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**IMPACT OF PUBLIC-PRIVATE PARTNERSHIP
ON
THE HEALTH BUDGET PROGRAM
IN
PORTUGAL
(2010-2020)**

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The responsibility for any mistakes is mine.

ABBREVIATIONS

BOO	Build, Operate and Own
BOT	Build, Operate and Transfer
BOOT	Build, Operate, Own and Transfer
DBFO	Design, Build, Finance, and Operate
DBFOM	Design, Build, Finance, Operate and Maintain
CApEX	Capital Expenditure
COVID 19	Coronavirus Disease
EBRI	European Bank for Reconstruction and Development
ECA	European Court of Auditors
EDCTP	European & Developing Countries Clinical Trials Partnership
EIB	European Investment Bank
EIF	European Investment Fund
EPEC	European Expertise PPP Centre
EU	European Union
GDP	Gross Domestic Product
HMA	Hospital Managing Agents
ICU	Intensive Care Unit
IMI	Innovative Medicines Initiatives
IMF	International Monetary Fund
NHS	National Health System
NPM	New Public Management
OECD	Organization for Economic Co-operation and Development
OGE	State Budget
OPEX	Operational Expenditure
PCC	Public Contracts Code
PoE	Panel of Expert
PPP	Public-Private Partnership/Parcerias Públicas Privadas
R&I	Research and Innovation
SNS	Portuguese National Health System
UTAO	Unidade Técnica de Apoio Orçamental
VfM	Value for Money

ABSTRACT

Public-Private Partnerships (PPP) have emerged as a model that allows the State to increase efficiency in its resource's application. The option for a PPP is based on the principle that the private sector is more efficient in the management of its resources, compared to the public sector. Based on the defined object of study for this research, focused on the impact of Public-Private Partnerships on the health budget program in Portugal (2010-2020), we start off with a literature review on the new concept of governance, known as New Public Management, a paradigm that has redefined the tasks and functions of the State, paving the way for the emergence of PPPs.

Resorting to the historical element, we will pinpoint the 90s of the 20th century as the beginning of PPPs, a privileged financing model for road infrastructure at first, expanding later to collective equipment, with particular emphasis on hospitals, replacing public intervention in the health sector.

However, the reinforcement of the private initiative contribution would be contradicted by the Basic Health Law (2019) and by Decree-Law no. 23/2020, of May 27, which departs from the regime that was in force since 2002, limiting private intervention to a "supplementary and temporary nature" and only when there is a "justified need". The economic and financial research will show that the PPP experience in the Portuguese health sector has generated savings for the State and guaranteed the desired quality at the lowest possible cost, i.e., with a higher VfM. Specifically, we will see how the hospital units which have operated under PPPs contracts have asserted themselves as potentially beneficial investment tools for the State.

Keywords: Public-Private Partnership, Portugal, Health, efficiency, budget.

RESUMO

As Parcerias Público-Privadas (PPP) surgiram como um modelo que permite ao Estado aumentar a eficiência na aplicação dos recursos públicos. A opção por uma PPP assenta na premissa de que o setor privado é mais eficiente na gestão dos seus recursos, em comparação com o setor público. A partir do objeto de estudo definido para esta investigação, centrado no impacto das Parcerias Público-Privadas no programa orçamental de saúde em Portugal (2010-2020), inicia-se uma revisão de literatura sobre a nova conceção de governação, designada por *New Public Management*, paradigma que veio redefinir as tarefas e funções do Estado, abrindo caminho para o aparecimento das PPP.

Recorrendo ao elemento histórico, situaremos a década de 90 do século XX, como o início das PPP, um modelo de financiamento privilegiado de estruturas rodoviárias num primeiro momento, expandindo-se mais tarde, aos equipamentos coletivos com particular destaque para os hospitais e substituindo a intervenção pública na área da saúde. Porém, o reforço da contribuição da iniciativa privada, será contrariada pelo Lei de Bases da Saúde (2019) e pelo Decreto-Lei n.º 23/2020, de 27 de maio, que se afasta do regime que vigorava desde 2002, limitando a intervenção dos privados a um "caráter supletivo e temporário" e apenas quando haja uma "necessidade fundamentada". Os dados económicos e financeiros, irão permitir demonstrar que a experiência das PPP no sector da Saúde em Portugal, geraram poupanças para o Estado, e garantiram a qualidade desejada ao menor custo possível, isto é, com maior VfM. Em concreto, veremos como as unidades hospitalares que operaram através de PPP, se afirmaram como ferramentas de investimento potencialmente benéficas para o Estado.

Palavras-Chave: Parcerias-Público Privadas, Portugal, Saúde, eficiência, orçamento.

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1 – Introduction and Basic Fundamentals of Public-Private Partnerships

Introduction

Since the 1990s, the participation of the private sector in the provision of public services in Portugal and has become popular worldwide through Public-Private Partnership agreements, originally called Private Finance Initiative (PFI), a model that began in the United Kingdom, where, in the 1980s, the New Public Management (NPM), a new governance paradigm that redefines administrative functions and tasks, also emerged¹. The term “partnership” has been approached from a variety of perspectives: like an outsourcing, a “contracting-out” (Johnston and Romzek, 2005), “NGO-government alliances” (Brinkerhoff & Brinkerhoff, 2002), and “community-local government cooperation” (Krishna, 2003; World Bank, 2005). In their opinion “the multiplicity of arguments, some based on empirical study and others promoting partnership based on normative agendas, making it difficult to sort the rhetoric from the reality (Brinkerhoff, 2002b; Wettenhall, 2003)”².

The term public-private partnership (“PPP”) is not defined at European level. “In general, the term refers to forms of cooperation between public authorities and the world of business which aim to ensure the funding, construction, renovation, management or maintenance of an infrastructure or the provision of a service”³. In fact, the PPPs can be designed to achieve a wide range of objectives in various sectors, such as transport, social housing, and health, structured according to different approaches. What is important is that the clauses in the agreement enshrine the government's service delivery objectives, which must be aligned with the private partner's profit objectives. “The effectiveness of the alignment depends on sufficient and appropriate risk transfer to the private partners”⁴. Throughout this study on the “Impact of Public-Private Partnerships on the Health Budget Program in Portugal (2010-2020)”, we will seek to assess the advantages of PPPs for users, namely regarding the superior quality of healthcare provided, but like Cruz & Sarmiento argues “Esta introdução do setor privado naquilo que tradicionalmente pertencia à esfera do público não significa que o Estado não mantenha a responsabilidade pelo pagamento destes serviços”⁵. The aim is to analyze the allocation of resources from

¹ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 107.

² BRINKERHOFF, Derick & BRINKERHOFF, Jennifer (2011), p. 3. Accessed on 27th of June 2021.

³ EUROPEAN COMMISSION. COM(2004) 327 final, p. 3. Accessed on 21st of March 2021.

⁴ OECD (2012). p. 18. Accessed on 21st of March 2021.

⁵ CRUZ, Carlos; SARMENTO, Joaquim (2019), “the entrance of the private sector into what traditionally belonged to the public sphere, only mean that the State is not more responsible for all phases of the process, but still retains

the general state budget (GSB) in the health sector and the efficiency of the private sector in the management and provision of health care. To better frame the subject, we proceeded to a reading review of economic theories and policy guidelines around public management, presented generically, but with an impact on the health sector.

1.1. Reading Review

The new approach to public management - New Public Management (NPM), seems to be linked to, the reduction of public expenditure (Dunsire and Hood 1983); the privatisation and quasi-privatisation and abandonment of central government institutions (Hood and Schuppert 1988; Dunleavy 1989); the development of automation of the production and distribution of public services; and the development of a more international agenda focused on public management issues⁶. Kalimullah, N.; Alam, K.; Nour, M., refers to NPM's as a strong critique of state bureaucracy, as an organizing principle within public administration, in advocacy of small but better government, focused on decentralization and empowerment and customer satisfaction. It promotes a mechanism for public accountability and institutional development with the capacity to ensure the efficiency and effectiveness of public services⁷.

Stephen Osborne (2010) in: *The new public governance: Emerging perspectives on the theory and practice of public governance*, presents us the key points regarding a NPM like the lessons from private sector management and in business leadership within public service organisations. It references performance monitoring, management, and auditing, with a focus on cost management. The author notes the growth in the use of markets, competition and contracts for resource allocation and service delivery within public services in the Anglo-American and Australian/New Zealand regions⁸. Like Cruz & Sarmiento (2019) clarified, we are not in the presence of a reduction of state functions, but rather the strengthening of its role, focusing on its "core functions"⁹ in the light of the NPM model. Also, according to the authors, there is a separation between policymaking (steering) and the functions of service provision (rowing), which remain in the public sphere, but also in the hands of the private sector, with increased competition, which will require more transparency and accountability (creation of output and performance

responsibility for paying for these services. Which in practice means that the State ceases to own all phases pf the project." (in free translation).

⁶ HOOD, C. (1991), p. 3. Accessed on 27th of June 2021.

⁷ KALIMULLAH, N.; ALAM, K.; NOUR, A. (2012), p.3. Accessed on 27th of June 2021, p.3.

