                             Missing .: 0/180,791

            Tabulation: Freq.  Value
                        19,075  0
                       161,716  1
*/




***
 *** 1. Can the allocation to a FHT adress the social gradient in health?

*(Symptom_Check)

* Descriptive

. tab ESF Symptom_Check if Isenção == 1, row

/*
 Equipa de |
     Saúde |     Symptom_Check
  Familiar |         0          1 |     Total
-----------+----------------------+----------
         0 |     1,862      2,586 |     4,448
           |     41.86      58.14 |    100.00
```

```
----------+----------------------+----------
        1 |     8,574        7,774 |    16,348
          |     52.45        47.55 |    100.00
----------+----------------------+----------
    Total |    10,436       10,360 |    20,796
          |     50.18        49.82 |    100.00
*/

. tab ESF Symptom_Check if Isenção == 0, row

/*
 Equipa de |
     Saúde |     Symptom_Check
  Familiar |         0          1 |     Total
-----------+----------------------+----------
         0 |    14,508       16,361 |    30,869
           |     47.00        53.00 |    100.00
-----------+----------------------+----------
         1 |    72,979       56,147 |   129,126
           |     56.52        43.48 |    100.00
-----------+----------------------+----------
    Total |    87,487       72,508 |   159,995
           |     54.68        45.32 |    100.00
*/


* Inferential

. reg Symptom_Check Isenção, robust
/*

Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =     149.11
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0008
                                                Root MSE          =     .49806

------------------------------------------------------------------------------
             |               Robust
Symptom_Ch~k | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0449836   .0036838    12.21   0.000     .0377634    .0522037
       _cons |   .4531892   .0012445   364.14   0.000     .4507499    .4556284
------------------------------------------------------------------------------
*/

. reg Symptom_Check ESF, robust
/*

Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =    1079.14
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0060
                                                Root MSE          =     .49678

------------------------------------------------------------------------------
             |               Robust
Symptom_Ch~k | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
         ESF |  -.0970857   .0029554   -32.85   0.000    -.1028783   -.0912932
       _cons |   .5364838   .0026535   202.18   0.000      .531283    .5416847
------------------------------------------------------------------------------
*/

. reg Symptom_Check Isenção ESF, robust
/*
Linear regression                               Number of obs     =    180,791
                                                F(2, 180788)      =     610.52
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0067
                                                Root MSE          =     .49659
```

```
------------------------------------------------------------------------------
             |               Robust
Symptom_Ch~k | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0429618   .0036712    11.70   0.000     .0357663    .0501573
         ESF |  -.0965029   .0029545   -32.66   0.000    -.1022937    -.090712
       _cons |    .531073   .0026936   197.16   0.000     .5257936    .5363524
------------------------------------------------------------------------------
*/


*(Diagnosis_Check)

* Descriptive

. tab ESF Diagnosis_Check if Isenção == 1, row

/*
+----------------+
| Key            |
|----------------|
|   frequency    |
| row percentage |
+----------------+

           |    Diagnosis_Check
       ESF |         0          1 |     Total
-----------+----------------------+----------
         0 |       293      4,155 |     4,448
           |      6.59      93.41 |    100.00
-----------+----------------------+----------
         1 |     1,527     14,821 |    16,348
           |      9.34      90.66 |    100.00
-----------+----------------------+----------
     Total |     1,820     18,976 |    20,796
           |      8.75      91.25 |    100.00
*/

. tab ESF Diagnosis_Check if Isenção == 0, row

/*

+----------------+
| Key            |
|----------------|
|   frequency    |
| row percentage |
+----------------+

           |    Diagnosis_Check
       ESF |         0          1 |     Total
-----------+----------------------+----------
         0 |     3,706     27,163 |    30,869
           |     12.01      87.99 |    100.00
-----------+----------------------+----------
         1 |    13,549    115,577 |   129,126
           |     10.49      89.51 |    100.00
-----------+----------------------+----------
     Total |    17,255    142,740 |   159,995
           |     10.78      89.22 |    100.00
*/


* Inferential

. reg Diagnosis_Check Isenção, robust
/*
Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =      93.06
```

```
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0004
                                                Root MSE          =     .30714

------------------------------------------------------------------------------
             |               Robust
Diagnosis_~k | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0203303   .0021075     9.65   0.000     .0161997    .0244609
       _cons |   .8921529   .0007755  1150.45   0.000     .8906329    .8936728
------------------------------------------------------------------------------

*/

. reg Diagnosis_Check ESF, robust
/*

Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =      26.46
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0002
                                                Root MSE          =     .30719

