

Social Sustainability in Public-Private Partnership Projects: Case Study of the Northern Beaches Hospital in Sydney

Abstract

Purpose

The purpose of this paper is to present evidence to the heated debate “whether Public-Private Partnership (PPP) model should be introduced into the hospitals” and, if so, how to promote the social sustainability of such PPP projects.

Design/methodology/approach

This paper has established an analytical framework to analyse the social sustainability of PPP projects. Using content analysis method, a single case study was carried out on the Northern Beaches Hospital in Sydney, Australia.

Findings

The results show that there are many problems related to social sustainability in the project, due to which employees and patients were exposed to most of them. Some recommendations are provided, including to strengthen the supervision of the project, provide sufficient information, establish communication channels and stakeholder participation, improve hospital policies and procedures, and strengthen government support.

Practical implications

This paper can provide guidance for the stakeholders in a partnership, including the public and private sectors, to analyse the social sustainability implications, and then plan and implement hospital PPP projects to achieve social sustainability goals. Meanwhile, it can also provide important reference for the employees, patients, local community and society to assess social sustainability issues, and provide relevant inputs to inform decision makers in the development, delivery and management of hospital projects.

Originality/value

The research will contribute to knowledge of social sustainability of hospital PPP projects. The proposed analytical framework can be used to analyze and assess the social sustainability of such projects from the perspective of stakeholders.

1. Introduction

Social sustainability is one of the three pillars of sustainable development. In recent years, social sustainability has gained increasing interests from both academics and practitioners. Generally speaking, social sustainability concerns the quality of life (Laguna, 2014), and pursues the realization of human well-being (Rogers et al., 2012). It is a multi-dimensional concept with complicated meanings (Missimer, 2013). Both quality of life and well-being are highly abstract, including basic

1 needs, equity and justice, health and safety, etc. Hence, many studies focused on social sustainability's
2 measurement and assessment by establishing indicator frameworks (Hossain et al., 2018, Nathan, 2018,
3 Veldhuizen et al., 2015, Almahmoud and Doloi, 2015, Karji et al., 2019, Montalbán-Domingo et al.,
4 2018).

5
6 Social sustainability is particularly crucial for hospitals. As a place to provide health services for
7 human beings, the focus of hospital is its patients. Hospital meets the health needs of patients and
8 directly affects their quality of life (Khosravi and Izbirak, 2019). Health means not only the absence
9 of disease or infirmity, but also that people's physical, mental and social well-being is in a good state
10 (WHO, 1948). For employees, hospital is a highly demanding and where work goes on through day
11 and night. Therefore the health of employees should also be of concern to the hospital. Moreover, the
12 quality of employees is an important attribute to determine the quality of health service. The
13 environment and organization of a hospital inevitably affect the therapeutic process for patients and
14 employee efficiency and also impacts the local community and society. Therefore, a hospital is
15 socially sustainable when it can pay thorough attention to various social impacts on stakeholders
16 during its lifecycle, and realize stakeholders' well-being.

17
18 Social sustainability has received considerable attention after the Public-Private Partnership (PPP)
19 model is introduced in the hospitals. One of the crucial reasons for adopting this model is that
20 governments intend to use the private sector's finance and technology to achieve the public goal of
21 improving human health (Whyle and Olivier, 2016). However, the inherent profit-driven goals, culture
22 and values of private investors do not align with the realization of public interests in a hospital PPP
23 project. Research indicated that PPP may increase risks for the government, leading to disputes among
24 different stakeholders. Specifically, it may cause high infrastructure cost in the long run and adverse
25 public reaction. The job security of hospital staff might also be affected (Top and Sungur, 2019).
26 Furthermore, the pursuit of interests by private investors may cause moral hazards (Kamugumya and
27 Olivier, 2016) and reduce service quality (Uysal, 2019). The emergence of these problems cause people
28 to worry about that the health needs of patients, especially public patients, may not be fully met and
29 the realization of their well-being may be affected.

30
31 Surprisingly, the social sustainability of hospitals, including the social sustainability of hospital PPP
32 projects, has not attracted enough attention. Our literature review shows that there are very few studies
33 in this field. However, in the last decade, hospitals are facing increasingly fierce competition, the
34 influence of patients is growing, and the demand for more effective delivery of health services is also
35 increasing. The introduction of PPP model further intensifies the contradiction. Two questions arise:
36 first, should PPP be introduced into the hospitals? In other words, will the social sustainability of
37 hospitals be negatively affected by the introduction of PPP model? Second, if so, how to ensure the
38 social sustainability of hospital PPP projects? Based on the stakeholder theory, this paper will establish
39 an analysis framework according to the research of Labuschagne et al. (2005), which has been widely
40 used, to guide the case study of the Northern Beaches Hospital (NBH) in Sydney. The meaning of PPP
41 model to hospital's social sustainability and how to avoid the social unsustainability of hospital PPP
42 projects will be discussed from an empirical perspective. The results of this paper will contribute to
43 the ongoing discussion of PPP application in hospital projects by highlighting the social sustainability
44 dimension. The proposed analytical framework can be used as a useful template to analyze and assess
45 the social sustainability of other hospital projects from the perspective of stakeholders. From a
46 practical point of view, this paper can provide guidance for the stakeholders in a partnership, including

1 the public and private sectors, to analyse the social sustainability implications, and then plan and
2 implement hospital PPP projects to achieve social sustainability goals. Meanwhile, it can also provide
3 important reference for the employees, patients, local community and society to assess social
4 sustainability issues, and provide relevant inputs to inform decision makers in the development,
5 delivery and management of hospital projects.