⁸ OSBORNE, S. P. (Ed.), (2010), p.3, 4. Accessed on 27th of June 2021,

⁹ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 107.

indicators in the public sector)¹⁰. For Sandra Firmino (2015), in her doctoral thesis entitled: "Public-Private Partnerships in Portugal: Accountability, Models and Underlying Motivations", argues that "The exercise of accountability is essential for the democratic process, since it translates into accountability on the part of those who exercise power, accompanied by the respective accountability for their actions. This means the possibility of sanction for non-compliance with obligations and duties"¹¹.

The concept of governance as hierarchy corresponds to the traditional model of Public Administration, which gives way to the concept of governance as market, associated with the development of New Public Management, a model that has guided the reformist measures adopted by the countries of the Organization for Economic Cooperation and Development (OECD) since the late 1970s. Hood (1991) in Sandra Firmino (2015) point to the existence of four major international trends: "(a) a tentativa de abrandar ou reverter o crescimento do setor público em termos de despesa pública e funcionários; (b) a procura de privatização ou quasi-privatização dos serviços prestados anteriormente pelo Estado; (c) o desenvolvimento das tecnologias de informação e a sua aplicação à produção e à distribuição dos serviços públicos; (d) a colocação do tema da gestão pública e das políticas na agenda internacional e a promoção de cooperação intergovernamental"¹².

According to Cruz & Sarmiento (2019), the main emphasis should be on the evaluation of the results. The State must ensure "that they are guaranteed in the desired quality at the lowest possible cost, i.e., with higher VfM"¹³. Also refers that, while analyzing the incentives offered to private parties, "it may be desirable in terms of efficiency, to replace the interventionist state by a regulatory state!"¹⁴(...) "The transformation of the economic paradigm makes evident a new model of governance not only unconditional of the reconfiguration of the role of the state and the increased contribution of private agents to public governance, but manifestly prone to the assimilation of the values and practices of New Public Management"¹⁵.

¹⁰ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 108.

¹¹ FIRMINO, Sandra (2015), p. 7. Accessed on 27th of June 2021.

¹² *Idem*, p. 33. Accessed on 27th of June 2021. (in free translation: (a) the attempt to slow or reverse the growth of the public sector in terms of public expenditure and employees; (b) the pursuit of privatisation or quasi-privatisation of services previously provided by the state; (c) the development of information technology and its application to the production and distribution of public services; (d) the placing of the issue of public management and policy on the international agenda and the promotion of intergovernmental cooperation.).

¹³ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 108.

¹⁴ *Idem. Ibidem*.

¹⁵ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 108, 109

Fakhrul Islam (2015), argues in favour of economic efficiency of the market and less state intervention in the economy. He argues that economic theorists argued that state intervention was an economic problem because it restricted economic growth and to that extent, they understood that less government would improve aggregate welfare by improving economic efficiency. Instead of state bureaucracy, markets offer freedom of choice (Friedman and Friedman,1980). In their opinion “Several theories have provided the theoretical underpinnings of NPM and have helped shape NPM ideas, in particular public choice theory, principal/agent theory and transaction cost theory (Walsh, 1995; Boston et al.,1996)”¹⁶.

Throughout the reading review we saw that NPM results from international dynamics. Tiago Correia (2015) notes that, “one cannot deny the influence of certain political orientations (take for example the case of Thatcher and then Major in England), or relatively common situations of fiscal pressure on countries.”¹⁷. Cruz & Sarmento (2019) present two key arguments for the use of a PPP, based on the idea that the supply of services by private parties is superior to public provision, while also being mindful that citizens are increasingly demanding of the services provided by the state, especially in health. The first argument argues that PPPs are the best form of government contracting or outsourcing, as they generate even greater efficiency savings and Vfm. Another argument, argued by Savas (2000) starts from the belief that, through a PPP, the private parties "help governments in capital spending on infrastructure, especially in phases of budget constraints"¹⁸.

There are various types of Public-Private Partnerships (PPPs). And they are created for different reasons, “across a wide range of market segments, reflecting the different needs of governments for infrastructure services. Although the types vary, two broad categories of PPPs can be identified: the institutionalized kind that refers to all forms of joint ventures between public and private stakeholders; and contractual PPPs”¹⁹.

The purpose of a PPPs is to finance, “designing, implementing, and operating public sector facilities and services. Their key characteristics include: (a) Long-term (sometimes up to 30 years) service provisions; (b) The transfer of risk to the private

¹⁶ ISLAM, F. (2015), p. 143. Accessed on 27th of June 2021.

¹⁷ CORREIA, Tiago (2011). Revista da Associação Portuguesa de Sociologia online, n.º 2-abril. Accessed on 27th of June 2021.

¹⁸ SAVAS (2000) in CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 109.

¹⁹ UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE (2008), p. 14. Accessed on 21st of March 2021.

sector; and (c) Different forms of long-term contracts drawn up between legal entities and public authorities”²⁰. However, the main objective of a Public-Private Partnerships (PPPs), according to the public sector, should be the Value for Money (VfM) and the efficiency of the use of public resources. While the term PPP has been in use since the 1990s, there is no single European model of a PPP. The European PPP Report 2009²¹ states that “the range of structures used for PPPs varies widely: in some countries, the concept of a PPP equates only to a concession where the services provided under the concession are paid for by the public”²². In others, PPPs can include every type of outsourcing and joint venture between the public and private sectors”. As a result, the recorded number of PPP projects may vary considerably across data sources²³.

In the last 20/30 years they have been replacing part of the traditional public investment by PPP models, as it is understood that this new paradigm of investment offers benefits, widely presented in the European PPP Report 2009²⁴. This recognition is reflected in a study by the European Investment Bank (EIB), presented by Kappler & Nemoz (2010), which indicates that in 2009 there were over 1500 PPPs in Europe, with an accumulated investment of 250 billion euros. According to these authors, during 1990-2009, the UK accounts for some two thirds of all European PPP projects. With 10% of the total number of projects, Spain remains the second-biggest PPP market; and it has gained slightly in importance in recent years. France, Germany, Italy, and Portugal all represent 2-5% of the total number of projects, respectively. The UK, Portugal, France, Germany, Spain, and Italy together account for some 92% of all European PPPs by number. Overall, this suggests that the PPP market in Europe continues to slowly diversify across countries²⁵.

In terms of the macroeconomic importance of PPPs, we would like to highlight for the moment that in all countries PPP investment flows represent less than one percent of GDP, according to Kappler & Nemoz (2010, p.16). In a study by the European Investment Bank (EIB), the authors indicate that PPPs have macroeconomic relevance only in Greece, Portugal, the United Kingdom and, to some extent, Spain and Ireland.

²⁰ UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE (2008), p. 14. Accessed on 21st of March 2021.

²¹ EPCE (2009). Accessed in February 2021.

²² Concession-based financing of infrastructure is common in the UK, France, Italy, and Spain, in KAPPELER, A. and NEMOZ, M. (2010), p. 3,4. Accessed on 27th of June 2021.

²³ KAPPELER, A.; NEMOZ, M. (2010), p. 3,4. Accessed in February 2021.

²⁴ EPCE (2009), p. 5. Accessed in February 2021.

²⁵ KAPPELER, Andreas; NEMOZ, Mathieu (2010), p. 8. Accessed in February 2021.

They note that Greece is characterized by a small number of large PPP projects. The countries with the largest increase in PPPs relative to GDP 2004-2009 were Ireland, Spain, the UK and, in relative terms, France, Germany and Italy²⁶.

1.2. The Basic Fundamentals of Public-Private Partnerships

In the introduction we note that PPPs can take a wide variety of formats, depending on how the private sector is integrated into the project with the State. These contracts differ, for example, as to the ratio of public-private financing that will be delivered to the project, as well as the risks shared between the two counterparties. In fact, traditionally the State/Public sector is charged with providing a range of services to its own citizens such as health, education, infra-structure, security, and emergency services. This is due to, what in economic theory is explained as “market flaws”/the flaws in the market²⁷. The omission of private participation in these sectors is mostly explained by the low profitability of these sectors. However, that same low profitability that is present in most of the previously mentioned sectors operated by the State itself is compensated by the benefits that are generated to the whole society, and thus their expenses are considered justified. Highways, for example, can reduce the time required to travel between locations as well as traffic accidents. Easier transportation between regions also aids economic development. Additionally, the fact that these same sectors can be dominated by a small number of companies or even monopolies might justify their domain by someone who has a higher degree of accountability before the society, such as the State. It is feared that, if completely dominated by private companies, part of the society would be excluded of access to basic services due to their lower purchasing/economic power.

The economic power disparity between the State and the private sector also comes to play when discussing any form of investment. Due to their usually smaller size, private run companies do not have the resources or the economic justification to invest in riskier and longer projects in comparison to the resource abundant public sector.

1.2.1. Definition of Public-Private Partnerships

According to the Organization for Economic Co-operation and Development (OECD), “Public-Private Partnerships (PPPs) are long term contractual arrangements

²⁶KAPPELER, Andreas; NEMOZ, Mathieu (2010), p. 16. Accessed on 1st of February 2021.

²⁷ CRUZ, Carlos; SARMENTO, Joaquim (2019) p. 41.

between the government and a private partner whereby the latter delivers and funds public services using a capital asset, sharing the associated risks”.²⁸ Sarmiento and Renneboog (2017) notes: "o setor privado desempenha um papel no desenvolvimento e manutenção de infraestruturas e serviços públicos, que tradicionalmente era da responsabilidade do setor público"²⁹, and Cruz & Sarmiento (2019) underline: “a PPP é uma forma de contratação pública que se situa entre a contratação tradicional e a privatização”³⁰.

