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The burden of mental health, psychiatric resources and hospital funding schemes as factors in case complexity at community and national levels

SUMMARY OF THE DOCTORAL THESIS

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TABLE OF CONTENTS

INTRODUCTION

This research is based on an analysis of a major issue in contemporary healthcare systems, namely the insufficiently explored relationship between the burden of mental health, the allocation of psychiatric resources and the structure of hospital funding mechanisms, in the context of their impact on the complexity of the cases treated. In the specialist literature, although there are numerous studies on the costs of mental disorders and the efficiency of psychiatric services, there remains an analytical deficit regarding the integration of these dimensions into a systemic framework that captures the interdependencies between clinical, economic and institutional factors. Thus, the fundamental research question lies in identifying and explaining the structural mechanisms through which the organisation and funding of mental health systems shape the distribution of resources and the complexity of hospital activity.

The general hypothesis of the research is based on the premise that the institutional and financial structure of mental health systems exerts a significant influence on the distribution of psychiatric resources and on the complexity of cases treated in specialist hospitals. In particular, it is assumed that funding regimes generate distinct institutional patterns, identifiable through multivariate statistical methods, which determine systematic differences in the organisation of services and in the profile of clinical activity, independent of cyclical variations in the demand for medical services.

In line with this hypothesis, the overall objective of the thesis is to analyse the relationship between the burden of mental health, the allocation of psychiatric resources and hospital funding mechanisms, with a view to identifying structural patterns relevant to the formulation of public policy.

The doctoral research aims to achieve the following general objectives:

O.1. To identify and select relevant epidemiological and institutional indicators that reflect both the burden of mental health disorders and the capacity of health systems to provide adequate services.

O.2. To construct a comparative database for European Union member states, using harmonised indicators derived from official statistical sources.

O.3. Applying multivariate statistical methods, in particular principal component analysis (PCA), to identify the latent dimensions that characterise the structure of mental health systems at European level.

O.4. Identifying structural typologies of funding and organisational regimes for psychiatric hospitals, as well as assessing their stability over time, using multivariate classification methods applied to institutional administrative data.

O.5. Assessing the relationship between the structure of hospital funding and the complexity of cases treated, as well as comparing the influence of structural determinants with that of situational factors (e.g. the COVID-19 pandemic), using inferential statistical analysis models.

O.6. Interpreting the implications of the results for public policy in the field of mental health, with a focus on the role of the architecture of funding mechanisms, the optimisation of resource use, and the development of integrated strategies for the organisation of psychiatric services.

By achieving these objectives, the doctoral research contributes to a better understanding of the structural mechanisms influencing the organisation and performance of mental health systems and provides an empirical basis for formulating more effective public policies in the field of mental health.

The research methodology adopted is quantitative and interdisciplinary in nature, based on the use of multivariate statistical methods applied to institutional and statistical databases. Principal component analysis (PCA) is used to identify the latent structures of the phenomena under analysis, whilst cluster analysis techniques enable the classification of units of analysis into relevant structural typologies. Furthermore, the research integrates the analysis of financial, organisational and clinical indicators to assess the relationship between funding mechanisms and case complexity in psychiatric hospitals, thereby providing a systemic perspective on the interaction between economic and institutional factors within mental health systems.

This approach allows not only the identification of empirical patterns, but also the formulation of conclusions relevant to the optimisation of the organisation and funding of psychiatric services in a European context.

Chapter 1. Structural determinants and the economic burden of mental health disorders: theoretical and systemic perspectives

Chapter 1 of the thesis provides a theoretical and systemic foundation for the analysis of mental health, highlighting the decisive role of structural factors in shaping the economic

burden associated with mental disorders. The approach begins with the recognition that mental health is not merely a clinical issue, but also a major economic and social one, characterised by a multidimensional impact on individuals, health systems and national economies. The literature reveals that mental disorders generate both direct costs, associated with treatment and hospitalisation, and significant indirect costs, reflected in losses of productivity, disability and social exclusion, which amplifies the pressure on public resources and the sustainability of health systems.

The analysis highlights that the extent of the economic burden is determined by the complex interaction between clinical, economic and social factors, and is exacerbated by the high prevalence of mental disorders and their often chronic nature. In this context, physical comorbidities play a key role, contributing to increased medical costs and greater use of healthcare services. The studies cited in this chapter emphasise that patients with psychiatric conditions and associated somatic illnesses require more complex therapeutic interventions, longer periods of hospitalisation and greater coordination of medical services, leading to a significant increase in total expenditure.

