

A Work Project presented as part of the requirements for the Award of a Master's Degree
in Management from the Nova School of Business and Economics

SUICIDE PREVENTION IN THE PORTUGUESE NATIONAL HEALTH SYSTEM:
OPTIMIZATION OF RESOURCES

MARIANA DE ALBUQUERQUE TOSCANO RICO
MSc Student Number 57810

Work Project carried out under the supervision of:
João Marques Gomes

21-05-2025

Abstract:

This research investigated the organization, delivery, and funding of suicide prevention in Portugal's National Health System, focusing on patient flows, resource allocation, and inefficiencies. Based on official reports and qualitative interviews with health professionals, it exposed key structural and procedural bottlenecks. Using a strategic management framework, this study analyzed the integration among different public care services. It also demonstrated that suicide rates in Portugal are striking variations in regions, age, and gender. Based on WHO and European practices, this study proposes practical steps to integrate care and prioritize suicide prevention.

Keywords: Suicide Prevention, National Health System (SNS) in Portugal, Resource Allocation, Access to Care, Primary and Hospital Care Coordination

Acknowledgements:

I would like to express my gratitude to Professor João Marques Gomes for the support and guidance during the process of developing this work project, with extensive knowledge, and constructive feedback that were invaluable in molding this research.

My appreciation also goes to all the health care professionals who willingly shared their time, expertise, and thoughts. Their views were very helpful in adding to the practical understanding of the matters concerning suicide prevention in Portugal.

Finally, this work is dedicated to my father, in honor of his memory. The silence that often surrounds mental illness in general, and suicide in particular, is profoundly painful, not only for those who experience it, but also for the families and friends left behind. This thesis aimed to address the broader social and institutional disregard of this issue, by advocating for a more evidence-based, a more empathetic, and a more responsive approach to policy-making and system-level strategies within the field of management and health care.

TABLE OF CONTENTS

1. INTRODUCTION	4
2. LITERATURE REVIEW	6
A. MANAGEMENT OF MENTAL HEALTH SERVICES	7
B. IDENTIFICATION OF RESOURCES WITHIN THE PORTUGUESE NATIONAL HEALTH SYSTEM	8
C. COMPARISON OF MENTAL HEALTH POLICIES IN THE EUROPEAN UNION	10
3. METHODOLOGY	11
4. FINDINGS AND ANALYSIS	12
A. QUANTITATIVE ANALYSIS	12
<i>i. Strategic Positioning and Resource Planning</i>	<i>12</i>
<i>ii. Suicide Rates</i>	<i>13</i>
<i>iii. Mental Health Resources: Structural and Budgetary Concerns</i>	<i>13</i>
<i>iv. Psychiatric Medication and Support Line Data</i>	<i>14</i>
<i>v. Systemic Inefficiencies in Suicide Prevention Management</i>	<i>15</i>
B. COMPARATIVE ANALYSIS OF EUROPEAN SUICIDE PREVENTION POLICIES	16
C. QUALITATIVE AND EXPLORATORY DATA ANALYSIS	16
<i>i. Data Collection Instruments</i>	<i>17</i>
<i>ii. Participants and Sampling Methodology</i>	<i>17</i>
<i>iii. Data Analysis Strategy</i>	<i>18</i>
<i>iv. Patient Pathways</i>	<i>18</i>
<i>v. Systemic Challenges</i>	<i>23</i>
5. DISCUSSION AND RECOMMENDATIONS FOR OPTIMIZATION STRATEGIES	24
6. STUDY LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH	25
7. REFERENCES	26
8. APPENDIX	30
APPENDIX I – SUICIDE RATE BY GENDER 2021	30
APPENDIX II – % DEVIATION FROM NATIONAL SUICIDE RATE (2018-2020 AVERAGE)	31
APPENDIX III – SUICIDE RATE BY AGE GROUP 2021	32
APPENDIX IV – PSYCHIATRISTS PER 100000 HABITANTS – PORTUGAL	33
APPENDIX V – SEMI-STRUCTURED INTERVIEW QUESTIONS	33

1. Introduction

Suicide is considered a worldwide critical public health issue that raises a significant concern on national health care systems both in terms of human loss and resource allocation, with strong social, health care and economic implications. Its significance is demonstrated in its impact on productivity, social cohesion, and general quality of life, rendering it a primary consideration in health care system management. Mental illness is associated with high health care expenditures, increased absenteeism, and decreased productivity of the workforce, eventually resulting in serious social and economic issues (Herrman et al. 2022).

The World Health Organization (WHO) estimates that more than 720000 people die by suicide every year, with the highest rates in Europe (WHO 2025). Recent data from the Organization for Economic Co-operation and Development (OECD) and the European Commission also suggests that mental health tends to be underfinanced and deprioritized within national health systems and that resources are inequitably directed toward physical health issues (2024). However, data from several European Union (EU) nations illustrates that properly coordinated mental health services, crisis intervention mechanisms, and community-based care models can effectively lower suicide rates and enhance public health outcomes (Herrman et al. 2022). In Portugal, the National Health System (Sistema Nacional de Saúde – SNS) is pivotal to the provision of mental health care, yet there is an urgent need to optimize the allocation of resources to ensure its full potential in suicide prevention.

In 2021, a total of 47300 people died by suicide in the EU at an average rate of 10.2 per 100000 population (OECD 2024). In Portugal, the suicide rate among men (14.17 per 100000) is more than four times higher than among women (3.46 per 100000), reflecting a gender disparity that aligns with broader European trends (Appendix I). Although Portugal's global suicide rate is lower than the EU average, it seems to be a persistent issue, particularly in rural areas and among vulnerable groups. It is also marked by having one of the widest differentials

by age across OECD nations – in 2021, the rate among people aged 50-54 (10.81 per 100000) was approximately five times higher than among those aged 15-19 (2.26 per 100000), while for those aged 85 and older (25.32 per 100000), the rate was more than eleven times higher than for youth, and also more than double the rate for people in their early fifties (Appendix III).

However, the current mental health system in Portugal is marred by numerous inefficiencies, including limited access to mental health services, excessive waiting times, and an uneven distribution of mental health professionals across the country (Guedes n.d.; OECD & European Commission 2024). The unequal distribution of resources to mental health and physical health services jeopardizes suicide prevention programs' effectiveness (Guedes n.d.). To surpass these issues, a strategic reappraisal of resource allocation within the SNS should ensure that suicide prevention is adequately financed and prioritized in public health policies.

This thesis analyzes the strategic health management of suicide prevention services' organization, provision, and resource allocation by the SNS at various levels of intervention, including primary care, hospital care, and community-based care. Its aim is to develop and formulate actionable and evidence-based suggestions that may optimize resource utilization, enhance coordination between health care providers, and improve patient outcomes, so that Portugal places suicide prevention at the forefront of public health concerns.

The primary goals of this study were (1) to map the patient care flowcharts of vulnerable mental health patients, undifferentiated or undiagnosed, with and without a primary care provider, and to identify how those patients move through the SNS, from initial contact to follow-up, and (2) to identify structural and procedural bottlenecks within these streams that delay or halt access to care, and to make targeted reform recommendations for improved coordination, response time, and continuity of services.

Therefore, the following research guiding questions were outlined: What are the current process flows for suicide-risk patients in the SNS?; Where are the most significant barriers and

inefficiencies in these flows?; What structural improvements may enhance the delivery of care and reduce avoidable differences across different levels of the national health system?