1.2.2. Public Contracts versus Public-Private Partnerships

In the more traditional, pure public contract (in contrast to our case study the PPP's) the State assumes all costs related to the project, these same expenses being financed mainly through taxes and public debt. This method usually proves to be costly in the initial phase (taken into consideration all the investment necessary from day one) while usually guaranteeing lower costs of maintenance and upkeep (these costs, however, increase due to random depreciation or necessary upgrades)

1.3. The Regulatory Contexts of Public-Private Partnerships in Portugal

The first legal recognition of the PPP's came with the Decree-Law No. 86/2003, of 26 April, regarding the special rules applied to the partnerships between public and private sector. This Decree-Law was revoked by the *Decree-Law No. 111/2012*, May 23. With the approval of the Public Contracts Code the legal frame applied to the PPP has seen some developments, although still not totally describing all the internal proceedings present in the public sector, in both preparation and development phases of the projects, as well as during the execution and observation parts of the contract. Regarding this matter it is important to remind that the decree mentioned in the first paragraph, 111/2012, May 23, was updated in both 2019 and 2020 to protect public financial interests, especially regarding the improvement of the preparation procedures related to the executions of the PPP contracts.

As a result of the challenges faced over the years, the government undertook to regulate the signing of public-private partnerships (PPPs) in the health sector and, at the

²⁸ OECD (2012), p. 18. Accessed on 21st of March 2021.

²⁹ SARMENTO, Joaquim; RENNEBOOG, Luc (2017). «Anatomia das Parcerias Público Privadas: A sua criação, financiamento e renegociações», p. 3, (in a free translation: “the private sector has a role in the developing and maintenance of infrastructure and public services, tasks that traditionally was the responsibility of the public sector”). Accessed in January 21, 2021.

³⁰ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 41, (in a free translation: PPP is a type of public contracting that stands between the traditional public contract privatization).

same time, to legislate on the public management of SNS establishments, which culminated in the publication of Decree-Law No. 23/2020 of 22 May 2020. Until then, Decree Law no. 185/2002, of 20 August, now revoked, gave more space to private entities, establishing the possibility of entering partnerships for granting the management of care units to private entities and allowing joint investment between these entities and the State.

The Health Basic Law approved by Law No. 95/2019 of 4 September, and the Decree Law No. 23/2020, published on 22 May, which revokes the Decree-Law No. 185/2002 of 20 August, and regulates the participation of PPP in the health sector, by establishing the rules for the celebration of management partnership contracts in the health sector, on a supplementary and temporary basis, in cases of justified need, and defines the terms of management of SNS establishments, when these are based on the execution of these same contracts»

Nowadays the discussion of the public-private partnerships in the health sector is being revived due to the current effects of the COVID-19 pandemic, which still claims many victims daily, and places a lot of pressure on the national health services of all affected countries. As usual in themes connected to policy there are opposing views on the use of PPP's by the State, including in the health services. Due to the severity of the ongoing health crisis, it is important to review all existing data present in international and European studies regarding the cases of success and failure of the of PPP's, and which reasons led to those results. In overall, both public and private sectors are mobilized into PPP projects, the main objective being to lessen the burden on the State's resources, particularly in the initial, investment-intensive phases while still providing the services and resources needed to satisfy the population's needs.

Since the 1990's it is estimated that the European Union has financed close to 336 thousand million euros in public-private partnership programs. According to the dedicated report presented by the European Court of Auditors in 2018, it has been observed that a smaller amount of EU financing was used in PPP projects that was initially expected, despite the efforts of the European Commission (presided by Jean-Claude Juncker).

1.4. Theoretical Review of Public-Private Partnerships in Health Sector

Several studies have been performed regarding PPP development in health sector. Jorge Simões et al (2020), presents in the article «The 2019 Health Basic Law in Portugal:

Political arguments from the left and right» in which he describes the stakeholders in the Portuguese health system, as follows:

“The State, which acts simultaneously as regulator and manager of the health system and as provider and funder of the universal National Health Service (NHS); the social sector (non-profit sector), which has a relevant role particularly in providing long-term care; and the private sector, which has an important role in providing certain types of care, such as diagnostic exams, outpatient consultations and inpatient care [1]. Since the Portuguese NHS was established in 1979, the roles of the public, social and private sectors have changed, both in their definition and in the relationships established among them.”³¹

The studies we have consulted allows us to observe that PPPs have been widely criticised, although, at the same time, some authors defend the model of partnerships, as a way of offering new social responses and transforming many of the existing ones, in a joint and articulated action between the State and the private sector. Jorge Simões et al (2020), mentions that there is a complementary role of the private sector, and that collaboration is extending “a number of services provided by the private and social sectors including diagnostic exams, rehabilitation and long-term care, for example. However, the fact that public hospitals could be managed by private groups always created profound division between left-wing parties (Left Bloc and Communist Party) and all the other political parties”³². Carlos Cruz and Rui Cunha Marques (2013) note in the article «Integrating Infrastructure and Clinical Management in PPPs for Health Care» that:

“The factors affecting health care system management are constantly evolving. Changing disease patterns, aging populations, growing public expectations, and increasingly more stringent standards continually provide new and demanding challenges to managers and policy makers (Thompson and McKee 2004). At the same time, governments are struggling to decrease public expenditures and reduce excessive public debts, as is true for many European countries.”³³

In this article, the authors illustrate how the private sector has become involved in the provision of public health infrastructure around the world. PPPs were signed for the construction and maintenance of hospitals and in some cases with the provision of ancillary services. Their also mentioned that Portugal and Spain had developed a new model which involving clinical management³⁴. Carlos Cruz and Joaquim Marques realize that there was a global trend for governments to reduce their direct involvement in

³¹ SIMÕES J, et al (2020), p. 1. Accessed in June 21, 2021.

³² SIMÕES J, et al (2020), p.2. Accessed on 2nd of June 2021.

³³ CRUZ, Carlos; MARQUES, Joaquim (2013), p. 471 Accessed on 25th of June.

³⁴ *Idem*, p. 472.

healthcare “resulting in increased private sector participation in system management and financing”³⁵. Carlos Cruz and Joaquim Sarmiento (2019), present four structural forces of change contributed to increase the healthcare costs, trend that will continue or perhaps worsen in the future³⁶.

1.5. Methodology, Hypothesis and Study Structured

The study’s primary objective: what is the impact of PPPs on the health budget program in Portugal? Secondary objective: what are the determining factors for the public policy option in favor of PPPs in health care. Additionally, what are the causal gains for the public coffers and for users compared to the service provided by the public sector. The methodology applied to the research focuses on quantitative analysis (economic and financial indicators) as well as on the health budget allocations between 2010 and 2020. Regarding the dependent variable: *the impact of Public-Private Partnerships on the health budget program in Portugal*, several indicators that integrate the independent variable will be created, namely: risk; cost/benefit; economic and financial impact on the State Budget; public-private collaboration. The methodology also includes a reading review of the new public management; a brief legal framework based on Portuguese legislation in the Health Sector, and a qualitative data, including a literature review and document analysis on PPPs in the health sector in Portugal. Throughout the research we will use knowledge from several different fields, but this study will be predominantly focused on the Economic viewpoint.

By reference to the various indicators, the following hypotheses will be studied: Hypothesis 1 – taken the associated risks into account, it is important to measure whether the distribution between the State as public partner and the private parties, provides the appropriated return in terms of efficiency.

Hypothesis 2 - based on a cost-benefit analysis, we will assess if the growing expenses with the maintenance of PPPs in the health area are still justifiable when faced with the expected benefits for the State.

³⁵ CRUZ, Carlos; MARQUES, Joaquim (2013), p. 471 Accessed on 25th of June 2021.

³⁶ *Idem*, “Há 4 forças estruturais na mudança no setor da Saúde: envelhecimento populacional; exigências crescentes dos utentes; novas tecnologias; maior ênfase na saúde preventiva, em detrimento da curativa.” p. 861.

Hypothesis 3 - regarding the economic and financial impact factor of the health expenditure, it is important to analyze whether the public coffers can withstand the increasingly significant impact on the OGE.

Hypothesis 4 - regarding the degree of innovation and know-how of private partners operating in the health sector, they surpass the efficiency and quality offered by the public sector in relation to the national health service.

Hypothesis 5 - regarding public-private collaboration, it is important to know if it is dictated either by insufficient investment in the public sector, or because it translates into a positive economic and financial return for the state. To this extent, the measurement of the performance of the private sector will be analyzed considering efficiency, effectiveness, and quality.

The research will proceed to the collection and analysis of economic, financial, and statistical data: 1. Introduction, reading review and the methodology adopted; 2. Structure, contracts and sharing of responsibilities and risks; 3. Analysis of the economical and finance indicators, hypotheses theoretical systemization and result's discussion; 4. Conclusions, results, and suggestions for future research.