------------------------------------------------------------------------------
             |               Robust
Diagnosis_~k | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
         ESF |   .0095979   .0018659     5.14   0.000     .0059408    .0132551
       _cons |   .8867684   .0016862   525.91   0.000     .8834636    .8900733
------------------------------------------------------------------------------

*/

. reg Diagnosis_Check Isenção ESF, robust
/*
Linear regression                               Number of obs     =    180,791
                                                F(2, 180788)      =      58.08
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0006
                                                Root MSE          =     .30712

------------------------------------------------------------------------------
             |               Robust
Diagnosis_~k | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0205372    .002111     9.73   0.000     .0163997    .0246747
         ESF |   .0098766   .0018662     5.29   0.000      .006219    .0135342
       _cons |   .8841819   .0017244   512.76   0.000     .8808021    .8875616
------------------------------------------------------------------------------

*/




***
 *** 2. Are there inequalities in the access to a FHT, in Loures-Odivelas?


* Inferential

. reg ESF Isenção, robust
/*
Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =      48.45
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0003
                                                Root MSE          =     .39641

------------------------------------------------------------------------------
             |               Robust
```

```
------------+----------------------------------------------------------------
     Isenção |    -.02095   .0030097    -6.96   0.000     -.026849    -.015051
       _cons |   .8070627   .0009865   818.08   0.000     .8051291    .8089963
------------------------------------------------------------------------------
*/


***
 *** 3. The impact of poverty in pregnancy complications?; Can the allocation to a FHT adress this link?

*(NADO SEM COMPLICAÇÕES DO NADO VIVO)

* Descriptive

. tab ESF W90 if Isenção == 0, row
/*
 Equipa de |
     Saúde |          W90
  Familiar |         0          1 |     Total
-----------+----------------------+----------
         0 |    30,829         40 |    30,869
           |     99.87       0.13 |    100.00
-----------+----------------------+----------
         1 |   129,032         94 |   129,126
           |     99.93       0.07 |    100.00
-----------+----------------------+----------
     Total |   159,861        134 |   159,995
           |     99.92       0.08 |    100.00
*/

. tab ESF W90 if Isenção == 1, row
/*
 Equipa de |
     Saúde |          W90
  Familiar |         0          1 |     Total
-----------+----------------------+----------
         0 |     4,442          6 |     4,448
           |     99.87       0.13 |    100.00
-----------+----------------------+----------
         1 |    16,330         18 |    16,348
           |     99.89       0.11 |    100.00
-----------+----------------------+----------
     Total |    20,772         24 |    20,796
           |     99.88       0.12 |    100.00
*/

* Inferential

. reg W90 Isenção if Gender == 1, robust
/*
Linear regression                               Number of obs     =     24,937
                                                F(1, 24935)       =       1.25
                                                Prob > F          =     0.2637
                                                R-squared         =     0.0001
                                                Root MSE          =     .07935

------------------------------------------------------------------------------
             |               Robust
         W90 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0019152   .0017135     1.12   0.264    -.0014434    .0052739
       _cons |   .0061062   .0005259    11.61   0.000     .0050754     .007137
------------------------------------------------------------------------------
*/

. reg W90 ESF if Gender == 1, robust
/*
Linear regression                               Number of obs     =     24,937
                                                F(1, 24935)       =       6.35
```

```
                                                Prob > F          =     0.0118
                                                R-squared         =     0.0003
                                                Root MSE          =     .07934

------------------------------------------------------------------------------
             |               Robust
         W90 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
         ESF |  -.0036828   .0014618    -2.52   0.012    -.0065479   -.0008177
       _cons |   .0092873    .001363     6.81   0.000     .0066157    .0119589
------------------------------------------------------------------------------
*/


*(NADO COM COMPLICAÇÕES DO NADO VIVO)

* Descriptive

. tab ESF W92 if Isenção == 0, row
/*
 Equipa de |
     Saúde |          W92
  Familiar |         0          1 |     Total
-----------+----------------------+----------
         0 |    30,860          9 |    30,869
           |     99.97       0.03 |    100.00
-----------+----------------------+----------
         1 |   129,096         30 |   129,126
           |     99.98       0.02 |    100.00
-----------+----------------------+----------
     Total |   159,956         39 |   159,995
           |     99.98       0.02 |    100.00
*/

. tab ESF W92 if Isenção == 1, row
/*
 Equipa de |
     Saúde |          W92
  Familiar |         0          1 |     Total
-----------+----------------------+----------
         0 |     4,447          1 |     4,448
           |     99.98       0.02 |    100.00
-----------+----------------------+----------
         1 |    16,342          6 |    16,348
           |     99.96       0.04 |    100.00
-----------+----------------------+----------
     Total |    20,789          7 |    20,796
           |     99.97       0.03 |    100.00
*/