A central element of the analysis is the decisive role of funding mechanisms in shaping the functioning of mental health systems. The chapter highlights that the funding structure of psychiatric hospitals is not merely an accounting framework, but an institutional factor influencing organisational behaviour, resource allocation and the strategic orientation of healthcare services. Differences in revenue composition, expenditure structure and workforce organisation generate distinct funding regimes, characterised by relative stability over time and the ability to shape patterns of clinical activity. These regimes reflect path-dependent processes and institutional constraints that limit the flexibility to adapt rapidly to changes in the external environment.

At the same time, the analysis highlights the importance of the social determinants of health in shaping both the prevalence of mental disorders and the costs associated with them. Factors such as socio-economic inequality, housing instability or limited access to education influence the risk of developing psychiatric conditions and contribute to increased pressure on healthcare services. Consequently, addressing mental health requires the integration of clinical, economic and social perspectives, as well as the development of integrated care models capable of responding to the complexity of patients' needs.

Chapter 2. The costs of hospitalisation and the effectiveness of mental health interventions: determinants, mechanisms and optimisation strategies

Chapter 2 of the thesis delves into the analysis of costs associated with mental health hospitalisation and the effectiveness of therapeutic interventions, highlighting the mechanisms through which various clinical, organisational and economic factors influence expenditure levels and the performance of care systems. The theoretical and empirical approach is based on the observation that mental health services, particularly inpatient services, represent one of the most costly components of healthcare systems, due to the complex and often chronic nature of the conditions treated, as well as the need for multidisciplinary and long-term interventions.

The analysis highlights the central role of physical comorbidities in amplifying the medical costs associated with mental disorders, with the specialist literature demonstrating that a significant proportion of psychiatric patients present with concurrent somatic conditions, leading to a substantial increase in the use of medical services. These cases involve additional investigations, complex treatments and longer periods of hospitalisation, contributing to an increase in the total costs of the healthcare system. At the same time, the distribution of psychiatric diagnoses has a varying impact on expenditure levels, with psychotic disorders consistently associated with the highest costs, whilst other categories of conditions, although less costly at an individual level, generate a significant cumulative economic burden due to their high prevalence.

Another key element addressed in this chapter is the mechanisms through which mental illnesses influence the structure of healthcare expenditure, highlighting the interdependencies between clinical severity, length of hospital stay, frequency of readmissions and intensity of resource use. Prolonged hospitalisations, necessary for patients with complex clinical profiles, represent one of the main cost drivers, whilst frequent readmissions reflect both limitations in the effectiveness of therapeutic interventions and deficiencies in the continuity of care outside the hospital setting. In this context, the effectiveness of interventions cannot be assessed solely in terms of immediate clinical outcomes, but must be analysed in relation to resource utilisation and the impact on long-term costs.

The chapter also highlights the importance of developing integrated, community-oriented care models as solutions for optimising costs and improving patient outcomes. Approaches that combine medical interventions with psychological and social support, such as collaborative care models or early intervention programmes, are highlighted as having the potential to reduce the need for repeated hospitalisations and to lower the costs associated with long-term treatment. At the same time, preventive strategies are recognised as essential tools for limiting the progression of conditions and reducing the pressure on hospital systems.

Chapter 3. Research hypothesis, aim and general objectives

Chapter 3 of the thesis plays a key role in the structure of the scientific approach by formulating the conceptual and operational framework of the research, namely by defining the hypotheses, the aim and the general objectives. This chapter bridges the gap between the theoretical analysis of the specialist literature and the foundation of the empirical investigation, providing coherence and direction to the entire study. In this context, the relationships between the analysed variables are clarified and the premises to be tested within the applied studies are established.

The general research hypothesis is based on the idea that mental health systems do not function as organisationally neutral entities, but are profoundly influenced by the institutional structure and the funding mechanisms that govern them. Specifically, it is assumed that these mechanisms determine both the distribution of psychiatric resources and the complexity of cases treated in specialist hospitals, generating distinct structural patterns across states and institutions. This hypothesis is complemented by secondary hypotheses concerning, on the one hand, the existence of latent dimensions of the mental health burden and resource allocation at European level, and on the other hand, the identification of distinct funding regimes that influence the profile of clinical activity and the level of case complexity.