This study employed a mixed-methods approach, synthesizing national policy and performance data with qualitative input from health professionals. Official sources include the Portuguese National Health Plan, formal reports on the mental health system, the 2025 State Health Budget, and European comparative benchmarks from the OECD and the WHO. Qualitative interviews with health professionals working at various levels of the SNS were undertaken. These ranged from primary care general practitioners (GPs)/ family physicians (Medicina Geral e Familiar – MGF), psychiatrists based in public hospitals, to senior experts with a significant role in the implementation of the national mental health policy.

This thesis contains eight chapters, each one dedicated to a specific area of the research process. Chapter 1 presents the central topic, its importance, and the objectives of the study. Chapter 2 provides a detailed analysis of research in managing mental health care services, including the distribution of resources within the SNS and comparing policies adopted by EU countries. Chapter 3 outlines the methodology, design, data collection instruments, and analysis means. Chapter 4 sets out the main findings. Chapter 5 provides recommendations to improve service delivery and optimize resources. Chapter 6 delivers suggestions for future research. Chapter 7 comprises the reference list. And Chapter 8 includes the supporting annexes.

2. Literature Review

This literature review outlines the background to evaluating suicide prevention in Portugal in the context of health system management. It highlights how differences in levels of care hinder early intervention and ongoing care. It then discusses how resources across the country are allocated and finds crucial disparities in geography, staffing, and access to digital technology that compromises outcomes. Lastly, it employs international evidence to explore

effective policy and organizational models. This overview supports the development of a diagnostic framework based on patient flows, system bottlenecks, and cross-sector coordination that informs the empirical analysis and policy suggestions in subsequent chapters.

a. Management of Mental Health Services

The significance of mental health has increased in public health systems due to its strong influence on individuals, societies, and economies. It is described by the WHO (2024) as "a state of well-being in which an individual realizes their own abilities, can cope with the normal stresses of life, can work productively and is able to contribute to their community".

In Portugal, mental health care is officially part of the general health care system, supported by policy guidelines aimed at fostering equitable and accessible care. There have been notable advances at the policy level, such as the planned creation of new Reference Centers and the strengthening of mental health services to improve access and the quality of care provided within the 2025 State Budget (Observatório da Despesa em Saúde 2024), although implementation challenges seem to remain present. These encompass ongoing disparities in access, lack of continuity of care, and insufficient integration among various levels. Thus, suicide is considered a public health concern, as showed by recent data exposing that a minimum of three people die by suicide daily in Portugal (Ordem dos Psicólogos 2024).

Worldwide, mental health care has changed significantly due to heightened demand and system inefficiencies. International health agencies have promoted tiered-care and community-based models in response. The policies emphasize decentralized, patient-centered care by networks of GPs, psychologists, social workers, and psychiatrists. Treatment is provided in varying degrees according to the patients' requirements, beginning with first-line care and moving to specialized psychiatric care when necessary (OECD 2024). Although having adopted some of these strategies, the SNS still remains challenged by operational fragmentation.

The 2024 Health Access Report identifies major waiting times for psychiatric appointments, shortages of mental health professionals, and geographical imbalance in services (Relatório de Acesso a Cuidados de Saúde 2024). These are one of the main challenges in rural communities and disadvantaged areas, where mental health care is only accessible via hospital emergency departments. Although new initiatives in the 2025 State Budget for Health foresee expanding primary care through the involvement of private and social sectors (Orçamento do Estado para a Saúde 2025), there seems to be a setback in their stable application.

Recent research data highlights the assurance of digital mental health interventions, such as telepsychiatry and internet-based screening programs, in addressing geographic and social status-based disparities (Estatísticas da Saúde 2022). The implementation of such processes and measures within Portugal's health service has been delayed due to bureaucratic barriers and limited investment. Although the PRR (2024) allocates funding for digital technology innovation, the real effect of such efforts seems to be unclear.

In summary, while the Portuguese mental health policy framework is in line with international practices, its operationalization and on-the-ground application is subject to significant challenges. Thus, structuring and coordinating services, most importantly at critical transition phases between primary, hospital, and community care, are particularly lacking. Therefore, this operational diagnosis aimed to provide the foundation for mapping patient flows and identifying structural bottlenecks throughout the Portuguese public health system.

b. Identification of Resources within the Portuguese National Health System

The SNS has a structured network of mental health care, including psychiatric hospitals, outpatient clinics, and primary care units providing psychological and psychiatric intervention. The Mental Health Plan 2020-2030 focuses on decentralizing services and strengthening community-based care to promote access and constant support (Direção-Geral da Saúde 2024).

However, disparities in service distribution and human resource shortage weaken the effectiveness of mental health care in Portugal. There remains a significant need for mental health professionals, standing at 14.1 psychiatrists per 100000 residents, which is below the OECD average (Eurostat 2022) (Appendix IV). Regional asymmetries are also a major concern, with Algarve, Grande Lisboa, and Centro Litoral facing severe shortages of mental health professionals (Appendix II) (Relatório de Acesso a Cuidados de Saúde 2024), causing extended waiting times (e.g., exceeding six months for psychiatric assessment in some areas).

The estimated 2025 consolidated budget attributes €16.75 billion to the SNS, which is 9.9% above the 2024 budget. From this amount, €16.17 billion (96.5%) is allocated to current expenditure, and €578.4 million (3.5%) is intended for capital investment, under the impetus of infrastructure growth and digitalization projects associated with the PRR. Personnel expense accounts for 42.1% of the total current expenditure, with 33.1% assigned to external goods and services and 20% designated to purchase of goods, with more than €2.4 billion in pharmaceuticals and €844 million in medical devices (Ministério da Saúde 2025).

Despite this considerable progress, the budget neither details mental health-related spending, nor it differentiates between psychiatric care in hospitals and preventive or community-based mental health services regarding the allocation of resources. However, the government's SNS Emergency and Transformation Plan, under the 2025 budget priorities, commits to develop health care provision by reducing surgical waiting lists, bringing primary care to all, expanding chronic disease monitoring via telehealth, and strengthening cooperation with private and social sectors (Governo de Portugal 2024). Yet, there are financial barriers, with 8.7% of patients not accessing urgent care due to cost constraints and 6% not attending appointments to avoid loss of daily income (Relatório de Acesso a Cuidados de Saúde 2024).

Thus, the mental health policy implementation in Portugal faces several systemic issues. Underfunding of community-based mental health programs and over-capacity functioning of

psychiatric units reduce their potential for delivering quality and timely care (Direção-Geral da Saúde 2024). In fact, the excessive use of hospital emergency departments for treating psychiatric emergencies reflects the absence of well-organized interventions in primary care.

Social stigma related to mental health also poses a significant barrier to seeking support, shaping public health policies, and allocating health care expenditure (Herrman et al. 2022). Moreover, geographical inequalities in the delivery of mental health care reinforce pre-existing disparities. For instance, the Algarve and Alentejo regions depict high suicide rates and low access to specialized mental health care services, a factor resultant from staffing shortages (Direção-Geral da Saúde 2024). And despite the introduction of technology-driven solutions such as “SNS24” (Serviço Nacional de Saúde 24), their use has been undermined by bureaucratic inefficiencies and budgetary limitations (República Portuguesa 2024).