6 **2. Literature Review**

7 ***2.1 Social sustainability and its assessment***

8 There is no consensus as to what social sustainability stands for. Most scholars defined the concept
9 based on the ability and state. In other words, social sustainability is regarded as a final state----the
10 realization of human well-being. It is achieved when the state is realized.

11
12 The abstract nature of social sustainability has led to a large number of studies focusing on its
13 assessment. Various indicators and frameworks have been established. Two classification schemes have
14 been widely used: classification by stakeholder categories (Hossain et al., 2018, Nathan, 2018,
15 Veldhuizen et al., 2015) and classification by social impact categories (UNEP/SETAC, 2009,
16 Almahmoud and Doloï, 2015, Karji et al., 2019, Montalbán-Domingo et al., 2018). Stakeholders refer
17 to “any group or individual that may affect or be affected by the achievement of organizational goals”
18 (Freeman, 2010, Benn and Gaus, 1986). Social impacts are the social and cultural consequences of any
19 public or private actions on human populations, which will change human life, work, entertainment,
20 relationships with others, values, norms, beliefs, and organizing to meet their needs (ICPGSIA, 1995).
21 However, these two classification schemes are not absolutely independent but are mutually
22 complementary. Only by integrating them into one framework can the impacts of projects on social
23 sustainability be fully reflected.

24
25 Based on this, Labuschagne et al. (2005) proposed a comprehensive framework of sustainability
26 criteria to assess the sustainability of projects, technologies and companies in the process industry in
27 South Africa. It focused on the internal and external social impacts of the company. Social
28 sustainability included four main criteria: internal human resources, external population, stakeholder
29 participation and macro social performance. This framework has been widely used (Hendiani and
30 Bagherpour, 2019, Sierra et al., 2016, Bubou et al., 2009, Shiau and Chuen-Yu, 2016, Kumar and
31 Anbanandam, 2019, Rajak and Vinodh, 2015).

32 ***2.2 PPP in the hospitals***

33 PPP is increasingly being introduced into hospitals. Many reasons can explain this trend. The surge in
34 health costs coincides with the decline in governmental budget. Meanwhile, the pattern of disease has
35 been changing, and medical technology has also undergone tremendous changes. All these make
36 government increasingly unable to bear the responsibility of providing hospital facilities and health
37 services alone (Blanken and Dewulf, 2010). The introduction of private investors can help the
38 government better realize the public goal of improving human health (Whyle and Olivier, 2016).

1 Specifically, the hospital PPP projects can provide better health services at a lower cost, to better
2 achieve Value for Money.

3
4 According to the different responsibilities of private investors, hospital PPP projects can be divided
5 into three models. The first model includes only the building itself and its maintenance (aka hard
6 facilities), and sometimes soft facilities and services (i.e. non-clinical services, such as catering and
7 cleaning). The second model includes not only infrastructure and soft facilities but also clinical
8 services. While the third model goes beyond the scope of a hospital and includes other parts of the
9 healthcare system, such as primary care centres (Wang et al., 2019). Scholars are concerned about how
10 to adopt PPP model in building or refurbishing hospitals, including private investors' choice,
11 responsibilities, risk sharing and payment mechanism, etc. (NHS European Office, 2011, Cappellaro
12 and Longo, 2011, Barros and Martinez-Giralt, 2009, Cruz and Marques, 2013).

13 ***2.3 Hospital PPPs' social sustainability***

14 The study of hospital PPPs', even general hospitals' social sustainability has not attracted much
15 attention from academia. There is only one study to date, which analyzed the social sustainability of
16 hospital building, not clinical services (Capolongo et al., 2016). However, many scholars have studied
17 the performance of hospital PPP projects, some of which are related to social sustainability. The results
18 of such studies are mixed. Studies in the United Kingdom, Canada, Spain, Australia, Turkey, Lesotho,
19 Iran, India, and Romania demonstrated that PPP projects have better performance than public hospitals.
20 Specifically, such projects provide more beds, treat more patients, have shorter average waiting time
21 for surgery (Calu et al., 2011), better service quality (Vian et al., 2015, Barlow et al., 2013, McIntosh
22 et al., 2015), and higher satisfaction (Baliga et al., 2016). In addition, such projects can promote
23 technology transfer and reduce risks (Sadeghi et al., 2016). However, the performance of hospital PPP
24 projects is unstable (Caballer-Tarazona and Vivas-Consuelo, 2016, Oliveira et al., 2020, Kamugumya
25 and Olivier, 2016, Uysal, 2019). More studies indicated that such projects are rigid and nontransparent
26 (Vecchi et al., 2020), have higher construction and operation costs (Top and Sungur, 2019, Hashim et
27 al., 2016) and limited innovation (Hashim et al., 2016, Barlow et al., 2013). Furthermore, the transfer
28 of control over service delivery to the private sector makes monitoring and evaluation more difficult.
29 Moreover, driven by profitability, such hospitals tend to " cherry-pick " the most profitable medical
30 and surgical specialties. Employees face less job security, lower payment and longer working hours
31 (Acerete et al., 2012). In general, hospital PPP projects have not achieved Value for Money (Acerete
32 et al., 2012, Vecchi et al., 2020, Rajasulochana and Maurya, 2020) . Great care must be taken when a
33 hospital PPP project is designed (Waluszewski et al., 2019).