The overall aim of the thesis is defined as the analysis of the relationship between the burden of mental health, the allocation of psychiatric resources and hospital funding regimes, with a view to identifying structural patterns relevant to understanding the functioning of mental health systems and to informing public policy. This aim reflects an integrative approach, which goes beyond the isolated analysis of variables and seeks to highlight the

interdependencies between the clinical, economic and institutional dimensions of the phenomenon under study. In line with the proposed aim, the general objectives of the research are structured to allow for the systematic investigation of the relationships between the analysed variables. A first objective aims to identify the main dimensions of the mental health burden and the distribution of psychiatric resources across European countries, using statistical methods capable of capturing latent structures. A second objective seeks to classify the health systems or units analysed into distinct typologies, based on the identified characteristics. A third objective focuses on analysing the funding regimes of psychiatric hospitals and how these are configured in practice. Finally, a central objective is to assess the relationship between these funding regimes and the complexity of the cases treated, with a view to highlighting the structural influence of economic mechanisms on clinical activity.

Chapter 4. General research methodology

Chapter 4 presents the methodological framework of the research, underpinning the analysis of the relationships between the burden of mental health, the allocation of psychiatric resources and hospital funding regimes. The approach is quantitative, based on the use of data from institutional sources and official databases, which allows for a comparative and systematic investigation of the phenomena analysed.

The study's conceptual framework integrates the research hypotheses and objectives into a coherent analytical framework, operationalised through epidemiological, institutional, financial and organisational indicators. The data used are aggregated and drawn from relevant sources at European and institutional level, and are integrated into a comprehensive database capable of capturing the multidimensional nature of the phenomenon.

The statistical analysis is based on multivariate panel data regression methods, in particular principal component analysis (PCA), used to identify latent dimensions, and cluster analysis (hierarchical and K-means), applied to classify units into structural typologies. Data processing is carried out using specialised statistical software, such as SPSS, and the results are interpreted in relation to the formulated hypotheses.

At the same time, the research adheres to ethical standards regarding data use, relying exclusively on aggregated and anonymised information. Overall, the methodology adopted ensures the scientific rigour of the analysis and allows for the identification of structural

relationships between the clinical, economic and institutional factors of mental health systems

Chapter 5. Study 1: Multivariate models of the mental health burden and the allocation of psychiatric resources in Europe: a principal component analysis

Chapter 5 presents the first empirical study of the thesis, focusing on the analysis of the relationship between the burden of mental health and the allocation of psychiatric resources in Europe, using principal component analysis (PCA). The aim of this study is to identify the latent dimensions that structure the distribution of epidemiological and institutional indicators, with a view to highlighting systemic patterns across European countries. The approach adopted allows for the reduction of data complexity and the identification of synthetic factors that reflect the interdependencies between the analysed variables.

The study utilises an extensive set of indicators relevant to the characterisation of mental health, including variables related to mortality associated with alcohol and drug use, suicide rates, hospital admissions for mental disorders, as well as indicators regarding psychiatric resources, such as the availability of medical staff and institutional capacity. The data are collected from official European sources and are integrated into a unified analytical framework, which allows for comparability between countries and the analysis of existing structural variations.

The application of principal component analysis led to the identification of significant latent dimensions, which summarise the information contained in the initial variables. The results highlight the existence of three principal components, which explain a substantial proportion of the total variation in the data. The first component reflects the institutionalised psychiatric burden, being associated with indicators such as hospital discharges and the density of psychiatric resources. The second component captures dimensions related to the functional structure of the health system and perceptions of health status, whilst the third component is correlated with suicidal vulnerability and addictive behaviours.

The interpretation of these components highlights the fact that the burden of mental health is not a one-dimensional phenomenon, but the result of the interaction between epidemiological, social and institutional factors. At the same time, the analysis reveals

significant differences between European countries regarding the configuration of these dimensions, suggesting that mental health systems are organised according to distinct structural models. These results confirm the hypothesis of the existence of latent patterns that can be identified through multivariate statistical methods and which reflect systemic variations in the distribution of resources and in the severity of mental health problems.

An important aspect highlighted by the study is the relative stability of the structure of the identified components, suggesting that these dimensions reflect structural characteristics of health systems rather than cyclical fluctuations. Furthermore, the results provide a solid basis for further analysis, including the classification of states into distinct typologies and the investigation of the relationship between these patterns and the health policies adopted.