2 – Structure, Contracts and Sharing of Responsibilities and Risks

Introduction

The structuring of a PPP involves the analysis of its typology; the specific objectives from the maximization of the VfM; competition; contract integrity; contractual balance; activity and sustainability and contract management, a subject that will be expanded with the support of Cruz & Sarmiento (2019)³⁷. Afterwards, we shall proceed to analyze the phases and life cycle of a PPP, it's design processes, and the contract procedures and execution methods attending to the responsibilities of all partners within a PPP.

2.1. Types of PPP

Cruz & Sarmiento referring to Public Administration theory, “classifies PPPs into two major types: contractual type PPP and institutional type PPP.”³⁸. While in the first case the partnership is centered on the contract established between the parties, the latter

³⁷ CRUZ, Carlos; SARMENTO, Joaquim (2019), p.119-121.

³⁸ *Idem*, p. 109.

one, the partnership of institutional type, “implies the creation of an entity jointly owned by the public partner and the private partner, who associate themselves as co-promoters of the project, being, obviously co-responsible for all the risks that affect this entity.”³⁹.

In a contractual PPP, the private partner is responsible for the design, financing, execution, operation and maintenance of the health service. The contractual type of PPP is the most common in the health sector, where the private partner is responsible for carrying out the management and infrastructure on behalf of the State, receiving payment in return from the public administration, depending on the contract.

In institutional-type PPPs, “the joint entity is responsible for ensuring the delivery of a work or the provision of a service for the benefit of the public”⁴⁰. Defending a similar perspective, Hart (2003, cited by Hope et al, 2013), states that in a PPP, “the private contractor has strong incentives to make investments, since they reduce the operating costs that he will have to incur in the operating stage. In contrast, under traditional procurement, the builder has no incentives to invest in cutting the operating costs, since another private party will have to bear these costs”⁴¹.

The Green Paper of the Commission of the European Communities (2004) states that direct cooperation between the public partner and the private partner “enables the public partner to retain a relatively high degree of control over the conduct of operations, which it can adapt over time as required by the circumstances, through its presence among the shareholders and in the decision-making bodies of the joint entity. It also allows the public partner to develop its own experience of operating the service in question, with the support of a private partner”⁴².

2.2. Objectives and Phases of a PPP

In previous sections we observed that PPPs have been widely criticized, but we also see those same authors such as Jorge Simões et al, defend the model of partnerships, as a way of offering new social responses and transforming many of PPP in articulated action between the State and the private sector, like a complementary role of the private sector. That collaboration is extending to a long-term care, diagnostic exams and rehabilitation, for example, a several services that could be provided by the private sector.

³⁹ CRUZ, Carlos; SARMENTO, Joaquim (2019), p.109.

⁴⁰ *Idem. Ibidem.*

⁴¹ HOPPE, E., KUSTERER, D., SHIMITZ, P (2013), p.2. Accessed on 25th of August 2021.

⁴²EUROPEAN COMMISSION (2004), p. 19. Accessed on 25th of August 2021.

We need to define the macro and the specific objectives of PPPs, namely Berger and Hwakesworth (2011) ⁴³ argues that we need to *maximize the VfM*; Liu et al (2014) note that “The rationale for public procurement is based on the premise that the market, or rather competition in near-perfect markets, stimulates innovation and efficiency and thereby creates value for the public sector in purchasing these services”⁴⁴. Le et al. (2014) note that the competition depends of the *Contract Integrity*, a process transparent and equitable, and “all potential stakeholders treated equally”⁴⁵.

Meda (2007) advocates a *Contractual balance* (responsibilities, obligations, and the risk structure)⁴⁶ Also important for both partners is *Attractiveness and sustainability* and also an *Effective contract management*⁴⁷.

2.3. Phases and Life Cycle of a PPP

The structure of a PPP project consists of 3 phases: design/assembly (6 to 12 months during which the object is defined; the sustainability analysis and the risks associated with the PPP); contractualization (the proposal that best responds to the project promoter is selected and takes 6 to 12 months); and execution, which takes place over 30 to 40 years. It is the phase that begins after the contract is signed.

2.4. Contracting through PPP and Contract Execution

There are differences between contracting through the PPP format and traditional contracting, as can be seen in Table I.

⁴³ BURGER and HAWKESWORTH (2011), cited in Cruz & Sarmiento (2019), p. 119.

⁴⁴ LIU et al (2014), cited in CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 119.

⁴⁵ LE et al (2014), cited in CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 119.

⁴⁶ MEDA (2007), cited in CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 120.

⁴⁷ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 120, 121.

Table I
Public Provision versus Public-Private Partnerships

Characteristics	Traditional Contract	PPP Contract
Project responsibility	The government is responsible for all stages of the project, although it may turn to the private sector for construction and/or design services	The government is responsible for planning and defining the costs and results of the project, and usually also for payments. The rest is the responsibility of the private sector.
Risk	The risk is entirely (or almost entirely) supported by the public sector.	The private sector is solely responsible for the construction costs of the assets, under a construction contract.
Costs	The private sector is solely responsible for the construction costs of the assets, under a construction contract.	The private sector is responsible for the total cost (CApEX and OpEX) over the life of the project.
Treatment in the State Budget	Operating and capital expenditures are public expenditures, affecting the public deficit and debt.	No impact on the budget during the investment phase (PPPs aren't included the state's balance sheet). Only payments, during the operational phase, are public expenditures (intermediate consumption).
Financing	Investment is financed through the public budget (i.e. taxes or public debt).	The investment is financed by the private sector, through equity and debt (usually through a banking syndicate).
Contract	There is only a construction contract between the government and a private company.	There is a concession contract, for several years (usually 30 or more), specifying the conditions of design, construction, financing, operation, payments, and residual/transfer value.
Asset Ownership	The asset is owned by the State.	The assets are State-owned or revert to public domain at the end of the contract.

Source: adapted from Cruz and Sarmiento (2019, p.48).

Cruz & Sarmiento (2019) emphasize that, while in the traditional model all the technical requirements of the materials, instruments, and equipment to be contracted must be described in the specifications⁴⁸, in PPP contracting, and taking health services as an example, the public sector defines the desired services, waiting for the private sector to submit a proposal with the indications for their provision. Using the construction of a hospital infrastructure as an example, when conceived in the PPP contracting modality, the State can determine the level of quality of the infrastructure. In this case, the “State focuses on the objectives (outputs and outcomes) and on the quality of the service and not on operational management aspects (inputs) related to how such infrastructure and

⁴⁸ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 141.

services are operated.”⁴⁹ Hope et al. (2013) compares traditional contracting versus the use of PPPs and observed that,

"A key feature of public-private partnerships is that two tasks of building a facility and subsequent operation are bundled together and delegated to a single private contractor, whereas under traditional procurement, separate contractors are responsible for these two tasks. An argument often made in favor of public-private partnerships is that when the same private contractor is responsible for the construction as well as the operation of a public facility, then he will be inclined to invest more during the construction phase in order to reduce the costs incurred in the subsequent operation phase."⁵⁰

2.5. Sharing Responsibilities and Risks between Private and Public Partners

Public-Private Partnerships involve the transfer and sharing of responsibilities and financial risks between public and private partners. In this regard, Monteiro (2005) states that,

“The success of a PPP crucially depends on the sharing of risk between private and public partners. In this context, it is worth bearing in mind that PPPs are principal-agent relationships. An efficient PPP requires a set of incentive mechanisms to induce the agent (the private partner) to exert the adequate level of effort in order to maximise the objective function of the principal (the public partner). So, it is crucial how project goals are presented and measured and how the performance of private partners is rewarded (or punished).”⁵¹

The legislative changes show that over the years a greater equity in risk sharing has been demanded, with the private sector assuming part of the risks that in the past were borne by the state. The scarce resources of the public sector have determined this, and at the same time have demanded an improvement in public service provision.

The responsibilities and roles of public and private partners are distinguished according to the stages of the process. In the design/assembly phase, the public partner is more active, fixing the object of the PPP and finalizing the bidding procedures. In the contracting phase, the responsibility of the private partner is to develop the studies to prepare the bid. Finally, in the execution phase the private partner performs the service in accordance with the contract, while the public partner is being responsible for the control of PPP⁵².

⁴⁹ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 142.

⁵⁰ HOPPE, E., KUSTERER, D., SHIMITZ, P. (2013), p.2. Accessed on 25th of August 2021.

⁵¹ MONTEIRO, R. S. (2005), p.77. Accessed on 25th of August 2021.

⁵² CRUZ, Carlos; SARMENTO, Joaquim (2019). p. 134, 135.

Any deviation from what was agreed can lead to the financial unsustainability of private companies. Good management of cashflows determines the success of PPPs.

Cooperation between the state and the private sector can take on various PPP models, as summarized in Table II. There we can see the most common models with emphasis on the division of responsibilities in each phase of the PPP. Hammami et al. (2006) states that "we have so far focused on finding the determinants of PPPs. However, it is equally important to understand the motivations for the different types of PPP contractual arrangements"⁵³.