These structural flaws and resource constraints partially account for the fact that numerous patients have fragmented care trajectories, delayed responses, or are not integrated into the national health care system. In this regard, the findings of this study may support the mapping of patient care pathways and the identification of systemic bottlenecks within the SNS.

c. Comparison of Mental Health Policies in the European Union

EU mental health policies are characterized by several inconsistencies due to differing national systems, resources, and priorities. Some countries integrate mental health into primary care, while others over-focus on hospital psychiatric care. Such discrepancies, once identified, may support Portugal to improve its mental health facilities and suicide prevention initiatives.

According to Werdin and Wyss (2024), Germany launched a government-driven suicide prevention policy following WHO recommendations (e.g., mental health surveillance, significant investment in community services, and laws limiting access to suicide means), while

Switzerland also has a suicide prevention network that comprises psychiatric crisis interventions, internet-based mental state monitoring, and in-hospital intensive treatment.

Denmark developed laws on outpatient commitment with provisions for involuntary mental treatment within the community based on specific criteria. This allows ongoing psychiatric treatment without hospitalization, preventing crises (European Commission 2023).

France has introduced community treatment orders (CTOs) for involuntary mental health treatment by court order, which obligate individuals with severe mental illness to undergo psychiatric services and comply with treatment (European Commission 2023).

The Netherlands has a stepped-care approach, organizing mental health care by intensity to provide appropriate interventions before specialized care. This enhances resource efficiency, reduces unnecessary hospitalization, and promotes early intervention (OECD 2024).

Finland and Sweden have settled successful mental health crisis prevention policies, such as hotlines, early intervention, and social support actions. Sweden's Compulsory Psychiatric Care Act, initiated in 1991 and amended in 2008, has strengthened intervention by establishing criteria for early treatment for vulnerable people (European Commission 2023).

In summary, EU policies on suicide prevention focus on three pillars: 1) Public health interventions – anti-stigma campaigns and early identification screenings; 2) Crisis intervention services – 24/7 helplines, mobile response teams, and emergency rooms offering on-the-spot support; 3) Programs for vulnerable individuals – real-time digital platforms for suicide risk detection and early intervention. These models may provide beneficial insight on the integration of mental health treatment and suicide prevention into public health services in Portugal.

3. Methodology

Although the different phases of suicide prevention and mental health care in the SNS are interdependent, this study delineates specific analytical processes, relying on policy

documents and reports, clinical guidelines, and meaningful data from key sources (e.g., WHO, OECD, DGS, Portuguese Ministry of Health, and other national observatories).

This study also included a qualitative part to optimize insight into the SNS provision processes. Semi-structured interviews were conducted with 30 health professionals, including GPs, hospital-based psychiatrists, and senior mental health officials engaged in policy design and service delivery. The report of these experts yielded valuable information on clinical practice, organizational structures, referral mechanisms, and gaps and resources in services. The response interviews enabled to create a flowchart of the patient pathway for individuals at risk of suicide in the SNS. This visual aid makes it easier to spot systemic issues and informs strategic recommendations for the improvement of care and responsiveness of the public health system. Thus, the policy recommendations synthesize interview and analysis findings and bring both viewpoints together, aiming at a more effective and coordinated mental health care system.

4. Findings and Analysis

a. Quantitative Analysis

i. Strategic Positioning and Resource Planning

Although mental health has gained increasing space in public discussion and policy agenda, suicide prevention seems to be weakly operationalized in Portugal. The State Budget for 2025 allocates €16.75 billion to the SNS – a 9.9% increase as compared to the previous budget – with €7.05 billion designated for human resources. These encompass novel contractual models to expand access to family physicians by connecting private and social sectors.

Despite these funding commitments, suicide prevention is not identified as a specific budget line and does not have a structured implementation plan. Mental health is considered in general terms, lacking strategic definition, clearly articulated performance targets, and governance arrangements. While the PRR supports the development of digital infrastructure, it

seems to neglect to prioritize suicide prevention, instead providing funding for broader mental health efforts without clearly defining the measures aimed at reducing suicide risk.

ii. Suicide Rates

The suicide rate in Portugal in 2019 stood at 7.2 per 100000 inhabitants, which is lower than the EU average of 12.9. This statistical picture, however, may underestimate the real scope of the problem. Suicide is significantly underreported with attempted suicides occurring as much as 25 times more frequently. This epidemiologic imbalance reflects the absence of a unifying surveillance structure and weakens efforts to establish targeted interventions. With a more prompt, aggregated, and consistent action, public health professionals may effectively prioritize at-risk populations and measure the significant outcomes of prevention approaches.

iii. Mental Health Resources: Structural and Budgetary Concerns

In 2023, Portugal's public health expenditure accounted for 13.2% of total government spending, with a modest increase projected to 13.3% by 2025. Yet, structural underinvestment in mental health persists. The SNS has 14.1 psychiatrists per 100000 population, a number which is below the EU average of 17 and lacks an equitable distribution of human resources. The regions of Algarve, Grande Lisboa, and Centro Litoral seem to be seriously underserved.

Also, mental health care is mostly governed by hospital structures. In 2022, 73.3% of total inpatient episodes and 79.7% of emergency department presentations were treated in public hospitals. These statistics point to a hospital-centric model where mental health crises frequently escalate to urgent care due to a lack of early intervention response capacity.

At a broader dimension, in 2023, only 80% of the population had a designated family physician – a steep decline from 91% in 2019. This decrease disproportionately impacts youth and young adults (15-29), as well as those with lower incomes, and those living in peripheral

areas. The lack of a family physician weakens both early detection and referral ability, two widely and evidence-based recognized foundations of successful suicide prevention.

Additionally, these access constraints are compounded by financial costs. Medications accounted for 89.5% of primary care out-of-pocket expenses and 70.5% of emergency care expenses. Such disproportionate costs weigh heavily on vulnerable populations and may discourage continuity of care, resulting in therapeutic dropout and risk amplification.

iv. Psychiatric Medication and Support Line Data

There has been a consistent increase in the prescription of psychiatric medication in Portugal, specifically Central Nervous System pharmacological treatments. In 2022, more than 30% of all subsidized medication belonged to this category, 90% of which were subsidized by the government. This indicates both high rates of prescription and high financial support for medication (INE 2024). Portugal's health care system demonstrates a high dependence on pharmacological intervention, in line with the empirical evidence of the efficacy of medication in decreasing suicidal thoughts. However, available data also suggests poor access to psychological treatment and outdated clinical protocols that have not been updated since 2012.

In 2023, the average direct payment for medications during primary care appointments in Portugal was 23€ (Nova SBE 2024, p. 29). Conversely, in emergency care visits, medications accounted for 70.5% of the overall out-of-pocket health expenses associated with the visit (Nova SBE, 2024, p. 31). The burden related to these costs was consistently rated as the highest by the patients irrespective of their income level (Nova SBE 2024, p. 32).

Notably, financial constraints are a key cause for treatment omission among low-income groups, with 9.1% reporting being unable to afford all prescribed medications (Nova SBE 2024, p. 34). This economic barrier creates a pattern of inadequate health care needs, fragmented interventions, and missed opportunities for preventive actions.