* Inferential

. reg W92 Isenção if Gender == 1, robust
/*
Linear regression                               Number of obs     =     24,937
                                                F(1, 24935)       =       0.37
                                                Prob > F          =     0.5445
                                                R-squared         =     0.0000
                                                Root MSE          =     .04291

------------------------------------------------------------------------------
             |               Robust
         W92 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0005624   .0009279     0.61   0.544    -.0012564    .0023812
       _cons |   .0017772   .0002843     6.25   0.000     .0012199    .0023345
------------------------------------------------------------------------------
*/

. reg W92 ESF if Gender == 1, robust
```

```
/*
Linear regression                               Number of obs     =     24,937
                                                F(1, 24935)       =       0.10
                                                Prob > F          =     0.7576
                                                R-squared         =     0.0000
                                                Root MSE          =     .04291

------------------------------------------------------------------------------
             |               Robust
         W92 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
         ESF |  -.0002175   .0007049    -0.31   0.758    -.0015991     .001164
       _cons |    .002019   .0006378     3.17   0.002     .0007688    .0032692
------------------------------------------------------------------------------
*/


*(ABORTO ESPONTÂNEO)

* Descriptive

. tab ESF W82 if Isenção == 0, row
/*
 Equipa de |
     Saúde |          W82
  Familiar |         0          1 |     Total
-----------+----------------------+----------
         0 |    30,689        180 |    30,869
           |     99.42       0.58 |    100.00
-----------+----------------------+----------
         1 |   128,633        493 |   129,126
           |     99.62       0.38 |    100.00
-----------+----------------------+----------
     Total |   159,322        673 |   159,995
           |     99.58       0.42 |    100.00
*/

. tab ESF W82 if Isenção == 1, row
/*
 Equipa de |
     Saúde |          W82
  Familiar |         0          1 |     Total
-----------+----------------------+----------
         0 |     4,427         21 |     4,448
           |     99.53       0.47 |    100.00
-----------+----------------------+----------
         1 |    16,276         72 |    16,348
           |     99.56       0.44 |    100.00
-----------+----------------------+----------
     Total |    20,703         93 |    20,796
           |     99.55       0.45 |    100.00
*/

*Inferential

. reg W82 Isenção if Gender==1, robust
/*
Linear regression                               Number of obs     =     24,937
                                                F(1, 24935)       =       0.02
                                                Prob > F          =     0.9022
                                                R-squared         =     0.0000
                                                Root MSE          =     .17256

------------------------------------------------------------------------------
             |               Robust
         W82 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0004153   .0033795     0.12   0.902    -.0062088    .0070394
       _cons |   .0306676   .0011639    26.35   0.000     .0283862    .0329489
------------------------------------------------------------------------------
```

```
*/

. reg W82 ESF if Gender==1, robust
/*
Linear regression                               Number of obs     =     24,937
                                                F(1, 24935)       =      16.40
                                                Prob > F          =     0.0001
                                                R-squared         =     0.0008
                                                Root MSE          =     .17249

------------------------------------------------------------------------------
             |               Robust
         W82 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
         ESF |  -.0123088   .0030391    -4.05   0.000    -.0182657    -.006352
       _cons |   .0405815   .0028038    14.47   0.000     .0350858    .0460771
------------------------------------------------------------------------------
*/


 *** 3.2. What is the impact of malnutrition in pregnancy health?

 * Descriptive

. tab Isenção T91, row
/*
           |          T91
    Isento |         0          1 |     Total
-----------+----------------------+----------
         0 |   158,070      1,925 |   159,995
           |     98.80       1.20 |    100.00
-----------+----------------------+----------
         1 |    20,561        235 |    20,796
           |     98.87       1.13 |    100.00
-----------+----------------------+----------
     Total |   178,631      2,160 |   180,791
           |     98.81       1.19 |    100.00
*/
. tab T91 W82 if Isenção == 0, row
/*
           |          W82
       T91 |         0          1 |     Total
-----------+----------------------+----------
         0 |   157,411        659 |   158,070
           |     99.58       0.42 |    100.00
-----------+----------------------+----------
         1 |     1,911         14 |     1,925
           |     99.27       0.73 |    100.00
-----------+----------------------+----------
     Total |   159,322        673 |   159,995
           |     99.58       0.42 |    100.00
*/

. tab T91 W82 if Isenção == 1, row
/*
           |          W82
       T91 |         0          1 |     Total
-----------+----------------------+----------
         0 |    20,473         88 |    20,561
           |     99.57       0.43 |    100.00
-----------+----------------------+----------
         1 |       230          5 |       235
           |     97.87       2.13 |    100.00
-----------+----------------------+----------
     Total |    20,703         93 |    20,796
           |     99.55       0.45 |    100.00
*/