Table II
Analysis of the most common PPP/concession models

Model PPP	Project	Construction	Financing	Assets	Operation	Residual Value
BOT	Public	Private	Public	Public	Private	Private
DBFO	Private	Private	Private	Public	Private	Public
BOOT	Public	Private	Public	Private	Private	Private
DBFOM	Private	Private	Private	Public	Private	Public
BOO	Public	Private	Public	Private	Private	Public

Source: adapted from Cruz and Sarmiento (2019, p.58)⁵⁴

PPPs are generally referred as an appropriate instrument to mitigate the problem of market failures, an alternative instrument for policies aimed at promoting economic efficiency and competitiveness and an instrument for accumulating public resources. According to Cruz& Sarmiento (2019) the central objective of a PPP is the creation of Value for Money (VfM) for the public sector, allowing the state to increase social policy actions⁵⁵.

2.5.1 Portuguese Health PPP Models

The first use of PPP by the Portuguese State to expand its healthcare network started in 2001 and since then it has expanded throughout several years onwards. Initially it was planned the construction and management of 11 hospital units under the PPP contracts, but only 4 projects were approved: Braga, Cascais Vila Franca de Xira and

⁵³ HAMMAMI, M.; RUHASHYANKIKO, J. YEHOUE, E. (2006), p. 8. Accessed on 25th of August 2021.

⁵⁴ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 58.

⁵⁵ *Idem*, p. 176.

Loures⁵⁶. The last one was the only hospital built from scratch under a PPP. All these contracts were, as mentioned in previous sections, of the institutional type, involving both the State and its private counterparty. It was agreed that the private partner would oversee the construction, maintenance, and infra-structure management for about 30 years, while the resource allocation and management of the health unit lasted 10 years. When comparing with the several concession models in Table 2. it is easy to draw similarities with the BOO model, where the States oversees both planning and financing of the whole project, as well as seeing the hospital turn to public domain at the end of the period, everything else falling under the private's responsibility. The States financing of these PPP hospitals are treated in a similar fashion to the financing of public-controlled hospitals. This is justified by the fact that both types of hospital fill the same purpose – providing the local population with healthcare services - while both being integrated in the SNS.

2.5.2. *Concept of VfM*

Cruz & Sarmiento (2019) defines VfM⁵⁷ as “uma medida da utilidade do dinheiro gasto (...) é diretamente proporcional à utilidade e inversamente proporcional ao custo (...) baseia-se não no menor custo de aquisição/produção, mas sim na máxima eficiência dos gastos públicos, isto é, ponderando custo e qualidade. Isto significa que, quando se opta por realizar um investimento público através de uma PPP procura-se maximizar a utilidade dos dinheiros públicos”⁵⁸. In short, the VfM is calculated by comparing the net present value (NPV) of payments to the PPP is less than the NPV in the public sector purchaser, i.e., the PPP is compared to the traditional contracting model.

Cruz & Sarmiento (2019) has been argued that the provision of services by private parties is superior to public provision. The authors consider that PPPs are the best form of government contracting or outsourcing, that they can generate greater efficiency savings. Another argument in favor of PPPs, is advocated by Savas (2000) and starts from

⁵⁶ COURT OF AUDITORS (2021). Summary Report, Public-Private Hospital Partnerships in SNS, p. 9. Accessed on 27th July 2021.

⁵⁷ “a measure of the utility of the money spent (...) is directly proportional to the money used and inversely proportional to the cost (...) is based not on the lowest cost of acquisition/production, but on the maximum efficiency of public spending, i.e., weighting cost and quality. This means that when one chooses to make a public investment through a PPP one seeks to maximize the utility of public money” Cruz & Sarmiento (2019), p. 177, 178 (in a free translation).

⁵⁸ CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 171.

the understanding that, by using a PPP, the participating private parties “help governments in capital spending on infrastructure, especially in times of budget constraints”⁵⁹.

2.5.3 Valuation of VfM in a PPP in the Health Sector

The Budgetary Framework Law, Law nr. 91/2001, of August 20th, updated by Law nr. 48/2004, of August 24th, established restrictions to the State budget, in the sense that only from the analysis of VfM (a solution that gained wide acceptance in the United Kingdom) could it be decided which contract form proved more advantageous to the Public Authority, in this case either the PPP or the classic public financing⁶⁰. In this regard, the Green Paper on Public-Private Partnerships and Community Law on Public Contracts and Concessions states that, in order for public-private cooperation to be able to deliver microeconomic benefits that allow a project to be carried out at the best value for money while preserving public interest objectives, recourse to PPPs can in no way be presented as a miracle solution for the public sector faced with budgetary constraints (...) for each project, it must be assessed whether the partnership option presents a real added value compared to other options, such as the conclusion of more traditional contracts.⁶¹

At present moment, the number of beneficiaries and the volume of activity of ADSE shows how much the SNS has not been able to provide universal and general care to the population, despite the increase in public spending in recent years. According to Pordata⁶², “in 2016, Portugal was the 8th country with the highest percentage of direct household expenditure (27.8%) and the 11th country with the highest percentage of expenditure on voluntary private insurance (5.9%) of the highest among countries with SNS.”. In the report presented by Finance Minister Mário Centeno in 2019⁶³, it is noted that “The total effective consolidated expenditure of the Health Program planned for 2020 is 11,225.6 million euros, which corresponds to an increase of 4.9% (524.9 million euros) compared to the execution of the expenditure estimated for the year 2019. Relative to the initial budget financed by tax revenues, the 2020 budget increases by 941 million euros (10.4%) compared to the initial 2019 budget. In terms of State Budget appropriations,

⁵⁹ SAVAS (2000) in CRUZ, Carlos; SARMENTO, Joaquim (2019), p. 109.

⁶⁰ Law No. 41/2014, of 10 July 2014. Budgetary Framework Law.

⁶¹ EUROPEAN COMMISSION (2004). COM(2004) 327 final, p. 4. Accessed on 25th of August 2021.

⁶² PORDATA (2019), Questionário Conjunto às Despesas em Saúde.

⁶³ FINANCE MINISTRY. State Budget (2020), December 2019 report, p. 176-189. Accessed on 27th of June 2021.

there is an average annual growth of 3.5% in the period 2015-2019, reversing the previous downward trend (-1.8% on average between 2010 and 2015).”

In the same document, we can observe that the improvement in the healthcare services provided by the SNS has occurred, however, in parallel with the accumulation of a set of pressures on the demand side as a result of demographic and epidemiological changes, of a more informed and demanding society, and of increasing costs resulting from the rising price of production factors and from technological innovation. It is therefore imperative to strengthen the response capacity of the SNS to the increasing volume and complexity of demand for health care. To this end, Mário Centeno announced the budget reinforcement and the improvement of expenditure efficiency, measures that were framed within a broader set of initiatives focused on improving the supply and quality of services provided in the SNS, focused on users.

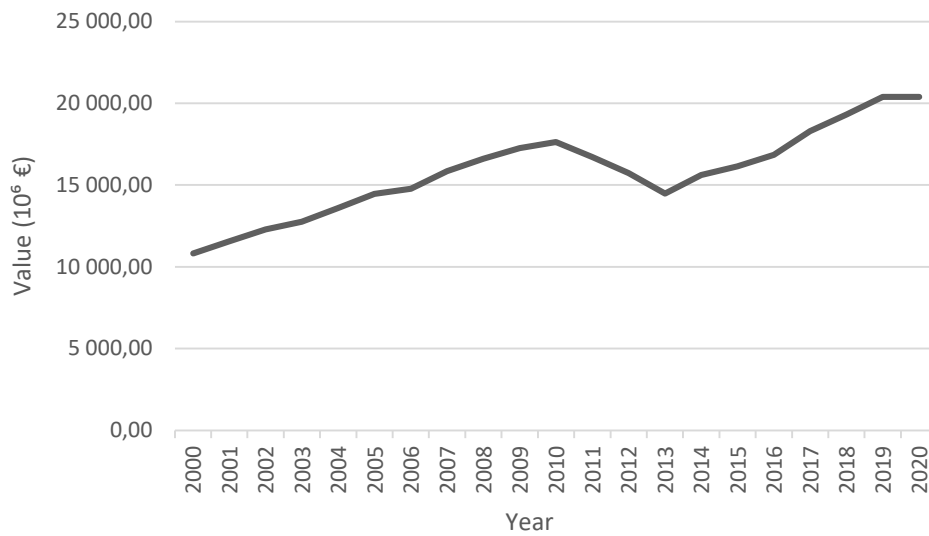
3 – Analysis of the Economical and Finance Indicators, Hypotheses Theoretical Systemization and Result’s Discussion

Introduction

During this section we shall analyse the evolution of several macroeconomic indicators from the data gathered in the yearly financial and economic data. We will start to look at the general financial upkeep of the health sector in Portugal between 2010 and 2020, considering the events and reasons that could justify its evolution as time passed. Afterwards, we shall compare the previous data with the evolution of the State’s expenditure with the public-private partnerships in the health sector, and the overall available data considering its yearly output. In this section we also compare the research’s consequent results with the series of hypothesis that we presented early on, on section 1, and present our first premises.