34 ***2.4 Research gap and the establishment of an analytical framework***

35 Social sustainability is an important goal of hospitals. However, the existing literature indicates that
36 less attention has been paid to it, not to mention the hospitals operated under PPP model. The current
37 situation and problems of social sustainability in hospitals is under researched. Furthermore, it is
38 difficult to judge whether it is effective to involve private investors in the provision of public health
39 services . In reality, some countries have taken a stance of distancing themselves from PPP in the field

1 of healthcare, for example UK and Italy (Vecchi et al., 2020). Many practitioners also believed that
2 although PPP was introduced into hospitals, they did not have the opportunity to solve or understand
3 many problems caused by the different cultures, values and governance structures of the private sector
4 (Reich et al., 2003). Therefore, it is urgent to understand the relationship between PPP and the social
5 sustainability of a hospital. Through the case study of NBH, this paper discusses whether the social
6 sustainability of hospital is adversely affected by the adoption of PPP, and identifies the problems that
7 hospital PPP projects are likely to encounter in achieving social sustainability from an empirical
8 perspective. In addition, it discusses how to deal with these problems to avoid the social
9 unsustainability.

10
11 Stakeholder theory is the theoretical foundation of this study. This theory originated in 1984 when
12 Freeman published his book, *Strategic Management: A Stakeholder Approach*. Stakeholders refer to
13 “any group or individual that may affect or be affected by the achievement of organizational goals”
14 (Freeman, 1984). There are two different ways to manage stakeholders, i.e., management of
15 stakeholders approach and management for stakeholders approach (Freeman, 2010). The former
16 defines the stakeholders as resource providers. Values such as transparency, justice and fairness are
17 unimportant. Ethical consideration is lack. The latter represents an ethical approach, which holds that
18 all stakeholders are valuable in their own right (Huemann et al., 2016). In project management, the
19 importance of stakeholder management becomes more obvious when considering the social impacts
20 of the projects. At present, however, project stakeholder practices mainly adopt management of
21 stakeholders approach, whereas a management for stakeholders approach may be beneficial (Eskerod
22 and Huemann, 2013). To achieve the goal of value creation for a project, attention should be paid to
23 stakeholder engagement (Freeman et al., 2017). Quality stakeholder engagement can promote more
24 equitable and sustainable social development, stimulate innovation, and develop new partnerships
25 (Accountability, 2015). In addition, stakeholders have joints benefits (Huemann et al., 2016).
26 Stakeholder engagement contributes to benefits co-creation and value creation (Keeyes and Huemann,
27 2017).

28
29 Stakeholder theory has been widely used to analyze the motivators, barriers and enablers of social
30 sustainability in the healthcare supply chains (Hussain et al., 2018, Hussain et al., 2019, Khan, 2018,
31 Khan et al., 2018, Khosravi and Izbirak, 2019). The human element is involved at every stage of the
32 healthcare process (Gattorna, 1998). Stakeholders will not contribute for no reason unless their social
33 needs are met or expected to be met. Based on this theory, we propose that a hospital PPP project is
34 socially sustainable when it can pay thorough attention to various social impacts on stakeholders
35 during its lifecycle and realize stakeholders’ well-being.

36
37 Further, this paper establishes an analytical framework, based on the research of Labuschagne et al.
38 (2005), as a basis for the discussion of the social sustainability of hospital PPP projects (Table I). An
39 appropriate indicator framework can help one better understand social sustainability (Yu et al., 2017)
40 and be used to assess it (Gudmundsson H., 2016).

41
42 **[Insert Table I here]**

43
44 The central focus of the hospital should be the patients. Therefore, the framework of this paper adds a
45 new stakeholder group - patients to the framework of Labuschagne et al. (2005). To meet the patients’

1 health needs, three aspects need to be considered: equal opportunity, health and safety, and accessibility
2 and usability. In addition, considering the different scopes of social influence, the impact of projects
3 in the framework of Labuschagne et al. (2005) on the "productive capital" of "external population" and
4 the impact of "socio-environmental performance" in "macro social performance" are omitted.