Furthermore, crisis response services are mainly operated by civil society organizations. National helplines, such as SOS Voz Amiga, responded to approximately 9500 calls in 2022 (SOS Voz Amiga 2023), and Telefone da Amizade answered 1345 calls in 2023 (Telefone da Amizade 2024). These services, which rely on volunteer staff, are under-funded and remain disconnected from the formal health care system. Despite being crucial in providing frontline support, they lack official integration within the SNS or access to public funding streams.

v. Systemic Inefficiencies in Suicide Prevention Management

Several critical operational deficiencies seem to undermine the capacity of the SNS to carry out a quality and timely suicidal prevention strategic plan:

- Capital expenditures are usually not applied to their maximum capacity due to bureaucratic delay or slow procurement processes (Pita Barros, Santos 2024).
- Fiscal imbalance causes delays in the payment of vendors and service suppliers, particularly in mental health centers (Pita Barros, Santos 2024).
- Portugal faces a shortage of trained mental health professionals, with an estimated gap of 1.2 million workers across the EU (OECD, European Commission 2024).
- The absence of an integrated data infrastructure across primary, hospital, and community care impedes efficient patient monitoring, treatment pathway coordination, and long-term support, undermining continuity of care (Pita Barros, Santos 2024).
- Suicide prevention efforts are overly reliant on voluntary services and NGOs, lacking formal integration with national health services and official public funding (SOS Voz Amiga 2023; Telefone da Amizade 2024).

b. Comparative Analysis of European Suicide Prevention Policies

Country	Suicide Rate / 100000 habitants (2022)	Key features
Denmark	10.58 / 100000	Outpatient commitment laws, strong community-based frameworks
Finland	13.37 / 100000	24/7 crisis systems, Compulsory Care Act, school-based programs
France	13.58 / 100000	Judicial CTOs, AI systems, public investment in community care
Germany	11.21 / 100000	Community CTOs, AI risk detection
Netherlands	10.78 / 100000	Stepped-care, integrated planning and early intervention
Sweden	12.47 / 100000	Early detection, robust legal instruments, stigma-free discourse
Switzerland	11.10 / 100000	Crisis teams, digital psychiatric monitoring, hospital-based intensive care

Table 2 - European Suicide Prevention Policies (Source: Eurostat 2025)

Compelling comparative findings highlight the effectiveness of coordination between various sectors paired with the invaluable role of early crisis prevention and intervention programs, as well as significant underlying systemic issues, that include constant insufficient financial investment, particularly in poor coordination across health, social and emergency services, and a severe shortage of mental health professionals. These scarcities seem to impact the adequacy and availability of suicide prevention actions and emphasize the need for broader and more evidence-informed policy solutions focusing on the Portuguese national context.

c. Qualitative and Exploratory Data Analysis

The qualitative segment of this study aimed to explore in depth the health care pathways followed by high-risk suicide patients within the SNS. This was achieved by collecting first-hand information, operational knowledge and expertise from frontline professionals working

across all three levels of health care: primary, community, and hospital-based mental health services. The purpose was to identify prevailing bottlenecks, inconsistent referral practices, and day-to-day problems concerning the provision, continuity, and coordination of care.

i. Data Collection Instruments

A semi-structured interview was employed to allow flexibility within consistency across key thematic domains. This framework enabled the gathering of both objective and subjective data, uncovering operational difficulties in immediate clinical environments.

The interviews were framed by questions grounded on the following issues:

- Recognition and management of suicidal risk
- Referral mechanisms and coordination between services
- Engagement with support networks and community structures
- Availability and limits of clinical and human resources
- Primary care physicians' duties and psychological training
- Perspectives regarding system constraints and recommendations for improvement

ii. Participants and Sampling Methodology

A total of 30 health professionals participated in this study. They were selected through purposive sampling, with a focus on professionals with direct experience in managing patients with mental health concerns and at risk of suicide. Therefore, it included GPs, psychiatrists, community mental health team members, and professionals from hospital-based psychiatric services. This profile diversity ensured a broad range of viewpoints, which agrees with the three main operational pillars of the SNS. It also allowed to explore the nature of care provision, and the determination of the systemic vulnerabilities faced at multiple levels of health care.

iii. Data Analysis Strategy

Thematic findings emerged from a comparative analysis of the responses generated from the interviews. The results were examined for recurring patterns, shared experiences, and operational challenges reported at various levels of the health system. The findings were subsequently clustered around the key phases of patient care – initial identification, referral processes, response to treatment, and follow-up – with an emphasis on specific systemic inefficiencies. The primary categories identified from the analysis of these results were:

- Delays in referral and psychiatric evaluation
- Lack of standardized follow-up
- Poor communication among primary care physicians and mental health services
- Resource constraints (e.g., staff; time; communication; equipment, etc.)
- Excessive dependence on emergency department rooms
- Insufficient mental health specific training
- Absence of consultative assistance for GPs

iv. Patient Pathways

To integrate these findings into a coherent operational framework, a series of structured and comprehensive flowcharts was developed. The figures illustrate the current patient trajectories through various entry points and service levels of the SNS, in this case reportedly with suicide risk. Directly derived from the interview material, the flowcharts clarified main procedural steps, crucial decision points, and significant inadequacies or inefficiencies in the provision of services. This transition from vision to action enables the identification of tangible barriers and the development of evidence-based, system-level interventions designed to enhance continuity of care and measure suicide outcomes.

Primary Care Pathway (Unidade de Saúde Familiar – USF)

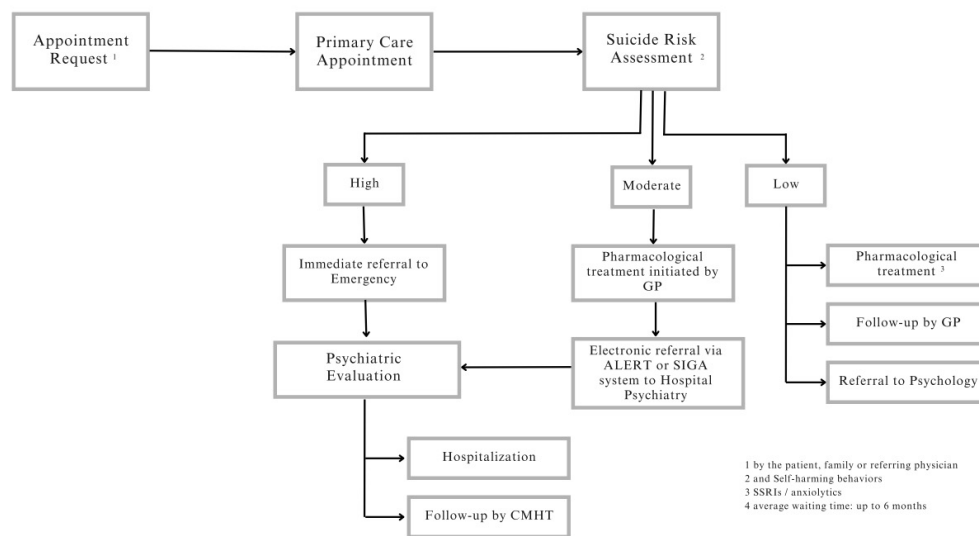


Figure I – Primary Care Pathway (USF)

Figure I shows the integrated patient pathway for suicide risk in the Family Health Units (USF) from initial contact to specialist intervention or follow-up. This begins with a request for an appointment, possibly initiated by the patient, family, or referring practitioner. It is followed by primary care consultation, during which the GP carries out a suicide risk assessment, including suicidal ideation and planning, previous attempts, or self-injury behaviors.