3.1. Health Sector: macroeconomic analysis

In the following graphic we can observe the evolution of Portugal’s expenditure in its health sector between 2010 and 2020:



Graph 1 - Health's Yearly Current Expenditure between 2010 and 2020

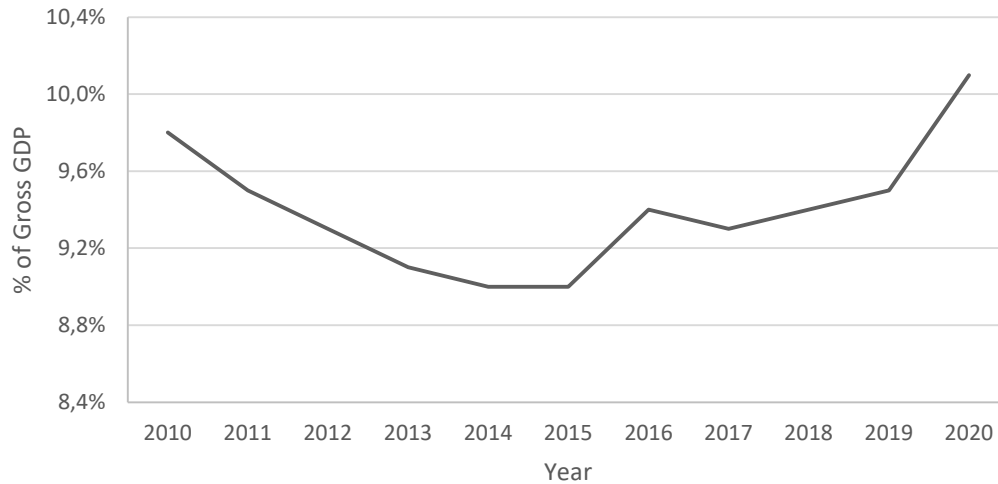
Source: Statistics Portugal. Conta Satélite da Saúde⁶⁴

Since 1999 that the nominal public expenses in the health sector have been steadily increasing. Between 2010 and 2020, (the period currently targeted by the article) we can notice that there was a significant decrease in public spending. This was the direct result of the 2008-2011 economic crisis, which forced the Portuguese government to decrease its public spending overall. The expenditure resumed its increase from 2013 onwards and is continually increasing to the present date.

When comparing the increase in current health expenditure percent of GDP in 2020, through the information present in Graph.2, we can observe the sharp rise of public expenditure, rising above the 10% mark for the first time in many years.

⁶⁴ STATISTICS PORTUGAL. Conta Satélite da Saúde 2000-2020Pe. Accessed on 21st July 2021.

This increase is primarily explained by the decrease in GDP during that year, due to the COVID-19 pandemic's negative effects in the economy and the overall increase in human and medical resources needed to deal with it.⁶⁵

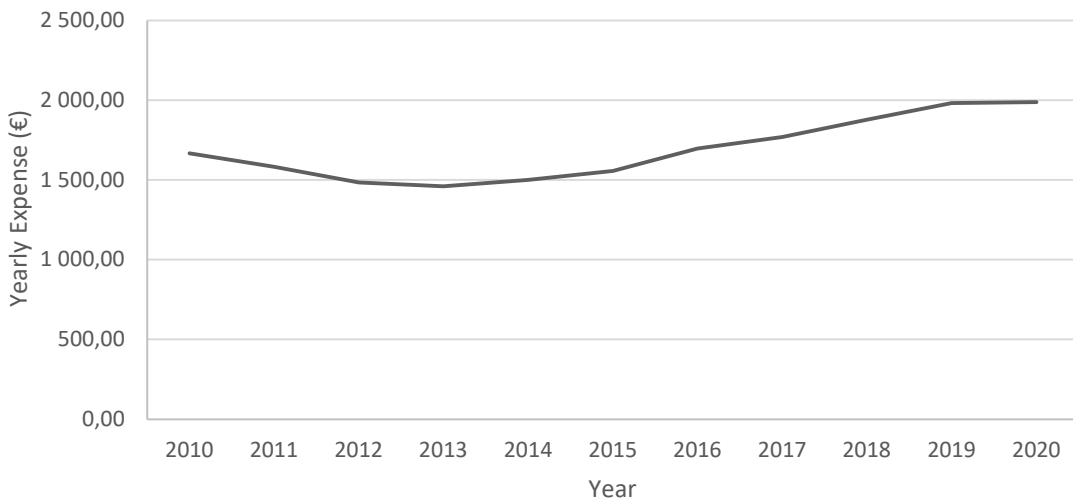


Graph 2 – Percentage of Gross Domestic Product spent on the health sector

Source: Statistics Portugal. Conta Satélite da Saúde

The data provided to us in Graph 3. shows us that the overall increase in national spending in healthcare services has been mirrored by the evolution of the amount of resources spent per capita. When the government started cutting costs due to the 2008-2011 economic crisis the amount of resources spent in each citizen also registered a significant reduction.

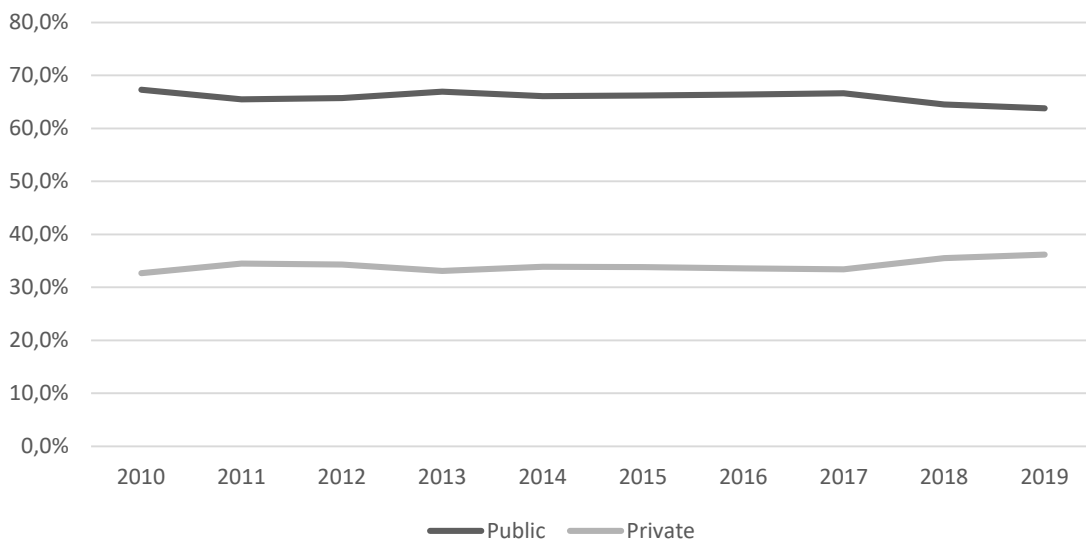
⁶⁵ STATISTICS PORTUGAL. Conta Satélite da Saúde 2000-2020Pe. Accessed on 21st July 2021.



Graph 3 – Current Expenditure Per Capita (2010 – 2020)

Source: Statistics Portugal. Conta Satélite da Saúde

When considering the total expenditure spent in the healthcare services, we should consider the origin of these resources, should they be provided by either private or public origin. While studying the previously mentioned data we can observe the evolution of the share by both private and public agents in the Portuguese healthcare system as time passed by, more specifically at Graph 4. and Table III.



Graph 4- Share of Public and Private Healthcare Expenditure (%)

Source: Statistics Portugal. Conta Satélite da Saúde

Table III
Share of Public and Private Healthcare Expenditure between 2010-2020

Year	Public (%)	Private (%)
2010	67,3%	32,7%
2011	65,5%	34,5%
2012	65,7%	34,3%
2013	66,9%	33,1%
2014	66,1%	33,9%
2015	66,2%	33,8%
2016	66,4%	33,6%
2017	66,6%	33,4%
2018	64,5%	35,5%
2019	63,8%	36,2%
2020	67,6%	32,4%

Source: Statistic Portugal: Conta Satélite da Saúde

It is possible to observe that, during the period between 2010 and 2020, most of the healthcare services financing came from the State. The ratio kept relatively unaltered, suffering a slight deviation in 2020 due to the Covid-19 pandemic. In this last year (considering the data currently available) the public hospitals and related infrastructure held the brunt against the pandemic. In order to cope with the sudden increase of covid-19 patient's public hospitals had to hire more health professionals and acquire more medical resources. As a result, a huge investment was made in the public healthcare sector and the public share of the total expenditure represented more than two thirds of the entire health expenditure during that year (it should be noted that, despite these extraordinary increases in public expenditure, there are considerable expenses that have not been registered in the data, such as the purchase of ventilators for ICU patients, which could inflate even more the costs that the pandemic caused to public coffers). At the same time, a considerable decline in non-urgent appointments in the same year helps to explain the decrease in private consumption.

3.2. Public-Private Partnerships: analysis

By aggregating the available and reliable data regarding the Public-Private Partnerships which operated in the Portuguese Health sector we can observe the following results:

Table IV
Private and PPP total expenditure between 2015 and 2019

Year	Public (%)	Private (%)	PPP (%)	Total Y.P.E*	Total PPP Expenditure
2015	66,2%	33,8%	20,3%	5 948 408 000 €	1 207 526 824 €
2016	66,4%	33,6%	20,3%	6 167 342 000 €	1 251 970 426 €
2017	66,6%	33,4%	20,1%	6 502 775 000 €	1 307 057 775 €
2018	64,5%	35,5%	19,4%	6 923 978 000 €	1 343 251 732 €
2019	63,8%	36,2%	16,8%	7 390 734 000 €	1 241 643 312 €

Public-Private Partnership total expenditure and share between 2015 and 2021

Source: Statistic Portugal: Conta Satélite da Saúde

*Yearly Private Expenditure

Between 2008 and 2010 four PPP contracts were signed, primarily focused on the private management of State-owned hospitals, these being: Cascais, Braga, Vila Franca de Xira and Loures hospitals⁶⁶. These were four key health units operating under a PPP scheme of a grand total of 230 hospitals, by 2019 records. We can observe in Table II. that the share of expenses by the Public-Private partnerships remained relatively constant until the period of 2015-2019. This percentage remained around the 20% mark, representing a significant amount of the total expenditure in the private sector. In 2019 there was a sudden drop, partly influenced by the termination of the PPP contract of one of the 4 hospitals operating under this scheme, (Braga Hospital, this being transferred to public administration) and the extra costs (in both private and public spheres) born from the need to cope with the Covid-19 pandemic.