. tab T91 W92 if Isenção == 0, row
/*
```

```
       T91 |         0          1 |     Total
-----------+----------------------+----------
         0 |   158,032         38 |   158,070
           |     99.98       0.02 |    100.00
-----------+----------------------+----------
         1 |     1,924          1 |     1,925
           |     99.95       0.05 |    100.00
-----------+----------------------+----------
     Total |   159,956         39 |   159,995
           |     99.98       0.02 |    100.00
*/

. tab T91 W92 if Isenção == 1, row
/*
           |          W92
       T91 |         0          1 |     Total
-----------+----------------------+----------
         0 |    20,555          6 |    20,561
           |     99.97       0.03 |    100.00
-----------+----------------------+----------
         1 |       234          1 |       235
           |     99.57       0.43 |    100.00
-----------+----------------------+----------
     Total |    20,789          7 |    20,796
           |     99.97       0.03 |    100.00
*/

 * Inferential

. reg W92 T91 if Gender ==1, robust

/*
Linear regression                               Number of obs     =     24,937
                                                F(1, 24935)       =       0.24
                                                Prob > F          =     0.6247
                                                R-squared         =     0.0000
                                                Root MSE          =     .04291

------------------------------------------------------------------------------
             |               Robust
         W92 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
         T91 |   .0009727   .0019886     0.49   0.625    -.0029251    .0048706
       _cons |   .0018167   .0002736     6.64   0.000     .0012803     .002353
------------------------------------------------------------------------------
*/

 . reg W92 T91 if Gender ==1 & Isenção==1, robust
/*
Linear regression                               Number of obs     =      2,992
                                                F(1, 2990)        =       0.68
                                                Prob > F          =     0.4108
                                                R-squared         =     0.0011
                                                Root MSE          =      .0483

------------------------------------------------------------------------------
             |               Robust
         W92 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
         T91 |   .0094288   .0114628     0.82   0.411     -.013047    .0319047
       _cons |   .0020654   .0008426     2.45   0.014     .0004133    .0037176
------------------------------------------------------------------------------

*/




***
```

```
*** 4. Incidence of psychological conditions among the most vulnerable population; What is the impact of FHT?



* (DEPRESSION)

* Descriptive

 . tab ESF P03 if Isenção == 0, row
 /*
  Equipa de |
      Saúde |          P03
   Familiar |         0          1 |     Total
------------+----------------------+----------
          0 |    30,436        433 |    30,869
            |     98.60       1.40 |    100.00
------------+----------------------+----------
          1 |   127,059      2,067 |   129,126
            |     98.40       1.60 |    100.00
------------+----------------------+----------
      Total |   157,495      2,500 |   159,995
            |     98.44       1.56 |    100.00
*/

 . tab ESF P03 if Isenção == 1, row
/*

 Equipa de |
      Saúde |          P03
   Familiar |         0          1 |     Total
------------+----------------------+----------
          0 |     4,380         68 |     4,448
            |     98.47       1.53 |    100.00
------------+----------------------+----------
          1 |    16,061        287 |    16,348
            |     98.24       1.76 |    100.00
------------+----------------------+----------
      Total |    20,441        355 |    20,796
            |     98.29       1.71 |    100.00
*/

* Inferential

. reg P03 Isenção, robust
/*
Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =       2.31
                                                Prob > F          =     0.1283
                                                R-squared         =     0.0000
                                                Root MSE          =     .12467

------------------------------------------------------------------------------
             |               Robust
         P03 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0014451   .0009503     1.52   0.128    -.0004174    .0033076
       _cons |   .0156255   .0003101    50.39   0.000     .0150178    .0162332
*/

. reg P03 ESF, robust
/*
Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =       7.88
                                                Prob > F          =     0.0050
                                                R-squared         =     0.0000
                                                Root MSE          =     .12467

------------------------------------------------------------------------------
             |               Robust
         P03 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
```

```
-------------+----------------------------------------------------------------
         ESF |   .0019958   .0007109     2.81   0.005     .0006024    .0033892
       _cons |   .0141858   .0006293    22.54   0.000     .0129525    .0154192
------------------------------------------------------------------------------
*/



* (ALCOHOL ABUSE)

* Descriptive

 . tab ESF P15P16 if Isenção == 0, row
/*
 Equipa de |
     Saúde |              P15&P16
  Familiar |         0          1          2 |     Total
-----------+---------------------------------+----------
         0 |    30,604        247         18 |    30,869
           |     99.14       0.80       0.06 |    100.00
-----------+---------------------------------+----------
         1 |   127,593      1,488         45 |   129,126
           |     98.81       1.15       0.03 |    100.00
-----------+---------------------------------+----------
     Total |   158,197      1,735         63 |   159,995
           |     98.88       1.08       0.04 |    100.00
*/