According to the clinical diagnosed risk level at this point, the development process branches out into three possible different directions:

- **Low risk:** Nonspecific suicidal ideation is generally managed with pharmacotherapy (e.g., SSRIs; anxiolytics). Such patients are followed up by the GP and, when possible, they are also referred for psychological counselling. The availability of psychological treatment is, however, limited, with average waiting periods of up to six months, which may compromise the effectiveness and timeliness of non-pharmacological intervention.
- **Moderate risk:** For patients with more persistent suicidal thoughts, the GP also initiates pharmacological treatment but electronically refers the case via the ALERT or SIGA system to a psychiatry hospital service for medical assessment. These referrals are prioritized based on clinical urgency: Very urgent cases (maximum of 30 days of

waiting time); Emergency situations (up to 60 days of waiting time); and Normal priority (no longer than 120 days of waiting time).

- High risk: In the case of imminent life threat in the form of recent suicidal behavior or active suicidal plans, urgent emergency services are activated. After stabilization, in the hospital, psychiatric evaluation is conducted. Findings may require inpatient management or home monitoring by a Community Mental Health Team (CMHT).

Community Mental Health Team (CMHT) Pathway

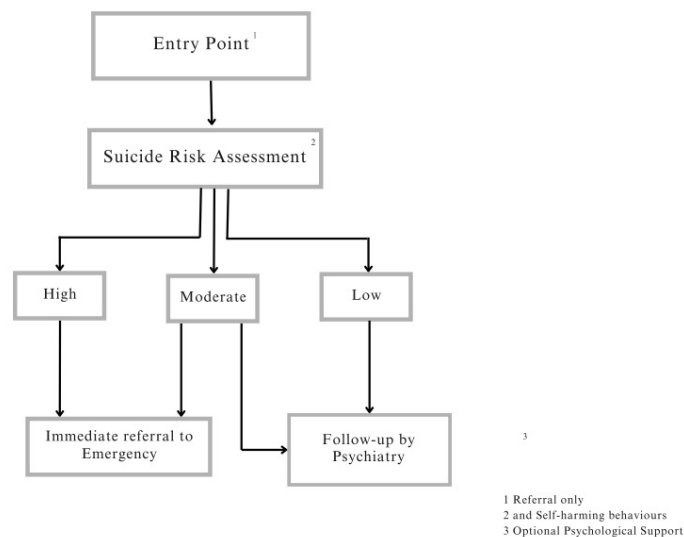


Figure II – Community Mental Health Team (CMHT)

Figure II indicates the internal patient treatment dynamics of a Community Mental Health Team (CMHT), referred to as Equipas Comunitárias de Saúde Mental (ECSM). These teams comprise psychiatrists, psychologists, nurses, and social workers with a view to bringing care close to the patient's residence. Patients are not able to self-refer to CMHTs as it must be done through primary care, hospital, or local support. Risk assessment for suicide is then undertaken following referral, and there are three levels of established identified risk:

- Low risk: The patient is evaluated by psychiatric services and may be offered voluntary psychological support.

- Moderate risk: The patient is placed under psychiatric monitoring, with potential psychological intervention when resources are available.
- High risk: The patient is redirected to the emergency department due to the diagnosed severity of the case.

Hospital Admission Pathway

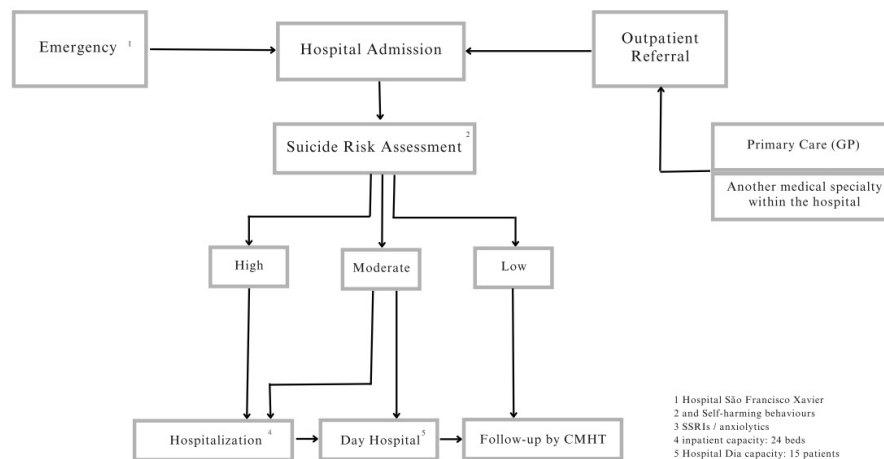


Figure III – Pathway for Hospital Admission (CHLO)

Figure III illustrates the functional mental health care pathway in Centro Hospitalar de Lisboa Ocidental (CHLO), one of the major public health care structures in Lisbon, comprising several hospitals and health services, both for outpatient and inpatient needs. Public hospital treatment starts at the emergency department visit or referral from primary care, followed by psychiatric assessment and, in serious cases, hospitalization at specific CHLO hospitals.

The psychiatric emergencies in São Francisco Xavier Hospital are handled in general emergency sections since there is no psychiatric department. There was a special unit built, but it is not available due to the shortage of staff, especially nursing and security personnel.

CHLO's experts note that this situation causes distress, and it is harmful to patients with suicidal thoughts or psychotic episodes. Despite measures like alarmed monitoring bracelets, understaffing has enabled patients to escape through windows or unwatched parts of the unit.

After emergency or crisis intervention, patients may be referred to three options: outpatient psychiatric consultation, a 15-patient day hospital, or CMHTs. Yet, all transfers are liable to lengthy waits, understaffing, and informal feedback mechanisms. In an interview held at Egas Moniz Hospital, respondents discussed the novel CRI (Community Mental Health Response) teams, which were planned to be instituted in early 2024 by the Portuguese health authorities (INEM, 2024). The policy aims at specialized multidisciplinary teams for the treatment of community mental health in 15 Local Health Units (Unidade Local de Saúde – ULS).

Integrated System Representation (ULSLO: CHLO + USF)

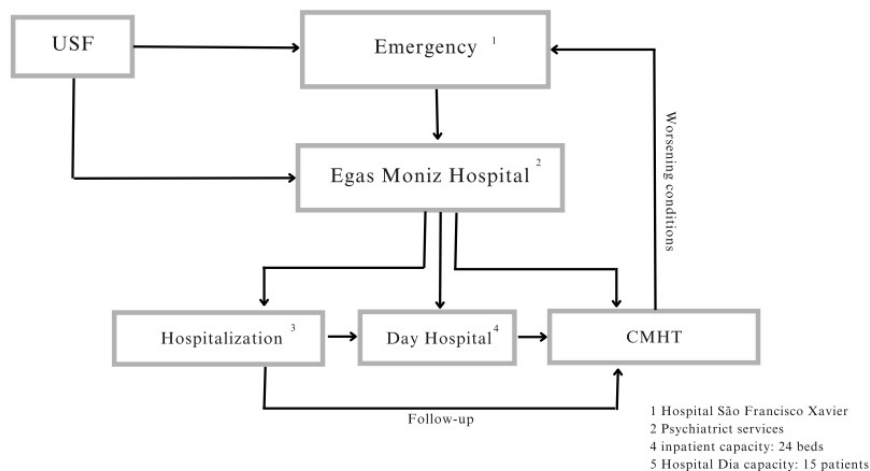


Figure IV – Integrated System Representation (ULSLO: CHLO + USF)

Figure IV depicts a synthesized macro-flow of patient movement through the Lisbon Western Local Health Unit (ULSLO) with integration of CHLO hospitals and primary care units (USFs). It aims at patients with suicidal ideation or psychiatric crisis, following the pathways of referrals between levels of care. This system is accessed via primary care services (USF) or via the emergency service of São Francisco Xavier Hospital. According to the nature of their illness, patients are referred to the psychiatric services of Egas Moniz Hospital, which provides outpatient appointments, psychiatric inpatient treatment, and day hospital care.