5 **3. Research Methodology**

6 ***3.1 The choice of single case study***

7 This paper adopts a case study method. A case study is appropriate when the researcher desires to gain
8 an in-depth understanding of a complex phenomenon within its specific context (Eisenhardt and
9 Graebner, 2007, Yin, 2017). It can produce specific and contextual knowledge, which is valuable for
10 the study of human affairs (Flyvbjerg, 2006). Social sustainability is a complex and multi-dimensional
11 concept, and people know little about the social sustainability of hospital PPP projects. In addition, as
12 an empirical query into the contemporary phenomenon in the real-world context (Yin, 2017), a case
13 study can make up for the gap due to the lack of empirical studies on hospital PPP projects.

14
15 Further, a single case study method is adopted in this paper. Two reasons can explain the choice: (1) A
16 single case study is appropriate. It can make a complete description of a phenomenon in its context
17 and explain it (Yin, 2017). A case represents the "force of example". Clarifying the underlying causes
18 and consequences of specific problem helps people understand the problem better. One can even
19 generalize on the basis of a single case (Flyvbjerg, 2006). In this paper, in-depth description and
20 explanation are very useful for people to understand the social sustainability of hospital PPP projects.
21 (2) Multiple case studies cannot be implemented due to a lack of access to data. It is rather challenging
22 to obtain comprehensive and in-depth information to conduct multiple case studies.

23 ***3.2 The choice of NBH***

24 The NBH in Sydney, Australia is selected as the single case. Two reasons can explain the choice: (1)
25 The NBH is a "critical case". Flyvbjerg (2006) believed that in the field of social science, the strategic
26 choice of case may greatly increase the generalizability of a case study. A critical case is of strategic
27 importance to the problem to be analyzed. The NBH is such a "critical case". As a hospital operating
28 under PPP, many problems faced by the NBH are closely related to social sustainability. The hospital
29 provides services to both public and private patients. Opened on October 30, 2018, it was praised as a
30 "life-changing infrastructure" by NSW government. However, in the following weeks, some serious
31 problems occurred in the NBH, which affected staff, patients and other stakeholder groups adversely.
32 Most of these impacts are related to social issues such as equity and fairness, health and safety.
33 Therefore, this case can thoroughly demonstrate the relationship between PPP model and hospital
34 social sustainability. (2) Publicly available data on the NBH is comprehensive and provides in-depth
35 information. On June 6, 2019, the NSW State Council launched an open investigation. During the
36 investigation, the committee received 236 submissions and nine supplementary submissions, held
37 three public hearings and one camera hearing at Parliament House in Sydney. In February 2020, the
38 Committee released its final report "Operation and management of the Northern Beaches Hospital". It

1 should be pointed out that this report was completed sixteen months after the opening of the hospital
2 and eight months after the inquiry began. The Committee conducted a thorough analysis of the
3 evidence presented to it from stakeholders in the health and medical profession and the Northern
4 Beaches community. The contents of the report were shown in Table 2. The purpose is to analyze the
5 problems existing in the operation and management of NBH and put forward suggestions for
6 improvement to meet the health and medical needs of the community. As a consequence, the NSW
7 government responded to the inquiry on August 27 2020. All data, including submissions, hearing
8 transcriptions, the final report and other documents, can be publicly accessed on the website of NSW
9 Parliament ([https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-
11 details.aspx?pk=2524](https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-
10 details.aspx?pk=2524)).

12 *[Insert Table 2 here]*
13

14 ***3.3 The application of content analysis***

15 Content analysis is adopted in this paper. This analysis method can utilize systematic and objective
16 means to make valid inferences from verbal, visual or written data, to describe and quantify specific
17 phenomena with minimal information loss (Riffe et al., 2019). Content analysis can be conducted in
18 many fields, such as the analysis of open-ended survey data (Krippendorff, 2013). Due to the emphasis
19 on interpersonal communication, it is particularly suitable for the research involving practice and
20 education of nurses and other helping professionals (Vaismoradi et al., 2013). The submissions, hearing
21 transcriptions, the final report and other documents obtained by the Committee during the NBH
22 investigation, provided the opinions of stakeholder groups including employees, patients, and local
23 community on the problems existing in the hospital. Therefore, it is very suitable for conducting
24 content analysis to understand people's perspectives on the social sustainability of NBH.
25

26 *3.3.1 Categorizing and Coding*

27

28 The analytical framework in Table I provides the category scheme for this study. The social
29 sustainability of hospital PPP projects has been divided into five categories: employees, patients, local
30 community, society and stakeholder participation. Each category is divided into several subcategories
31 and corresponding indicators. Categories and indicators are mutually exclusive. All indicators are
32 treated as codes to code the final report published by the Committee. The reason why the final report
33 was chosen for coding is that it was a detailed summary based on submissions and hearings. The
34 submissions, hearing transcriptions and other documents are used as the evidence support for coding
35 results.
36