The study demonstrates the usefulness of principal component analysis in investigating complex phenomena in the field of mental health, offering a synthetic perspective on the relationships between the burden of disease and resource allocation. By identifying relevant latent dimensions, the chapter contributes to understanding the structure of mental health systems in Europe and to informing comparative and public policy analyses

Chapter 6. Study 2: Mapping the structural patterns of mental health in Europe: towards an empirical taxonomy based on PCA

Chapter 6 extends the empirical analysis initiated in the previous study, with the main objective of mapping the structural patterns of mental health in Europe and developing an empirical taxonomy based on the results of principal component analysis (PCA). Whereas the previous chapter focused on identifying the latent dimensions of the phenomenon, this chapter is geared towards using these dimensions to classify European countries according to distinct structural profiles, thereby offering a comparative perspective on the organisation of mental health systems.

Methodologically, the study utilises the principal component scores obtained previously and uses them as synthetic variables in the analysis of structural patterns. This approach allows for the reduction of informational redundancy and the highlighting of essential relationships between the analysed indicators. By applying classification techniques and interpreting the distribution of scores at Member State level, homogeneous clusters are identified that reflect specific e configurations of psychosocial risks, institutional capacity and the use of psychiatric services.

The results highlight the existence of distinct typologies of mental health systems in Europe, each characterised by specific combinations of the dimensions identified through PCA. Some countries stand out due to high levels of psychosocial burden and hospital service use, suggesting increased pressure on institutional infrastructure, whilst others present a more balanced profile or one oriented towards community services and integrated care models. These differences reflect not only epidemiological variations, but also specific features of public policies, levels of economic development and the organisation of health systems.

A key contribution of this chapter lies in the development of an empirical taxonomy of mental health at the European level, which goes beyond traditional classifications based on administrative or geographical criteria. This taxonomy provides a useful analytical tool for understanding the diversity of mental health systems and for identifying recurring patterns of organisation and operation. At the same time, it allows the differences between countries to be contextualised in relation to the identified structural dimensions, facilitating the interpretation of the results in terms of policies and intervention strategies.

The chapter also highlights the implications of these patterns for the development of public policies in the field of mental health. Identifying groups of countries with similar characteristics allows for the formulation of tailored recommendations, adapted to the specific features of each structural model, and highlights the need for flexible approaches that take into account the institutional and socio-economic context. In this regard, the analysis contributes to the development of more effective strategies for resource allocation and the organisation of psychiatric services.

Chapter 6 demonstrates the usefulness of combining dimensionality reduction methods with classification techniques for investigating complex phenomena in the field of mental health. By developing an empirical taxonomy and highlighting existing structural patterns in Europe, the study offers an integrative perspective on how the interaction between epidemiological and institutional factors shapes the functioning of mental health systems.

Chapter 7. Study 3: Funding regimes and case complexity in psychiatric hospitals following the pandemic shock – perspectives from a European regional health system

Chapter 7 presents the third empirical study of the thesis, focusing on the analysis of the relationship between funding regimes for psychiatric hospitals and the complexity of the cases treated, in the context of the changes brought about by the COVID-19 pandemic. This study addresses a central question in the debate on post-pandemic health policy: whether variation in hospital performance is primarily driven by exogenous shocks or by structural funding architectures that shape institutional behaviour over time. Focusing on psychiatric hospitals within a unified national health insurance system, the analysis separates the effects of time from structural configurations in explaining the complexity of the case mix.

Empirical evidence consistently indicates that psychiatric hospitals do not function as homogeneous entities that react uniformly to crisis conditions. Instead, they form distinct funding-organisation regimes, defined by specific combinations of revenue composition, expenditure allocation, workforce structure and operational pressure. These regimes are not temporally contingent: although descriptive tests suggest compositional stability, a stricter validation (ARI and centroid analysis) shows that structural persistence coexists with moderate reconfiguration across periods. This implies that the regimes are not ‘created by the pandemic’, nor are they completely invariant.

In the multivariate analysis, structural funding characteristics emerge as the main factors driving the complexity of the case mix. In contrast, the timing of the pandemic does not retain robust explanatory power once these structural factors are controlled for. This finding supports a structure-based interpretation of hospital behaviour, in which the funding architecture exerts a more enduring influence than temporary crisis-related disruptions.

This study contributes to the literature by promoting a typology-based analytical framework that integrates multivariate grouping with outcome modelling. Applied to a longitudinal administrative dataset from a Central and Eastern European context, this approach provides new empirical evidence in a field largely dominated by studies of Western European and OECD systems. The results highlight that, even with s and within a formally unified funding system, institutional heterogeneity remains structured and analytically significant.

From a policy perspective, the findings suggest that the design of structural incentives is a more effective lever than short-term crisis interventions. The funding architecture (through revenue composition, expenditure allocation and contractual design) shapes hospital behaviour in a persistent manner. Consequently, reform efforts should focus less on episodic adjustments and more on the underlying configuration of incentives that govern institutional performance.