This pathway includes options for follow-up from CMHTs and highlights feedback loops, such as readmission to emergency care upon worsening clinical condition. Despite this formal integration, this flowchart visually illustrates systemic fragmentation, especially in coordination post-discharge, continuity of care, and overload at the emergency level.

v. Systemic Challenges

Flowcharts are relevant visual and analytical aids to identify recurring issues in the continuity of care for suicide risk patients in the SNS. Qualitative data from both hospital personnel and GPs revealed some primary barriers and difficulties:

- Limited practical communication across levels of care: Respondents described communication as "one-sided," particularly between primary care and mental health services. Referrals are rejected without sufficient explanation, and GPs lack consultative support in managing complex cases before hospital assessment.
- Overdependence on emergency departments as the primary entry point for acute mental health crises, driven by inappropriate responses and a lack of psychiatric facilities.
- Human resource shortage: The lack of health professionals limits the ability to adhere to clinical guidelines, e.g., offering therapy along with pharmacological interventions.
- Insufficient training and imprecise referral criteria: Suicide risk assessment training and clearer referral criteria to psychiatry, psychology, or emergency services was stated.
- Inadequate infrastructure and monitoring systems: Limited consultation space for mental health professionals and structured follow-up arrangements post-discharge or while waiting for secondary care were also pointed out by the respondents.

These findings highlight the need to reinforce systemic processes in the SNS. The next chapter provides evidence-based management practices and policies for improving coordination, referrals, and suicide prevention across all levels of care in the national public system.

5. Discussion and Recommendations for Optimization Strategies

This study explored the structure, accessibility, and resource distribution of suicide prevention within the SNS. Three main inefficiencies were identified: discontinuity between levels of care, overreliance on emergency services, and a shortage of mental health professionals. These gaps delay timely interventions, especially for vulnerable groups, and may lead to adverse outcomes. Therefore, it is proposed a strategic three-year action plan, organized around eight priorities of relevance and in line with the financial commitments from the PRR.

Its key priorities would be: (1) enhancing primary mental health care through the provision of suicide prevention training to GPs; (2) developing community-based mental health centers in under-provided areas; (3) use of private sector professionals to minimize waiting lists; (4) placing mental health professionals in diverse social structures (e.g., schools, employment services, etc.); (5) increasing clinical trainings; (6) introducing a nationwide case management system; (7) beginning a national electronic triage procedure; and (8) setting up an observatory to monitor central measures (recovery rates, engagement levels, continuity of care).

This timeline would be developed in the following format: 2025 – Launch GP training in three high-risk regions, increasing the recruitment of mental health professionals through improved policies and competitive salaries, as well as building a digital triage platform, and establish a national suicide prevention observatory; 2026 – Implement the digital triage procedure, expand mental health support in workplace settings, and introduce stepped-care processes; 2027 – Establish a national case management system, standardize clinical care pathways, and audit outcomes to guide ongoing policy and consistently improve effectiveness.

Given the results presented, this thesis pointed at a set of strategic recommendations aimed at optimizing resource allocation of suicide prevention within the SNS, prioritizing efficiency, accessibility, and sustainability, considering our structural and regional specificities. These suggestions intend to promote a more proactive response by incorporating those

measures into a wider mental health strategy, aspiring at a significant progress toward reducing suicide rates and supporting the mental health of the population. The core recommendation would, therefore, be a nationally coordinated and resource-optimized prevention action plan grounded in evidence-based measures and scalable within the national health current framework. In fact, Portugal seems to have the institutional structure and professional vision to advance its outlook into suicide as a public health concern. The next required step would be a strong political commitment and a more aligned investment to convert strategy into tangible outcomes and measurable impact. By embedding suicide prevention transversely throughout the main structures of the SNS, the national public health leadership sector may play a key role in protecting lives and advancing mental health quality and accessibility across the nation.

6. Study Limitations and Suggestions for Future Research

The scope of this investigation was shaped by a number of limitations. Benchmarking was limited, and broader system-level findings were impeded by the scarcity of comparable international data. Generalization was hindered by variations in care models, governance, and funding. Qualitative data was based on 30 respondents, influenced by institutional politics, personal experience, and local circumstances. Therefore, the results may not be steadily applied. In mental health care, where staffing, coordination, and service access vary by region, this is especially important. Thus, future studies should increase the number of participants and guarantee more equitable geographical representation. More focused and situation-specific recommendations would be possible with deeper regional comparisons. It would also be beneficial to examine the role of the private sector in mental health and suicide prevention.

Finally, combining demographic and socioeconomic analysis may help to meet the requirements of vulnerable and high-risk groups. More inclusive, successful public policies would demand an understanding of the ways how social disparities affect mental health access.

7. References

Associação SOS Voz Amiga. 2022. Plano de ação, objetivos e orçamento – Ano 2023. Lisbon: Associação SOS Voz Amiga. <https://www.sosvozamiga.org>.

Associação SOS Voz Amiga. 2023. Relatório e contas do ano de 2022. Lisbon: Associação SOS Voz Amiga. <https://www.sosvozamiga.org>.

Associação Telefone da Amizade. 2023. Plano de atividades e orçamento para o ano de 2023. Porto: Associação Telefone da Amizade. <https://www.telefoneamizade.pt>

Associação Telefone da Amizade. 2024. Relatório de atividades e conta de gerência – Ano 2023. Porto: Associação Telefone da Amizade. <https://www.telefoneamizade.pt>

Coelho A, de Bienassis K, Klazinga N, Santo S, Frade P, Costa A, Gaspar T. Mental Health Patient-Reported Outcomes and Experiences Assessment in Portugal. *International Journal of Environmental Research and Public Health*. 2022; 19(18):11153. <https://doi.org/10.3390/ijerph191811153>

de Oliveira, Claire, Makeila Saka, Lauren Bone, and Rowena Jacobs. 2023. The Role of Mental Health on Workplace Productivity: A Critical Review of the Literature. *Applied Health Economics and Health Policy* 21(2): 167–193. Springer Nature. <https://doi.org/10.1007/s40258-022-00761-w>

Direção-Geral da Saúde. 2024. Plano Nacional de Saúde Mental 2020–2030. Lisbon: Ministério da Saúde. <https://saudemental.min-saude.pt/programa-nacional-para-a-saude-mental/>

Estatísticas da Saúde. 2022. Relatório Anual de Indicadores de Saúde Mental. Lisbon: Instituto Nacional de Estatística. <https://www.ine.pt/xurl?saude-mental-2022>.