 . tab ESF P15P16 if Isenção == 1, row
/*
 Equipa de |
     Saúde |              P15&P16
  Familiar |         0          1          2 |     Total
-----------+---------------------------------+----------
         0 |     4,378         64          6 |     4,448
           |     98.43       1.44       0.13 |    100.00
-----------+---------------------------------+----------
         1 |    16,134        209          5 |    16,348
           |     98.69       1.28       0.03 |    100.00
-----------+---------------------------------+----------
     Total |    20,512        273         11 |    20,796
           |     98.63       1.31       0.05 |    100.00
*/



* (DRUG ABUSE)

* Descriptive

 . tab ESF P19 if Isenção == 0, row
 /*
 Equipa de |
     Saúde |          P19
  Familiar |         0          1 |     Total
-----------+---------------------+----------
         0 |    30,719        150 |    30,869
           |     99.51       0.49 |    100.00
-----------+---------------------+----------
         1 |   128,502        624 |   129,126
           |     99.52       0.48 |    100.00
-----------+---------------------+----------
     Total |   159,221        774 |   159,995
           |     99.52       0.48 |    100.00
*/

 . tab ESF P19 if Isenção == 1, row
/*
 Equipa de |
     Saúde |          P19
  Familiar |         0          1 |     Total
```

```
----------+---------------------+----------
        0 |      4,399          49 |     4,448
          |     98.90        1.10 |    100.00
----------+---------------------+----------
        1 |     16,257          91 |    16,348
          |     99.44        0.56 |    100.00
----------+---------------------+----------
    Total |     20,656         140 |    20,796
          |     99.33        0.67 |    100.00
*/

* Inferential

. reg P19 Isenção, robust
/*
Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =      10.21
                                                Prob > F          =     0.0014
                                                R-squared         =     0.0001
                                                Root MSE          =     .07092

------------------------------------------------------------------------------
             |               Robust
         P19 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Isenção |   .0018944    .000593     3.19   0.001     .0007322    .0030567
       _cons |   .0048377   .0001735    27.89   0.000     .0044977    .0051776
------------------------------------------------------------------------------
*/

. reg P19 ESF, robust
/*
Linear regression                               Number of obs     =    180,791
                                                F(1, 180789)      =       2.69
                                                Prob > F          =     0.1007
                                                R-squared         =     0.0000
                                                Root MSE          =     .07092