Overall, the analysis suggests that the complexity of the case mix in psychiatric hospitals is structurally embedded in differentiated funding regimes that persist across temporal disruptions, whilst allowing for adaptive reconfiguration. By highlighting the funding architecture as a central explanatory dimension, this study contributes to a more nuanced understanding of the resilience of the healthcare system, emphasising the interaction between structural continuity and institutional adaptation.

GENERAL CONCLUSIONS

The main objective of this doctoral thesis was to analyse the relationship between the burden of mental health, the allocation of psychiatric resources and hospital funding regimes, as well as how these dimensions influence the complexity of cases treated in psychiatric institutions. The research was based on an interdisciplinary approach integrating perspectives from the fields of medicine, health economics and applied statistics, and was conceptually grounded in institutional theory and the literature on the resilience of health systems. Using multivariate statistical methods, the thesis sought to identify the structural patterns governing the organisation and functioning of mental health systems. The structure of the thesis, which includes a conceptual review of the literature and two complementary empirical studies, enabled the investigation of the phenomenon at both the macro level (European countries) and the institutional level (psychiatric hospitals).

The first objective of the research was to identify the main dimensions of the mental health burden and the distribution of psychiatric resources in Europe. Principal component analysis applied to epidemiological and institutional indicators revealed the existence of robust latent structures that organise the distribution of psychosocial risks and the institutional capacity of mental health systems. The results show that indicators associated with the of alcohol- and drug-related mortality, suicide rates and hospital admissions for mental disorders contribute significantly to the configuration of the latent dimensions of the

mental health burden. In parallel, indicators regarding institutional capacity and the use of healthcare services reflect differentiated patterns of resource allocation, suggesting the existence of distinct structural configurations across European countries. Cluster analysis enabled the identification of typologies of mental health systems, highlighting their structural heterogeneity. Some countries are characterised by a high burden of mental disorders and intensive use of hospital services, whilst others exhibit models oriented towards community-based services or integrated forms of care. These typologies reflect not only differences in resource levels, but above all variations in the institutional architecture of health systems, confirming that the organisation of psychiatric services is the result of the interaction between epidemiological, economic and institutional factors.

The second objective of the research was to analyse the funding regimes of psychiatric hospitals and to assess the relationship between the funding structure and the complexity of the cases treated. The empirical results demonstrate that psychiatric hospitals can be grouped into distinct structural regimes, defined by coherent configurations of revenue composition, expenditure structure, human resource organisation and operational pressure. These regimes reflect forms of institutional path dependence and resource allocation logics that tend to persist over time, rather than cyclical adjustments driven by short-term variations in demand for healthcare services.

A key finding of the research is that variations in the complexity of cases treated are predominantly explained by these structural configurations of funding. Inferential analysis shows that variables associated with the composition of funding and the structure of expenditure exert systematic and robust effects on the case complexity index, whilst cyclical factors, including the pandemic period, do not retain statistical significance in the presence of structural determinants.

In this context, the results support an interpretation based on the theory of health system resilience, according to which institutions can absorb external shocks without fundamentally altering their structure. The funding regimes identified prove to be stable over time, indicating that institutional performance and the complexity of clinical activity are shaped by persistent structural mechanisms, anchored in rules, incentives and organisational routines. The results obtained confirm the general research hypothesis, according to which the institutional and financial structure of mental health systems influences both the distribution of psychiatric resources and the complexity of cases treated in psychiatric hospitals. Furthermore, the analysis highlights the need for a systemic approach to the evaluation of mental health services, in which clinical, economic and institutional factors are

considered interdependent. From a public policy perspective, the research findings suggest that the evaluation and reform of mental health systems cannot be based solely on the total level of funding or on clinical performance indicators. The configuration of funding mechanisms and the structure of institutional incentives play a decisive role in shaping organisational behaviour and system outcomes. Consequently, effective policies must address not only resource allocation but also the institutional architecture of funding, with a view to optimising resource use and increasing service efficiency.

This research contributes to the development of the specialist literature by integrating a structural perspective on the relationship between funding, organisation and the complexity of psychiatric services. By combining macro- and micro-level analyses and using advanced statistical methods, the thesis provides a coherent analytical framework for understanding how economic and institutional factors shape the functioning of mental health systems, highlighting the central role of funding regimes in determining institutional performance.