37 *3.3.2 Reliability Assessment*

38

39 A pilot test is conducted to test the analytical framework after its initial establishment. Fifty
40 submissions are randomly selected and coded. The purpose of the pilot test is to determine whether
41 the classification rules are clear and whether some contents fall outside of the established categories
42 and indicators. The pilot test results show that none of the submissions included any social

1 sustainability-related content outside the analytical framework. Therefore, there is no need to make
2 adjustments to it. Through the pilot the researchers are able to get a consistent view of each indicator
3 while analysing it. The coding of the final report is completed by two co-authors independently, using
4 the analytical framework shown in Table I. However, although the reliability of the framework has
5 been tested, human errors can always occur in the process. Such errors are related to fatigue, personal
6 bias and perception. Therefore, besides self-validation, the independent coding results of the two
7 authors are compared. The inconsistencies are discussed by all the researchers and to reach a consensus.

8 **4. Case Study-the North Beaches Hospital in Sydney**

9 ***4.1 Project background***

10 NBH is a licensed level 5 hospital operating under PPP, providing medical services to the Northern
11 Beaches community in Sydney. According to the 'Guide to the Role Delineation of Clinical Services
12 (2018)' produced by the NSW Ministry of Health, role delineation relates to the complexity of services
13 a hospital can provide. The public services required of NBH are defined as those consistent with a
14 Level 5 hospital. It replaced two public hospitals in the area—Manly Hospital and Mona Vale Hospital.
15 Healthscope Ltd. is the private investor, which was taken over by Brookfield, a Canadian venture
16 capital firm, in February 2019. NSW Health is a public sector organization. According to the project
17 contract, Healthscope is responsible for the design, construction, and operation of the hospital. The
18 hospital will provide medical services for public patients (at no cost) and private patients for a
19 concession period of 20 years from the opening. The NSW government will purchase the public health
20 services provided by Healthscope. Upon expiration, the public part of the hospital will be returned free
21 of charge to NSW Health. Since then, Healthscope has another 20 years to continue to serve private
22 patients.

23
24 After the opening of the hospital, a series of serious problems emerged, leading to an open investigation
25 launched by the NSW Parliament on June 6, 2019. The Committee published its final report in
26 February 2020 and recommended that the NSW Government should not adopt PPP in any public
27 hospitals in the future. The NSW Government responded to the inquiry in August 2020 and confirmed
28 that no further PPPs are currently being pursued to build hospitals in NSW. PPPs are certainly not new
29 for governments, including the NSW Government, to build hospitals and provide public health services.
30 It is therefore surprising to find the need for an open investigation into NBH and the resulting
31 recommendation. This section will present the coding results of the final report using the analytical
32 framework, which evaluate the social sustainability in the NBH and the opinions of different
33 stakeholder groups.

34 ***4.2 Category 1--Employees***

35 ***4.2.1 Access to employment***

36

37 (1) Equal opportunity

1
2 The inquiry participants argued that the recruitment process of Healthscope lacked transparency
3 (Evidence, Dr Allan Forrest, the third public hearing transcription, November 5 2019, p 12). “A lack
4 of proper processes around recruitment provides fertile ground for favouritism and the potential for
5 discriminatory employment practices” (Submission 225, Australian Salaried Medical Officers'
6 Federation of NSW, p 16).

7 8 (2) Stable employment

9
10 There is no evidence that the NBH has a high turnover rate. However, the working conditions have
11 affected the stable employment, some medical staff resigned after a very short period of work due to
12 the lack of valid responses to their concerns (Evidence, Dr Rogers, the second public hearing
13 transcription, September 23 2019, p 19).

14 15 *4.2.2 Employment experience*

16 17 (1) Basic human rights at work

18
19 Junior Medical Officials (JMOs) were asked to help manage private patients although the project
20 contract stipulates that this position must be directly associated with the treatment of public patients.
21 Also, the collective bargaining right of employees was hindered. Healthscope accepted individual
22 negotiations of visiting medical officers' (VMOs) contract but not collective negotiation. The lack of
23 basic information also made it impossible for unions to negotiate effectively on behalf of their
24 members (Submission 212, Unions NSW, p 4).

25 26 (2) Fair employment contract

27
28 According to the project contract, Healthscope was responsible for the workforce migration of eligible
29 staff from Manly and Mona Vale Hospital in accordance with their existing benefit terms and
30 conditions at the time of transfer. However, the employees' due benefits have been deprived at the time
31 of actual migration, such as ordinary hours of work, duties and responsibilities, and superannuation
32 payment. In addition, the time for employees to review and negotiate changes to the contract was very
33 limited (Evidence, Ms Fiona Davies, the second public hearing transcription, September 23 2019, p
34 21-22).

35 36 (3) Rational compensation system

37
38 The employee's wages were delayed in the first few months of the hospital's operation. Some JMOs
39 were not even paid for specific work (Submission 225, Australian Salaried Medical Officers'
40 Federation of NSW, p 26).