------------------------------------------------------------------------------
             |               Robust
         P19 | Coefficient  std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
         ESF |  -.0007197   .0004385    -1.64   0.101    -.0015791    .0001397
       _cons |   .0056347   .0003983    14.15   0.000      .004854    .0064154
------------------------------------------------------------------------------
*/
```

Source: Stata

APPENDIX R | Interviews: Questions and Answers

Interview #1	
Name	**João Sardo Bola**
Role	**Senior Officer, Planning and Innovation Unit, Central Administration of the Health System (ACSS);** **Public Policy Committee Member in HIMSS (Healthcare Information and Management Systems Society)**
Contact Form	**Sales Navigator LinkedIn**
Data of Response	**July 10**



Question 1

Do you consider that the Social Gradient in Health is a Strategic concern on the Portuguese SNS? If it isn't, then in what terms does this lacune compromises SNS's role as a cornerstone of the portuguese democracy?

Answer 1

Original (in Portuguese): Relativamente a esta primeira questão, se por um lado é verdade que desde o 25 de abril o SNS é um dos garantes pilares do estado social democrático, também é verdade que nos últimos anos as pressões crescentes sobre o SNS têm deixado de conseguir garantir essa proteção, afetando especialmente as populações mais vulneráveis em termos de determinantes sociais… nesse sentido diria que as preocupações com a continuidade do bom funcionamento do SNS e a manutenção da sua missão têm sido as principais estratégias, não deixando grande espaço para as questão sociais e de proteção social!

Translated: Regarding this first question, while it is true that since April 25th the SNS has been one of the pillars guaranteeing the democratic social state, it is also true that in recent years the growing pressures on the SNS have failed to guarantee this protection, especially affecting the most vulnerable populations in terms of social determinants... in this sense I would say that concerns about the continued good functioning of the SNS and the maintenance of its mission have been the main strategies, not leaving much space for social issues and social protection!

Question 2

I am currently writing my thesis, under the supervision of Professor Dr. Henrique Martins, on how a prioritized allocation of the poorest populations to PHC can help reduce the Social Gradient in Health in Portugal. My proposal involves including the condition of financial insufficiency as an aggravating criterion for the priority status already established for pregnant women, patients with chronic illnesses, and children up to 12 years of age: do you agree that this is a fair measure and capable of mitigating the social gradation of health in Portugal?

Answer 2

Original (in Portuguese): A situação de insuficiência económica tal como existe neste momento não é um critério justo de inclusão em listas de médico de família, na realidade a atribuição de SIE muitas das vezes, e por estar intrinsecamente ligada a uma mera conta cria e aumenta situações de injustiça gritantes, podemos estar a falar de uma família inteira que por passar em 1 cêntimo por pessoa a dotação de 1, 5 IAS perde da SIE, independentemente de qualquer outra questão, por esse motivo não me parece ser de todo uma estratégia adequada para promover prioridade na atribuição de médico de família, per sí… no entanto outras formas um pouco mais complexa que olha também para as determinantes sociais como critério como são exemplo a Estratificação pelo risco e o Índice de Complexidade do Utente, promovendo assim a atenção devida à questão de baixos rendimentos ou outros que promovam maior fragilidade social, de resto referir que a Estratificação se encontra neste momento a ser utilizada para informar o modelo de financiamento e de gestão clinica e o ICU (Índice de Complexidade do Utente), entre outros, já foi utilizado em teste para a definir prioridades na introdução em ficheiros de CSP.

Translated: The current economic insufficiency is not a fair criterion for inclusion on family doctor lists. In fact, the allocation of Economic Insufficiency Status, which is intrinsically linked to a mere account, often creates and exacerbates glaring injustices. We could be talking about an entire family that, by exceeding the 1.5 IAS (Index of Social Support) allocation by 1 cent per person, loses out on the Economic Insufficiency Status, regardless of any other issue. For this reason, it does not seem to me at all to be an adequate strategy for promoting priority in the allocation of family doctors, per se. However, there are other, slightly more complex, approaches that also consider social determinants as criteria, such as Risk Stratification and the Patient Complexity Index, thus promoting due attention to the issue of low income or other factors that promote greater social fragility. It is worth mentioning that Stratification is currently being used to inform the clinical financing and management model, and the Patient Complexity Index, among others, has already been used in testing to define priorities for inclusion in PHC files.

Further Comments

Original (in Portuguese): Estas respostas partem de experiencia pessoal e não representam de forma alguma visões das instituição aos quais estou vinculado, grato pela compreensão.

Translated: These answers are based on personal experience and in no way represent the views of the institutions to which I am linked. Thank you for your understanding.

Interview #2	
Name	**Nuno Basílio**
Role	**Clinical Director of PHC at the Lisbon Western Local Health Unit (ULS Lisboa Ocidental);** **Phisycian at the Carcavelos Family Health Unit (USF);** **Teaching Assistant - General and Family Medicine, NOVA Medical School;** **Expert - Health Technology Assessmnet Committee**
Contact Form	**Sales Navigator LinkedIn**
Data of Response	**July 10**



Question 1

Do you consider that the Social Gradient in Health is a Strategic concern on the Portuguese SNS?

Answer 1

Original (in Portuguese): A gradação social deve ser uma preocupação do SNS, já que a evidência mostra que o estrato socio-económico tem importante implicação como determinante da saúde. Nesse princípio de garantir equidade de acesso, o SNS tem que ter essa responsabilidade de dar acesso prioritário a quem não tem por via do seu rendimento.