European Observatory on Health Systems and Policies. 2023. Portugal: Country Health Profile 2023. Paris: OECD Publishing. https://www.oecd.org/en/publications/portugal-country-health-profile-2023_069af7b1-en.html.

Eurostat. 2022. Suicide Mortality Rates by Country. Eurostat Database. <https://ec.europa.eu/eurostat> (accessed 10 March 2025).

Governo de Portugal. 2024. Plano de Emergência e Transformação do SNS. Lisbon: Presidência do Conselho de Ministros. <https://www.portugal.gov.pt/download-ficheiros/plano-emergencia-sns.pdf>.

Guedes, Filipa. n.d. Desigualdades no Acesso aos Cuidados de Saúde Mental em Portugal. Lisbon: Universidade Nova de Lisboa. Unpublished manuscript.

Health Policy Partnership. 2023. Relatório de Indicadores de Depressão: Portugal. London: The Health Policy Partnership. https://www.healthpolicypartnership.com/wp-content/uploads/2023/11/HPP_Depression_Indicators_Portugal.pdf.

Herrman, Helen, Vikram Patel, Christian Kieling, Michael Berk, Claudia Buchweitz, Pim Cuijpers, et al. 2022. Time for United Action on Depression: A Lancet–World Psychiatric Association Commission. The Lancet. [https://doi.org/10.1016/S0140-6736\(21\)02141-3](https://doi.org/10.1016/S0140-6736(21)02141-3) PubMed.

INE – Instituto Nacional de Estatística. 2023. Estatísticas da Saúde: Indicadores de Saúde Mental em Portugal. Lisbon: INE. https://www.ine.pt/xurl?indicadores_saude_mental_2023 (accessed 10 March 2025).

INE – Instituto Nacional de Estatística. 2024. Consumo de Psicofármacos e Saúde Mental em Portugal. Lisbon: INE. https://www.ine.pt/xurl?psicofarmacos_2024 (accessed 10 March 2025).

INEM – Instituto Nacional de Emergência Médica. 2024. Implementação das Equipas de Resposta Comunitária em Saúde Mental. Lisbon: INEM. <https://www.inem.pt/wp-content/uploads/2024/02/Equipas-ERC-Saude-Mental.pdf>.

Ministério das Finanças. 2024. Nota Explicativa do Ministério da Saúde: Orçamento do Estado 2025. Lisbon: Ministério das Finanças. <https://app.parlamento.pt/webutils/docs/doc.pdf>.

Ministério do Planeamento. 2021. PRR – Plano de Recuperação e Resiliência: Recuperar Portugal, Construindo o Futuro. Lisbon: Ministério do Planeamento. <https://recuperarportugal.gov.pt>.

Nova SBE & Observatório da Despesa em Saúde. 2024. Relatório sobre o Acesso a Cuidados de Saúde em Portugal. Lisbon: Nova School of Business & Economics. https://www.novasbe.unl.pt/Portals/0/Files/Social%20Equity%20Initiative/2024/RELATORIO_ACESSO_CUIDADOS_SAUDE_dez_2024.pdf.

Observador. 2024. A saúde mental e a sociedade no futuro: efeito borboleta ou efeito dominó? Lisbon: Observador. <https://observador.pt/opinio/a-saude-mental-e-a-sociedade-no-futuro-efeito-borboleta-ou-efeito-domino/>

OECD and European Commission. 2024. Health at a Glance: Europe 2024: State of Health in the EU Cycle. Paris: OECD Publishing. <https://doi.org/10.1787/b3704e14-en>

OECD and European Union. 2020. Health at a Glance: Europe 2020: State of Health in the EU Cycle. Paris: OECD Publishing. <https://doi.org/10.1787/82129230-en>

Ordem dos Psicólogos Portugueses. 2024. Prevenir o suicídio é salvar vidas: Documento para o Dia Mundial da Prevenção do Suicídio. Lisbon: OPP. https://www.ordemdospsicologos.pt/ficheiros/documentos/opp_diamundialprevencaosuicidio_documento.pdf.

PlanAPP. 2024. Estudo sobre os Profissionais do SNS: Profissionais em Mudança. Lisbon: PlanAPP. https://www.planapp.gov.pt/wp-content/uploads/2024/03/PlanAPP_ProfissionaisSNS-2.pdf.

Ritchie, Hannah, and Max Roser. 2024. Mental Health. Our World in Data, Institute for Health Metrics and Evaluation. <https://ourworldindata.org/mental-health>.

Ross, Shilpa, Natasha Curry, and Nick Goodwin. 2011. Case Management: What It Is and How It Can Best Be Implemented. London: The King's Fund. https://assets.kingsfund.org.uk/f/256914/x/9374b758f1/case_management_2011.pdf

Santos, Carolina, and Pedro Pita Barros. 2024. Orçamento do Estado para a Saúde 2025. Lisbon: Observatório da Despesa em Saúde, Nova SBE. https://www.novasbe.unl.pt/Portals/0/Files/ODS/OE_Saude_2025.pdf.

University of Lisbon – Faculdade de Medicina. 2023. Plano de Estudos – Mestrado em Medicina. Lisbon: University of Lisbon. <https://www.medicina.ulisboa.pt/sites/default/files/cursos/planoestudos222301.pdf>.

WHO – World Health Organization. 2021. Suicide. Geneva: WHO. <https://www.who.int/news-room/fact-sheets/detail/suicide>.

WHO – World Health Organization. 2022. Mental Health: Strengthening Our Response. Geneva: WHO. <https://www.who.int/publications/i/item/WHO-Ref-Mental-Health-2022>.

Xavier, M., H. Barreto, M. C. Cruz, P. Domingos, J. Gago, T. Maia Correia, C. Marques, M. J. L. Marques, A. M. Pires, P. Morgado, M. Narigão, S. Pereira, J. Redondo, T. Santos, and F. Sena e Silva. 2024. A Reforma da Saúde Mental em Portugal: 3 anos de transformação. Lisboa: Coordenação Nacional das Políticas de Saúde Mental, Ministério da Saúde. <https://doi.org/10.34619/1n9a-yb44>.