41 42 *4.2.3 Health and safety*

43 44 (1) Healthy and safe workplace

1
2 Healthscope is required to provide a healthy and safe workplace for employees. The co-location
3 arrangements, i.e. public and private medical services located in one place, in the eyes of NBH
4 managers, provides doctors with the possibility of co-locating their practice, which can reduce their
5 stress and anxiety to ensure health and safety.

6 7 (2) Policies and procedures conducive to health and safety

8
9 After site visits, the Health and Training Institute (HETI) concluded that the NBH lacked policies and
10 procedures to support safe work practices. Inappropriate or inadequate policies and procedures have
11 created stress and anxiety among staff. For example, Healthscope adopted a "just in time" approach
12 for the storage of basic hospital supplies and equipment, which means that when routine drugs and
13 medical supplies are consumed, they would then be reordered. This practice has brought tremendous
14 pressure on staff. In addition, the hospital employed many agents, i.e. temporary staffs after its opening,
15 which created anxiety among permanent employees. They feel responsible but were unable to make
16 any effective changes.

17 18 (3) Healthy and safe work practices

19
20 Excessive workloads seem to be a significant problem for employees. To ensure that the hospital can
21 manage patients adequately and safely, senior and junior medical staff continued to work after hours
22 and weekends (Submission 225, Australian Salaried Medical Officers' Federation of NSW, p 7). The
23 situation of JMOs was even worse. Their working hours were severely overloaded (Submission 229,
24 Australian Medical Association (NSW), p 5-6). Over the years, this situation could increase the risk to
25 the well-being of young doctors, including the risk of suicide and physical and mental breakdown
26 (Evidence, Dr Sara, the first public hearing transcription, August 26 2019, p 51).

27 28 *4.2.4 Development of personal capacity*

29 30 (1) Education and training

31
32 According to the contract, Healthscope is responsible for the proper training and certification of
33 employees. Unfortunately, the company did not do this well. Taking the orientation of the employees
34 for example, permanent employees were notified six days before the start of the training week when it
35 was only one month from the opening of the hospital (Submission 229, Australian Medical Association
36 (NSW), p 5; Submission 108, Health Services Union, p 7). The hasty arrangement shows that
37 Healthscope ignored orientation. For JMOs who have worked in other public hospitals before, the
38 organizational culture has changed greatly, and the working environment is also quite different. The
39 experience disoriented them. Unfortunately, the Junior Medical Officer Unit, which has oversight of
40 JMOs, is understaffed. JMOs' concerns were nowhere to be raised (Submission 225, Australian
41 Salaried Medical Officers' Federation of NSW, p 24).

42 43 (2) Self-development

44
45 According to AMA's submission, JMOs do not have sick leave or study leave. That means they do not
46 have time for self-development.

1 **4.3 Category 2-Patients**

2 The NBH is a level 5 hospital involving multiple disciplines. Compared with Manly and Mona Vale
3 hospital, it can provide more complex and urgent services. According to the project contract,
4 Healthscope should treat both public and private patients equally, meet their medical needs and achieve
5 their well-being. The patients have the right to choose whether to use their private medical insurance
6 or not.

7
8 **4.3.1 Access to treatment**

9
10 (1) Procedural fairness

11
12 Healthscope is obliged to treat all patients who present themselves to NBH regardless of their insurance
13 status (Submission 224, NSW Health, P8). However, the submissions of inquiry participants showed
14 that public patients seemed to be treated unfairly. For example, when public patients living near NBH
15 have a heart attack, they can only be sent to the Royal North Shore Hospital, which is far away. NBH
16 will not provide emergency coronary care unless the patients have access to private insurance. The
17 reason is that emergency coronary care is only available to private patients, according to the contract
18 (Evidence, Mr Royle, the first public hearing transcription, August 26 2019, p 22). However,
19 Healthscope refuted such a claim and indicated that they had discussed with North Sydney Local
20 Health District (NSLHD) about the issue of extending coronary angiography services to public patients.

21
22 (2) Equal access to services, facilities etc.

23
24 Different stakeholder groups have varied views on whether patients in NBH have equal access to
25 services and facilities. Participants indicated that private patients had certain privileges. For example,
26 they were given priority, while public patients had to wait for a minimum period to receive a confirmed
27 date when surgery is needed (Submission 225, Australian salaried medical officers' Federation of NSW,
28 P 22). The level of care that public patients can enjoy is lower than that of private patients (Evidence,
29 Dr Tony Sara, the first public hearing transcription, August 26 2019, p 53). However, the project
30 contract explicitly provides that the NBH provides certain services only to private patients. In addition,
31 some participants argued that even the breakfast of private patients is better than that of public patients
32 (Submission 108, health services Union, P 2), which was rejected by the Healthscope. In addition, rural
33 patients may also be discriminated (Evidence, Dr Allan Forrest, the third public hearing transcription,
34 November 5 2019, p 12).