Translated: Social gradation should be a concern for the SNS, as evidence shows that socioeconomic status plays a significant role in determining health. Based on this principle of ensuring equal access, the SNS must assume the responsibility of giving priority access to those who lack access based on their income.

Question 2

I am currently writing my thesis, under the supervision of Professor Dr. Henrique Martins, on how a prioritized allocation of the poorest populations to PHC can help reduce the Social Gradient in Health in Portugal. My proposal involves including the condition of financial insufficiency as an aggravating criterion for the priority status already established for pregnant women, patients with chronic illnesses, and children up to 12 years of age: do you agree that this is a fair measure and capable of mitigating the social gradation of health in Portugal?

Answer 2

Original (in Portuguese): Considero uma medida justa e importante. No caso da ULSLO, exatamente por aplicarmos esses critérios praticamente já não temos residentes nacionais com mais de 70 anos sem médico de família, e a população sem médico tem uma pirâmide consideravelmente mais rejuvenescida do que a pirâmide total da ULSLO.

Translated: I consider this a fair and important measure. In the case of the ULSLO, precisely because we apply these criteria, we have virtually no more national residents over 70 without a general practioner, and the population without a doctor has a considerably younger population than the ULSLO's overall population.

Interview #3	
Name	**Ana Rita Santos**
Role	**Social Assistant at Lisbon Western Health Unit (ULS Lisboa Ocidental);**
Contact Form	**Email**
Data of Response	**July 16**



Question 1

The phenomenon of the Social Gradient in Health recognizes that the lower a person's social status, the worse their health tends to be. In your professional experience, do you interact with this reality frequently? If so, could you share some situations or trends that have impacted you?

Answer 1

Original (in Portuguese): Não podemos taxativamente afirmar que sim, contudo verifica-se menos valorização da saúde em pessoas com menores rendimentos e/ou condições habitacionais/sociais precárias. Estas pessoas quando procuram os serviços de saúde é para tratar a doença e não prevenir. Certamente, poderá estar em falta também literacia na saúde.

Translated: We can't definitively state that yes, but there is less appreciation for health among people with lower incomes and/or precarious housing/social conditions. When these people seek health services, it's for treatment, not prevention. Certainly, there may also be a lack of health literacy.

Question 2

Would including socioeconomic vulnerability as a criterion aggravating the priority already enjoyed by pregnant women, children up to 12 years old, and chronically ill individuals in the allocation of care to a Family Health Team (FHT) be a fair measure, capable of mitigating the Social Gradient in Health?

Answer 2

Original (in Portuguese): Considero que a prioridade não passa por incluir essa questão da vulnerabilidade socioeconómica, mas sim reorganizar os serviços, as políticas de saúde, sociais e até de migrantes. Existe um crescente recurso aos serviços de saúde por parte dos migrantes, que ocupam vagas que posteriormente, não existem para os nacionais, que os obriga a recorrer ao privado e, em casos mais extremos, não fazem uso dos serviços de saúde locais, recorrem indevidamente aos serviços de urgência.

Translated: I believe the priority is not to include this issue of socioeconomic vulnerability, but to reorganize services, health, social, and even migrant policies. There is a growing reliance on health services by migrants, who occupy spaces that subsequently are not available to nationals, forcing them to resort to private healthcare and, in more extreme cases, to not utilize local health services and inappropriately resort to emergency services.

Interview #4	
Name	**Anonymous**
Role	**Social Assistant at Lisbon Western Health Unit (ULS Lisboa Ocidental);**
Contact Form	**Email**
Data of Response	**July 22**



Question 1

The phenomenon of the Social Gradient in Health recognizes that the lower a person's social status, the worse their health tends to be. In your professional experience, do you interact with this reality frequently? If so, could you share some situations or trends that have impacted you?

Answer 1

Original (in Portuguese): Na realidade Hospitalar do SNS, essa circunstância não tem evidência especial.

Translated: In the setting of the Portuguese SNS, this circumstance does not have any special significance.

Question 2

Would including socioeconomic vulnerability as a criterion aggravating the priority already enjoyed by pregnant women, children up to 12 years old, and chronically ill individuals in the allocation of care to a Family Health Team (FHT) be a fair measure, capable of mitigating the Social Gradient in Health?

Answer 2

Original (in Portuguese): Sim.

Translated: Yes.

Interview #5	
Name	**Anonymous**
Role	**Economist**
Contact Form	**Email**
Data of Response	**July 13**



Question 1

What impacts of the Social Gradient in Health do you find most concerning from both a social and an economic perspective?

Answer 1

Original (in Portuguese): A falta de rendimento leva a condições de vida e a opções individuais que aumentam a carga de doença, levando a maior necessidade de cuidados durante o tempo de vida e a menor tempo de vida (total e saudável). Não é apenas dificuldades de acesso a cuidados de saúde por motivos financeiros. Inclui menor capacidade de sustentar outros factores que contribuem para a saúde (habitação, alimentação, consumos como tabaco e álcool, etc). Há também a consequência de menor saúde gerar menor capacidade de gerar rendimento, e dessa forma transmitir através das condições familiares a menor saúde às gerações seguintes.