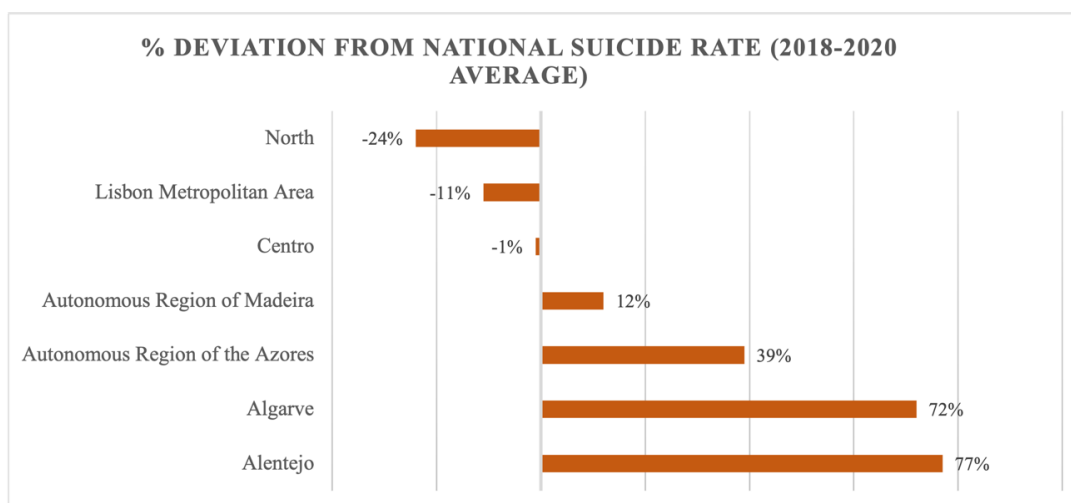
8. Appendix

Appendix I – Suicide Rate by Gender 2021

Gender	Women	Men	Total
Year	2021		
Austria	4.55	21.01	11.94
Belgium	8.09	21.34	14.34
Bulgaria	3.21	13.59	7.82
Croatia	5.6	24.82	14.06
Cyprus	1.98	3.47	2.68
Czechia	4.76	19.75	11.64
Denmark	5.11	14.09	9.46
Estonia	5.2	24.98	14.01
European Union - 27 countries	4.55	16.75	10.24
Finland	8.03	19.53	13.48
France	6.17	21.71	13.32
Germany	5.09	16.29	10.28
Greece	1.33	7.29	4.15
Hungary	6.51	27.52	15.69
Iceland	6.68	12.89	9.88
Ireland	3.64	15.15	9.31
Italy	2.5	9.73	5.89
Latvia	3.32	26.48	13.38
Lithuania	7.51	35.22	19.51
Luxembourg	3.15	9.43	6.12
Malta	3.88	9.09	6.59
Netherlands	6.36	15.04	10.57
Norway	6.52	17.74	12.11
Poland	3.32	22.07	12.15
Portugal	3.46	14.17	8.22
Romania	2.59	17.15	9.33
Serbia	5.61	20.93	12.56
Slovak Republic	2.36	13.64	7.5
Slovenia	8.26	33.29	19.81
Spain	3.92	12.53	7.93
Sweden	6.94	17.41	12.08
Switzerland	6.36	17.23	11.48
Turkey	2.27	8.44	5.25
United Kingdom	4.01	13.04	8.44

Appendix I – Suicide Rate by Gender 2021 (Source: OECD, 2024)

Appendix II – % deviation from National Suicide Rate (2018-2020 average)



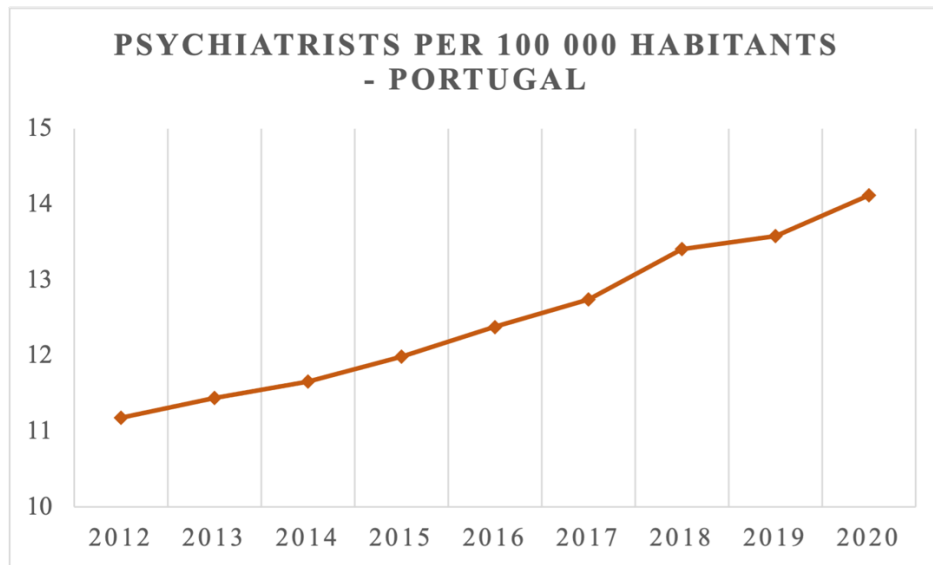
Appendix II – % deviation from National Suicide Rate (2018-2020 average) (Source: Eurostat Database)

Appendix III – Suicide Rate by Age Group 2021

Age class	15y - 19y	50y - 54y	from 85+
Year	2021		
Austria	5.49	12.11	46.07
Belgium	7.89	20.63	28.03
Bulgaria	2.21	9.87	28.71
Croatia	5.2	20.38	48.2
Czechia	6.06	16.66	26.98
Denmark	4.38	10.33	21.7
Estonia	12.22	11.53	33.2
European Union - 27 countries (from 2020)	4.37	13.86	24.91
Finland	9.32	20.75	19.83
France	3.81	20.45	32.38
Germany	4.29	13.01	36.83
Greece	0.56	4.84	7.73
Hungary	5.51	22.96	44.63
Iceland	8.86	4.61	-
Ireland	7.04	11.67	-
Italy	3.28	7.06	13.88
Latvia	3.27	16.36	25.08
Lithuania	8.57	25.99	32.51
Luxembourg	3.01	8.49	16.04
Malta	4.67	10.42	-
Netherlands	4.08	15.41	14.52
Norway	11.02	17.54	11.03
Poland	7.95	16.52	14.9
Portugal	2.26	10.81	25.32
Romania	4.06	13.34	14.77
Serbia	2.81	14.71	44.61
Slovakia	6.12	9.79	12.19
Slovenia	13.72	33.01	65.11
Spain	2.07	12.32	18.29
Sweden	5.48	16.22	22.21
Switzerland	6.64	14.47	26.92
Turkey	6.04	5.16	7.73

Appendix III – Suicide Rate by Age Group 2021 (Source: OECD, 2024)

Appendix IV – Psychiatrists per 100000 Habitants – Portugal



Appendix IV – Psychiatrists per 100 000 Habitants – Portugal (Source: Eurostat Database)

Appendix V – Semi-structured interview questions

Patient Flowchart

1. How is a patient at risk of suicide identified?
2. What are the next steps after identification?
3. What is the average response time for the first specific mental health consultation?
4. What are the criteria for referral to psychology/psychiatry or other mental health structures? Who is involved in this decision?
5. What are the internal protocols for monitoring patients at risk of suicide?
6. Is there contact with helplines or emergency services?
(e.g. SOS Voz Amiga, Voz de Apoio, 112, etc.)

Resources

7. Does the unit have psychologists or psychiatrists? How many?
8. What is their response capacity?
9. How is the referral process carried out and what is the average waiting time?
10. What is the role of the family physician (GP) in mental health management?
11. Does the health professional have specific training in managing cases of suicide?
12. Is there integration between the USF and hospitals/specialist centers?
13. How does this communication work?
14. Is the patient followed up after referral?

Medication and Costs

15. What are the main medications prescribed for Central Nervous System illnesses?
16. What is the percentage of prescriptions for psychotropic drugs vs. recommended non-pharmacological therapies?
17. Is there a system for monitoring side effects and adjusting treatments?
18. What is the average cost of follow-up, medication, and referral?

Proposals for Improvement and Optimization of Resources

19. In your opinion, what improvements could be made to the management of mental health resources in the SNS?
20. What would be the most urgent measures to optimize the response to mental health care in the SNS?
21. Are you aware of any international models that could be adopted to improve efficiency in the treatment of patients with mental illness in primary care?