35
36 **4.3.2 Health and safety**

37
38 (1) Access to appropriate medical services

39
40 The project contract obliges Healthscope to provide clinical services to patients with high standards of
41 patient care and safety. According to NSW Health, the NBH “provides residents of the northern
42 beaches with enhanced access to more complex care closer to home and critical care services”
43 (Submission 224, NSW Health, P3). Healthscope has the same view. In the meantime, the Committee
44 acknowledged it had received a number of submissions from people who have commended the timely
45 and quality service patients received in NBH's emergency department (Submission 4, Dr Carolyn West,
46 p 1; Submission 11, Marian Gill, p 1).

47

1 However, at the same time, there were also a lot of negative voices. Adequate health care was hampered
2 by three problems. Firstly, the hospital's treatment of patients only focuses on immediately identifiable
3 problems. The lack of comprehensive judgment and treatment of patients leads to the damage of care
4 continuity (Submission 113, Northern Beaches Greens, p 6; Submission 108, Health Services Union,
5 p 6). Secondly, the hospital's opening preparation was inadequate. The lack of equipment and
6 permanent staff affected the level of medical services. Thirdly, the hospital lacked the appropriate
7 process and system. The major problem lies in the IT system- Telstra Health Electronic Medical Record
8 (EMR). This system is not compatible with the Cerner PowerChart (CPC) system used in state public
9 hospital systems and poses a risk to patient care. The hospital's managers acknowledged the problem
10 and indicated that they were correcting them.

11 (2) Better patient outcomes

12 Patient outcomes were not very optimistic. The submissions displayed that patients stay too long in
13 the emergency department. The probability of hospital-acquired infection had increased, and the
14 patients' complaints, for example lack of communication, mismanaged care were not handled in a
15 timely manner (Evidence, Ms Deborah Willcox, the third public hearing transcription, November 5
16 2019, p 31).

17 *4.3.3 Accessibility and usability*

18 (1) The accessibility of the project

19 The accessibility of the hospital is perplexing patients, especially the elderly and those with young
20 children. The hospital is located at Frenchs Forest and serves the Northern Beaches community,
21 including Manly, Pittwater and Warringah (Figure 1). There is no direct bus route from the North
22 Beaches to the hospital. Patients have to change buses. The shortest journey is 1 hour and 30 minutes.
23 Palm Beach, located at the northernmost end of Pittwater Peninsula, is 30km away from the NBH. The
24 roads along the way are narrow and crowded. Wakehurst Parkway is the most direct road to the new
25 hospital, but it is a one-way road on both sides. Moreover, since the opening of the NBH, roads have
26 often been closed due to floods and accidents (Submission 111, Palm Beach and Whale Beach
27 Association, p 1, 2 and 4). Other participants expressed concerns about the distance between the
28 parking lots and the emergency department.

29 [*Insert Figure 1 here*]

30 (2) The provision of essential amenities

31 The provision of essential amenities has also attracted the attention of participants. For example the
32 ambulances. Inadequate ambulances would seriously damage the emergency rescue of patients.

33 *4.4 Category 3--Local community*

34 *4.4.1 Human capital*

35 The impact of the NBH on local community's human capital mainly lies in local medical facilities.
36 The first significant impact is the availability of local public hospitals and beds. The NSLHD argued

1 that it was reasonable for the NBH to replace the two former hospitals, which were too old to provide
2 new care models. However, the Save Mona Vale Hospital Community Action Group believed that the
3 community needs smaller, closer to home hospitals with lower delineation to provide uncomplicated
4 patient care (Submission 121, Save Mona Vale Hospital Community Action Group, p 58). Some
5 stakeholders also pointed out that the number of public beds provided by the NBH had decreased or
6 increased very little. Nevertheless, NBH managers indicated that they do offer more public beds. They
7 further explained that the arrangement of public and private beds in the hospital is not fixed but driven
8 by clinical needs.

9
10 The second significant impact is local public outpatient clinics. After the opening of the new hospital,
11 the types of outpatient services did not increase but decreased.

12 13 *4.4.2 Community capital*

14
15 According to NSW Health, with the establishment of the hospital, a major health precinct in the region
16 has been formed, which can attract other health care providers (Evidence, Dr Lyons, the first public
17 hearing transcription, August 26 2019, p 13). More investment opportunities would follow.

18 **4.5 Category 4--Society**

19 *4.5.1 Macro economic welfare*

20 21 (1) Job creation

22
23 According to the project contract, Healthscope is required to provide employment opportunities for all
24 permanent NSW health employees working at Manley or Mona Valley hospitals. A total of 693 staff
25 members were eligible for migration. However, the flawed recruitment process resulted in many
26 doctors not signing contracts. Some doctors have resigned in a short time after its opening because of
27 the poor working conditions at the NBH (Evidence, Dr Betros, the second public hearing transcription,
28 September 23 2019, p 22).

29 30 (2) Reduction of service price

31
32 On the one hand, the NBH's scale economy would enable the government to purchase services for
33 public patients at a lower price compared to public hospitals. On the other hand, the current hasty
34 discharge of patients would inevitably increase the possibility of readmission and increase the cost to
35 the whole health system (Submission 113, Northern Beaches Greens, p 6).