3.2.1 Quality Control

When analyzing the financial impact of public organizations being managed under private agents (such as the ones currently being studied in this document) we should take

⁶⁶ STATISTICS PORTUGAL. Conta Satélite da Saúde 2000-2020Pe. Accessed on 21st July 2021.

into consideration the sideline transactions that happen due to quality control irregularities and/or misinterpretation of the contracts signed between the State and the private counterparty (these resulting in legal actions against one or the other).

The official audit, discussed in previous paragraphs, has concluded that the four hospitals under private management have undergone a series of quality control checks and international certification processes which aren't always required from those medical facilities under public administration. These range from quality management systems, infection control procedures, proper medical discharge planning, to the implementation of both patient and medical personnel satisfaction review systems. As such, whenever it was found that these procedures had been breached, or that the private management did not comply with the agreed terms and conditions stated in the contract, fines were imposed on the private counterparty, which resulted in extraordinary financial transactions, as can be observed on the following table:

Table V
Value of fines collected by each Hospital

PPP Hospital				
Cascais	Braga	VFX	Loures	Total
2,314 €	17,414,570 €	15,821,126 €	9,944,429 €	43,182,439 €

Source: Table extracted from the Report N°5/2021 – OAC, April 2021
VFX – Vila Franca de Xira

The total amount collected from fines imposed to the managing entities reached above forty-three million euros according to the collected data.

The differences between the amounts collected for each hospital seem to be related to the overall annual evaluations committed by the State. Cascais hospital, for example, distinguishes itself by paying a relatively anemic amount (2,314 €), this being directly connected to its excellent reviews during the entire period of its operation. In contrast, Braga hospital was fined heftier amounts, a consequence of its less than positive evaluations during the first years under private administration. Vila de Franca's Xira hospital, despite its smaller scale in comparison to Braga's, had to pay a nominally similar fine (this being also connected with its lower annual evaluations when compared its other

three hospitals, Vila de Franca de Xira was the only PPP hospital which never achieved a “Very good” mark in any year of its operation).

When analyzing the root cause of these fines it is interesting to notice that, for example, Vila Franca de Xira’s most irregularities were mostly concentrated in its service (60,6%). The irregularities in this specific area, concludes the audit, are mostly related to the unavailability of reliable records concerning the stockpile of medical equipment. On the other side, while Braga hospital has a clean record regarding services (not a single incident noted during its entire operation) it has paid a considerable number of fines due to the unavailability of its emergency room services (45,8%) when compared with the other PPP hospitals, regarding overall percentage⁶⁷.

3.2.2. *Value for Money Valuation*

The *VfM* method was estimated while comparing the expected expenses with the PPP with those expected if a totally public option was chosen. The 2021 Report⁶⁸ by the Audit Court used this method during its research and it reached a series of conclusions. In face of the results, the total amount of savings calculated by the *VfM* method have amounted to € 671 million, this being the result of € 716 million saved by the hospital managing agents (HMA) in face of a net loss of € 45 million by the infrastructure managing agents. The estimated savings have differed between PPP hospitals, and as the audit concluded, the savings were economically justifiable due to the positive results of the clinical management, in face of the losses of the infrastructure managing component.

3.3. Hypothesis Discussion

Following the analysis of the economic and financial indicators we will try to understand which hypothesis can be supported by the empirical evidence presented throughout the research, those which our research can’t provide a clear answer (or reliably support them in most cases) and those for which the available data promptly denies their feasibility. After that we shall present our preliminary conclusions, preparing the premises to support the final conclusions of this study.

We shall follow with each hypothesis and our conclusions regarding each one:

⁶⁷ STATISTICS PORTUGAL. Conta Satélite 2000-2020Pe. Accessed on 21st July 2021.

⁶⁸ COURT OF AUDITORS (2021). Summary Report, Public-Private Hospital Partnerships in SNS, No. 5/202, p. 10. Accessed on 25th of June.

Hypothesis 1 – The empirical research has shown that, on a general view, there has been a relative balanced distribution of liabilities during the described time, between both public and private partners in the healthcare related PPP's. This balance was slightly (although still meaningful) offset very recently due to a spontaneous change in circumstances, being a direct consequence of the Covid-19 pandemic. This event led to an increase of public spending in face of its private counterpart, going in line with the urgent demand of more resources to contain the pandemic, as well as reflecting the State's responsibility in protecting public healthcare.

Hypothesis 2 - Both this document's research and the latest institutional audits own conclusions (that have been included in the analysis) do contradict the statements initial premise, that the maintenance with Public-Private Partnerships increased overall during the period. Nominally speaking, the expenditure in PPP has indeed increased over time, starting from 1,2 thousand million euros in 2015 to over 1,3 thousand million euros four years later, in 2019. However, from 2019 to 2020 this value decreased, mainly explained by the political approach and consequent legal reform regarding PPP's in Portugal. This reform prompted the early termination of several PPP contracts in face of diminishing expectations of profits by the market agents. Additionally, it has been concluded that, on different degrees between each case, all four hospitals under private management achieved favorable results in the eyes of the national board in charge of auditing the public finances (the previously mentioned Tribunal de Contas). Overall, when taking into consideration the overall benefits to the local's population health, and the extra costs associated with legal disputes between the two parties, we can conclude that the costs can be justified in face of the results these hospitals achieved, contributing to a better healthcare service to those citizens capable of using them.

Hypothesis 3 - When analyzing the major economic indicators, related to the total expenditure in the health sector, we can conclude that there has been a considerable increase in the amounts of resources spent in this area, by the State, between 2010 and 2020. The overall amount spent per capita went from €1,666.82 in 2010 to €1,989.10 in 2020, reflecting an increase of approximately €322.28 spent per person. This, allied to the fact that the Portugal is, for the first time, in many years, going to spend over 10% of its national GDP in Health, reflects the real extra weight supported by the public finances. It is however important to highlight the special circumstances that are, without a doubt,

influencing these numbers. The percentage per GDP metric, for example, is affected by the double effect of the economy shrinking and extra medical resources needed during a period of global pandemic. This naturally has increased the State's (as well as the private health sector) expenses which otherwise might have not. As such, we can treat these increases as temporary results of an unpredictable event, and not the norm. From our observations it is still relatively early to fully determine the impact of the Covid-19 pandemic in the State's Budget, and what future consequences it may bring about. Regarding the PPP, it is interesting to note the total expenditure with private-managed, State owned hospitals and related projects decreased significantly between the last years for which reliable data is available, between 2018 and 2019. Until very recently the share of resources dedicated to these projects lowered significantly - a direct result of the legal landscape transformations and political approach to these type of contracts – from approximately 20% between 2015-2017, dropping to 16,8% in 2019. Considering the savings achieved by this model (determined by the VfM method) and the early termination of several PPP contracts, it can be said that this type of contracts will not significantly impact the public finances, much less destabilizing them to the point of rupture.

Hypothesis 4 - regarding the degree of innovation and know-how of private partners operating in the health sector, they surpass the efficiency and quality offered by the public sector in relation to the national health service. The existing literature and experience with PPP have achieved mixed results regarding the alleged private's superior technology and efficiency of their services. The presence of competition within the industry is a key factor in motivating private companies to invest in their services. The ultimate objective of this behavior is, as in any competing market, to provide better, more sophisticated services/products than competing companies to earn a greater share. Despite recognizing the great amount of knowledge, and practical experience, that many companies involved in the private health sector do possess it is still too early to reach any longstanding conclusions. The overall positive results do certainly provide some evidence of the good quality of the services provided by these entities (Braga, Cascais and Loures hospitals did achieved a very good evaluation at the end of 2020), which in turn should reflect a good quality of the provided healthcare. Additionally, it has been concluded that the PPP Hospitals have underwent a series of accreditation and evaluation processes more demanding than their public counterparts, which might help to explain the superior marks

regarding quality and customer satisfaction. On the other hand, there have been experiences in the past where, outside of the health sector, the managing entities' superior knowledge in its area of operations has been negated by factors that led to sub-optimal outcomes. These ranged from economic uncertainty, market flaws, or political instability. The overall experience with PPP for the health sector in Portugal has been positive, and we should highlight the several factors that influenced it, including the respectable degree of sophistication that all hospitals under private management achieved. However, when considering the previous past experiences, in other areas, where PPP's failed to deliver the expected result, and the fact that this document aims primarily to study the impact of PPP on an economical and financial basis, it could be considered premature to consider this hypothesis as unconditionally true with the present data.