ORIGINAL CONTRIBUTIONS AND FUTURE RESEARCH DIRECTIONS

The original contributions of this doctoral thesis lie primarily in the applied aspect of the research and focus on the development of innovative analytical frameworks and the application of advanced statistical methods to understand the structure of mental health systems. These contributions can be summarised as follows:

1. *The development of an integrated analytical framework for investigating the relationship between the burden of mental health, the allocation of psychiatric resources and hospital funding mechanisms*, enabling a systemic analysis of the interdependencies between clinical, economic and institutional dimensions.
2. *Identifying structural funding patterns in psychiatric hospitals* using multivariate classification methods, highlighting the existence of stable and non-random institutional configurations.
3. *Highlighting the relationship between the funding structure and the complexity of the cases treated*, demonstrating that the funding mix influences the clinical profile of hospital activity.

4. *Demonstrating that structural funding regimes are the dominant determinant of the complexity of cases treated*, outweighing the influence of circumstantial factors, including the pandemic shock.
5. *Identifying latent structures in mental health at European level* through the application of principal component analysis, highlighting the multidimensional nature of the phenomenon.
6. *The operationalisation of factor scores as a robust tool for international comparative analysis*, enabling consistent classifications and structural interpretations.
7. *The development of an empirical taxonomy of mental health systems in the European Union*, based on clustering techniques, which enables operational classifications for public policy.
8. *Integrating factor analysis and clustering into a coherent methodological framework applied to mental health*.
9. *Integrating perspectives from health economics, applied statistics and institutional theory into an interdisciplinary approach*.
10. *Establishing implications for differentiated public policies*, based on the identified structural patterns.
11. *Highlighting the multidimensional and non-linear nature of the relationship between resources, workload and outcomes*.
12. *Empirical validation of the robustness of the identified typologies* through the combined use of multivariate analysis techniques and inferential statistical tests, a contribution that strengthens the consistency of the results and reduces the risk of arbitrary interpretations.
13. *Extending the analysis of mental health systems beyond descriptive approaches* by integrating a comparative and structural perspective that allows differences between states and institutions to be explained by institutional mechanisms rather than merely by variations in indicator levels.

Although the results provide relevant insights into the organisation of mental health systems, the research has certain limitations that must be taken into account when interpreting the findings. The empirical analysis is based on data from institutional and statistical databases harmonised at European level; however, these may incorporate methodological differences between countries regarding the collection, reporting and classification of indicators, which may affect the direct comparability of the results. At the same time, the variables used only partially capture the complexity of the phenomena

analysed, particularly with regard to the social, cultural and behavioural dimensions of mental health, which are difficult to quantify using standardised statistical indicators.

Furthermore, the cross-sectional nature of the analysis limits the ability to capture the dynamics of mental health systems over time and to assess the evolution of identified patterns in the context of economic, institutional or demographic changes. Similarly, analysis conducted at an aggregate level (national or institutional) may mask significant internal heterogeneities, particularly in the case of decentralised health systems, where regional or local differences may be relevant to the interpretation of results. Furthermore, in the study on funding schemes and case complexity, the availability of data at the institutional level may limit the granularity of the analysis, and the indicators used to measure complexity (such as the CMI) may reflect not only clinical severity but also practices

Future research directions include *extending the analyses to a longitudinal perspective, which allows for the assessment of how the relationships between the burden of mental health, the allocation of psychiatric resources, and the structure of funding mechanisms evolve over time*.

A separate line of research aims *to integrate additional indicators relating to community mental health services*, in order to capture more fully the interaction between inpatient care and the community support infrastructure. Furthermore, evaluating the economic and clinical efficiency of pilot trusts encompassing both inpatient and outpatient psychiatric services, as well as community services (currently fragmented), where the patient pathway is unified and integrated, constitutes a future research direction. At the same time, this would offer realistic and evidence-based perspectives for the redesign of national mental health services.

Another area of research involves *the use of advanced econometric methods aimed at identifying causal relationships between funding mechanisms, institutional performance and the complexity of the cases treated*.

At the same time, future studies could continue *to evaluate the multidimensional (economic, clinical, social, etc.) effectiveness of targeted diagnosis and treatment programmes*. Although such analyses have been presented in the specialist literature reviewed in this thesis, further research is needed to draw much more clearly defined conclusions.

At the same time, future research will focus on *analysing the impact of health system reforms and public policies on the evolution of institutional frameworks for psychiatric*

services, with an emphasis on how changes to the funding framework and the organisation of healthcare services influence the structure and functioning of psychiatric institutions.

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