Translated: Lack of income leads to living conditions and individual choices that increase the burden of disease, leading to a greater need for care throughout life and a shorter (total and healthy) lifespan. It's not just about financial difficulties accessing healthcare. It also involves a reduced ability to support other factors that contribute to health (housing, nutrition, consumption of tobacco and alcohol, etc.). There's also the consequence of poorer health leading to a reduced ability to generate income, thus transmitting poorer health to subsequent generations through family circumstances.

Question 2

Would you say that the Social Gradient in Health contributes to Portugal standing out as one of the EU member states with the highest levels of inequality, as measured by the Gini Coefficient?

Answer 2

Original (in Portuguese): Indice de Gini no rendimento? Provavelmente contribui, embora me pareça que não será um factor central.

Translated: Gini coefficient on income? It probably contributes, although I don't think it's a central factor.

Question 3

Would you say that a stronger intervention by Primary Health Care (PHC) could be a short-term solution to addressing the Social Gradient in Health in Portugal?

Answer 3

Original (in Portuguese): Não será uma solução completa, uma que vez que soluciona apenas o acesso a cuidados de saúde e eventualmente melhor comportamentos que contribuem para melhor saúde. Mais importantes serão os programas que procuram reduzir ou eliminar a pobreza enquanto tal, e o sistema educativo como principal elemento para a igualdade de oportunidades económicas.

Translated: It won't be a complete solution, as it only addresses access to healthcare and potentially improved behaviors that contribute to better health. More important will be programs that seek to reduce or eliminate poverty as such, and the education system as the key element for equal economic opportunity.

Question 4

What economic and social improvements might be seen if the Social Gradient in Health were reduced at a national level?

Answer 4

Original (in Portuguese): A saúde das pessoas, mas não basta reduzir o gradiente, é reduzir o gradiente melhorando a saúde das pessoas com menores rendimentos e não reduzindo a saúde das pessoas com maiores rendimentos, pois ambas as formas reduzem o gradiente económico-social da saúde.

Translated: People's health, but it is not enough to simply reduce the social gradient in health; we must reduce it by improving the health of those with lower incomes without worsening the health of those with higher incomes, since both approaches would reduce the socioeconomic gradient in health.

Interview #6	
Name	**Nuno Crespo**
Role	**Economist**
Contact Form	**Email**
Data of Response	**July 12**



Question 1

What impacts of the Social Gradient in Health do you find most concerning from both a social and an economic perspective?

Answer 1

Original (in Portuguese): Na verdade a existência de desigualdade em saúde é em si mesmo um dos impactos críticos. E é causada acima de tudo por desigualdades económicas (por seu turno geradoras de desigualdades educacionais e sociais em geral). Claro que, num mecanismo que podemos considerar de causalidade circular cumulativa, tais desigualdades em saúde também conduzem a desigualdades económicas, envolvendo variáveis críticas como a produtividade, rendimento, educação, qualidade de vida, etc.

Translated: In fact, the existence of health inequality is in itself one of the critical impacts. And it is caused above all by economic inequalities (which in turn generate educational and broader social inequalities). Of course, in a mechanism that we can consider as cumulative circular causality, such health inequalities also lead to economic inequalities, involving critical variables such as productivity, income, education, quality of life, etc.

Question 2

Would you say that the Social Gradient in Health contributes to Portugal standing out as one of the EU member states with the highest levels of inequality, as measured by the Gini Coefficient?

Answer 2

Original (in Portuguese): Diria o oposto. mais que tudo, é o facto de termos desigualdade forte em termos de rendimento (captável pelo índice de Gini) que ajuda a explicar a desigualdade em saúde.

Translated: I would say the opposite. More than anything, it is the fact that we have significant income inequality (as measured by the Gini index) that helps explain inequality in health.

Further Comments

Original (in Portuguese): Não resisto, num sentido positivo e construtivo, a deixar um comentário quanto à questão central em estudo, um eventual acesso prioritário da população com menos recursos a cuidados de saúde (neste caso primários). Essa eventual "solução", além de ser de difícil aplicação e aceitação social, seria uma fonte adicional de "financiamento cruzado" em saúde. Efetivamente, grosso modo falando, essa camada populacional com menos recursos é a que menos financia o sistema e a que mais o usa, ao passo que a acamada de maiores rendimentos financia muito mais e pouco usa, por problemas de acesso. Mas o mais grave parece-me ser a clara violação do preceito do acesso universal à saúde. Estar-se-ia a criar uma flagrante desigualdade no acesso, administrativamente fixada. Se se entende bem a diferença ao nível do financiamento, será muito complexa a compreensão da diferença assim criada no acesso a cuidados de saúde.

Translated: I can't resist, in a positive and constructive spirit, leaving a comment regarding the central issue under discussion—namely, the possibility of granting priority access to healthcare (in this case, primary care) for the population with fewer resources. This potential "solution," aside from being difficult to implement and socially accept, would also represent an additional form of "cross-subsidization" in healthcare. Broadly speaking, this lower-income segment of the population is the one that contributes the least to the system and uses it the most, whereas the higher-income segment contributes much more and uses it less, due to access issues. However, what seems most serious to me is the clear violation of the principle of universal access to health. It would be creating a flagrant inequality in access, established administratively. While the difference in terms of financing is understandable, the difference thus created in access to healthcare would be much more complex to justify.

Source: Author's own elaboration