Hypothesis 5 - Our current analysis presents leads to justify the existence of PPP based on the public sector incapacity of answering to the healthcare needs of the population. This is simultaneously combined with the more appellative financial conditions that a PPP presents in comparison with the public option. These two factors led to the appearance of this mixed public/private option, during a time when cash-strapped States were trying to find a less onerous solution to build more infrastructure and projects (including hospitals) to serve the national needs.

4 – Conclusions, Study Limitations and Future Research Lines

Since the beginning several questions were placed regarding the PPP and, after completing the proper analysis of the matter, several premises and results have been reached. We have seen that in matters of PPP policy option, the main emphasis should be on the evaluation of the results, quality at the lowest possible cost, i.e., with the highest VfM.

Some authors note that it may be desirable, in terms of efficiency, to replace the interventionist State by a regulatory one, and argued that the provision of services by private parties is superior to public provision. Additionally, they consider that PPPs are the best form of government contracting or outsourcing, because they can generate greater efficiency savings. Another argument in favor of PPPs, is advocated by Savas (2000) and starts from the understanding that, by using a PPP, the participating private parties help governments in capital spending on infrastructure, especially in times of budget

constraints. The authors also been argued that the transformation of the economic paradigm makes evident a new model of governance, the New Public Management.

Concerning the advantages and disadvantages of PPPs, we have seen, that depends how the PPP is structured, and on ensuring that the drivers of success are applied. In results of the challenges underwent over the years, the government committed itself to repealing Decree-Law No. 185/2002 of 20 August and to regulating the signing of public-private partnerships (PPPs) in the health sector and, at the same time, to legislating on the public management of SNS establishments, which came with Decree-Law No. 23/2020, 22 May 2020. Until then, the Decree-Law No. 185/2002 of 20th August, now revoked, gave more space to private entities by establishing the possibility of entering partnerships for the concession of the management of care units to private entities and allowing joint investment between these entities and the State.

The Health Basic Law approved by Law No. 95/2019 of 4 September, and the Decree Law No. 23/2020, published on 22 May, which revokes the Decree-Law No. 185/2002 of 20 August, and regulates the participation of PPP in the health sector, by establishing the rules for the celebration of management partnership contracts in the health sector, on a supplementary and temporary basis, in cases of justified need, and defines the terms of management of SNS establishments, when these are based on the execution of these same contracts» . Essentially, it limits the participation of private entities to the existence of a "justified need" (Article 1 (1)) and defines that these must be of a "supplementary and temporary nature" but does not remove Decree-Law no. 111/2020 of 23 May.

About the impact of the Public-Private Partnerships in the Health Budget in Portugal it is possible to retrieve several conclusions:

I. First, we have seen, that while the public sector was responsible for all phases of your project, and it was possible to outsource certain services. The State assumed all the risks, and all related expenses are considered in the annual budget. In addition, the State owns all resources and infrastructure during all phases of the project. Overall, the State recurs to this method of contracting instead of pure public option for several reasons: more efficient use of public resources, dispersion of the risk outside of the public domain, and the consequent generation of competition within the market in which the PPP is being inserted. The new paradigm involves PPPs and assumes different synergies than the traditional model, namely: the responsibility of the project is shared between the two

parties, where the State is responsible for planning and establishing the expected costs and results of the project, as well as the expected expenses, and the supervision and operation of the projects, is the responsibility of the private partner.

One of the conclusions reached during our study is that, in a general way, the existence of PPP is usually determined due to the incapacity of the public sector of answering the population's needs. The inexistence or scarcity of private agents to answer to this demand can be mostly attributed to the low economic return that these projects may have (or that the investment needed is so large that they can't finance them on their own, hence the need for inclusion of a bigger agent such as the State). What started as a mean for cash-strapped Social State governments to invest has evolved into a generalized tool capable of lowering public costs.

When analyzing this matter on a European scale we can observe the continuous efforts of major economic agents – such as the European Investment Bank and the European Investment Fund – to finance many PPP projects around Europe, and the continuous pursuit by the European Leadership to persuade Member-States into using this method of contracting. When evaluating the economic impact of the PPP in the health sector one should take into consideration that this type of contract was just one of many tools used and experimented in order to solve the main problem of all countries with Public healthcare systems - how to create a healthcare system that can maximize the medical coverage of the general population, in a way that the social cost of that very same system does not surpass its output. Expanding the utility of the national health service without inflicting collateral damage to other important areas of the economy is a long-sought objective and this should be taken into consideration when discussing this matter.

On a macro level, it was possible to note that the evolution of the health expenditure did not mirror the expenses related to health-related PPP. Since 2010 that the costs of the State increased as time went due to many factors, such as the ageing of the population, higher demands from a better educated population and more expensive medical resources. This increase can be easily seen by the fact that, by 2019, the total expenditure of the Portuguese State in the health sector reached, for the first time in many years, more than 10% of Portugal's GDP. This increase grew exponentially during the last year, 2020, as a direct result of the Covid-19 Pandemic. Similarly, to other countries, the sanitary crisis led to huge efforts from the State to invest in an already overstretched SNS, to equip it with the human and medical resources needed to mitigate the life loss created

by the pandemic. The State, being constitutionally tasked with the protection of public healthcare, had to intervene, hence the extraordinary expenses.

Having the macro health context explained, the analysis of the PPP performance has achieved interesting results throughout our research. First, the overall results of the private managed State-owned hospitals have been mostly positive in all major categories. The latest audits and evaluations have showed us that there was, indeed, savings generated by the application of this method. These savings have reached approximately € 671 million, meaning that the four hospitals under PPP contract managed to save that amount in face of the expected costs if a pure public option was chosen instead.

Side by side with the achieved savings were the good marks regarding the quality of service provided by these hospitals. Of the 4 units, only one of them had a lesser “Good” mark in its annual evaluation by 2018 (Vila Franca de Xira, which achieved a “Satisfactory” mark) while all other ones distinguished themselves with top marks, surpassing many of their public-managed counterparts. Despite these encouraging results, our analysis highlighted several factors that must be mentioned so that a credible conclusion can be presented. First, we must highlight the fact that, while the hospital’s managing entities, (responsible for the day-to-day activities) have achieved positive remarks in efficiency, only the Braga’s Hospital infrastructure managing agent managed to spend less resources than its public counterpart would.

According to the VfM evaluation, all other three units had net losses in this part of the contract, which translates into wasted resources. Investigating the origin of these budget slips could help to find new ways to avoid unnecessary costs in future partnerships.

II. Second, according to the latest audit by the Audit Court, the PPP hospitals went through tougher assessment and accreditation procedures than those hospitals under public management. Despite this additional scrutiny, they still achieved higher marks than many of their public counterparts regarding the quality of healthcare provided. It should be asked here if it is possible for a spill-over effect of good managing practices to the public administered units, allied with the same level of supervision, could ever be achieved. This might be able to help the State to find new ways of eliminating unnecessary expenditures, through a better discipline in resource management.

III. Third and last, we must consider that, by 2018 for example, there were only 4 PPP hospitals, within a global number of 230 active hospitals in Portugal, this grand

number involving all kinds of hospital (civilian and military, private and public). With such a small number within the whole population, it might be unreasonable to extrapolate that what works within one case might do the same for the rest. It must be reminded that different regions have different population characteristics, and that there are several variables that will affect on how well the local health infrastructure will be able to cope with local needs. It can be determined that, based on our analysis, the Portuguese State managed to extract benefits with the implementation of Public-Private Partnerships and employed its own resources more efficiently when hiring private contractors to manage these health units.

On a State budget optic, the results were generally positive, managing to achieve savings while guaranteeing better quality healthcare. From the point of view of most of the mentioned authors, the Public-Private partnerships do have their place within the national health system, assuming an auxiliary role to the SNS.

This research does not exhaust the topic of Public-Private Partnerships, even within the Healthcare sector. However, the importance of contracting through the PPP model in the health sector and its impact on the State budget for health between 2010 and 2020 has been demonstrated, as it represents a considerable portion of the Portuguese State's investment in the last decade, in addition to the relevant benefits that are returned to the country and the impact of the expenses on current and future public accounts.

Study Limitations and Future Research Lines

During this analysis there were some challenges that hampered our efforts to enrich the research even further. The current epidemiological situation has been a considerable barrier when trying to collect data, particularly removing any chance on visiting the mentioned installations and speak with the PPP's managing entities on a deeper level, getting to know more from their own experiences and opinions regarding this matter. There was also some difficulty in finding consistent empirical data, regarding the financial flows between agents, so that it was necessary to shorten some time schedules in order to guarantee the data's consistency and reliability. Additionally, a relevant limitation of this study is the near exclusive use of secondary sources present in the various documents analyzed. The non-use of econometric methodologies is also identified as a limitation of this study.

Regarding future research, an improved evaluation of the cost-benefit ratio associated with the PPP can be achieved with the inclusion of more primary data. It would

be interesting to study on how well the PPP hospitals managed to surpass the challenges posed by the Covid-19 Pandemic versus, for example, the public managed ones. Did they managed to maintain higher degrees of efficiency, as they mostly did before the epidemiological situation? Were there any experiences earned during the crisis that may help the SNS deal with future pandemics, especially regarding with resource management, a critical component during these resource destructive periods?

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