36 37 *4.5.2 Fair competition*

38
39 According to NSW Health, the emergence of the NBH is conducive to innovation. The introduction of
40 private investors may bring in new ideas on how to better provide care services, which would enable
41 the government to consider how to improve the public health system of NSW and provide better public
42 services.

1 **4.6 Category 5--Stakeholder participation**

2 *4.6.1 Information provision*

3

4 (1) Provision of information to collective audience

5

6 The collective information provided by the NBH was considered insufficient. First of all, information
7 about the NBH's ownership, its relationship with the NSLHD, medical services provided, and the
8 differences between public and private services confuse the community (Submission 121, Save Mona
9 Vale Hospital Community Action Group, p 25). Secondly, the NBH's performance information lacked
10 transparency (Submission 225, Australian salaried medical officers' Federation of NSW, P 15).
11 However, NSW Health officials pointed out that the hospital's performance was publicly reported by
12 the Bureau of Health Information (BHI) in August 2019.

13

14 (2) Provision of information to selected audience

15

16 The NBH's problems in this indicator are its responses to employees' opinions. For example, doctors'
17 requests and suggestions on employment contracts, hospital design and operation were not
18 appropriately responded to (Submission 224, NSW Health, p 2). However, the NSLHD officials
19 claimed that there was "a lot of input from clinical staff to design the layout and the fit out to make
20 sure that it was for contemporary practices.

21

22 *4.6.2 Stakeholder influence*

23

24 Compared with public hospitals, the NBH provided few opportunities for participation and
25 communication among various stakeholders, including employees, trade unions, major community
26 groups, consumers, other hospitals and general practitioners (Submission 170, Friends of Northern
27 Beaches Maternity Services, p 6). However, Healthscope executives advised the Committee that
28 Healthscope has contacted with many community groups now.

29 **5. Discussion**

30 The previous section analyzed social sustainability in NBH operation and management using the
31 analytical framework in Table I. Based on the case study, we discuss the two questions raised in the
32 Introduction section of this article, namely, whether PPP model should be introduced into the hospitals,
33 and how to promote the social sustainability of hospital PPP projects.

34 *5.1 The meaning of PPP model to hospitals' social sustainability*

35 It is difficult to judge whether the PPP model should be introduced into the hospitals according to one
36 single case. However, this case study can improve people's understanding of the impact of the PPP
37 model used on social sustainability. In the case of the NBH, the impacts of the use of PPP on its social

1 sustainability is mixed.

3 *5.1.1 The advantages*

5 The main advantages are that the PPP model provides the hospital with a co-location arrangement for
6 both public and private services and has the potential of encouraging innovation. Hospital co-location
7 refers to the provision of both public and private medical services in the same healthcare facility. In
8 Australia, it has become very popular for private investors to participate in the hospital projects.
9 Hospital co-location is win-win, which can enhance the cooperation between public and private parties,
10 meet their needs to the maximum extent, and achieve mutual benefits (Brown and Barnett, 2004). It
11 also has many benefits for doctors and patients.

13 The introduction of PPP model also promotes innovation. The private investors in PPP model have a
14 potential motivation for innovation, especially low risk incremental innovation. Such innovation will
15 have a positive impact on the cost savings during the construction and operation of the project
16 (Roumboutsos and Saussier, 2014). Factors like the arrangement of PPP projects, contract structure,
17 government supports etc. can affect innovation (Carbonara and Pellegrino, 2020). NSW Health
18 officials believed that the introduction of private investors would bring healthcare service innovation
19 to the NBH. In fact, PPP is often used to stimulate and promote innovations in many healthcare fields
20 (Kosycarz et al., 2019). Firstly, it is an innovation mechanism. Competition among private investors,
21 communication between private and public sectors all contribute to innovation (IGHS, 2018). Secondly,
22 it is an innovative dynamic, which would affect many aspects of hospital outputs, including the quality
23 or quantity of service by acquiring a complex, innovative technology, producing technological
24 innovations, and/or developing non-technological (i.e., organisational, social or methodological)
25 innovations (Gallouj et al., 2010).

27 *5.1.2 The disadvantages*

29 The reason for introducing PPP in hospital is that it is supposed to provide medical services more
30 effectively and achieve Value for Money. However, the literature review in Section 2.3 demonstrated
31 that may not be the case. A precise judgment cannot be made at present for NBH. It is a worry that
32 private investors' profit-seeking objective may damage the public interest. The central focus of the
33 hospital should be the patients. Nevertheless, this case study's findings suggest otherwise. In its
34 investigation of the NBH, the Committee noted that there was a mismatch in values between the private
35 operator and the public hospital. This disharmony harms the social sustainability of stakeholders. One
36 must acknowledge that there are naturally potential conflicts of interest in PPP projects. Public interest
37 rarely coincides with those of private investors or other stakeholders. Specifically, private investors
38 must obtain economic benefits, which often conflict with public interests (Sharma et al., 2010).
39 However, the research indicated that the public and private sectors have a strong desire to achieve a
40 win-win situation in PPP projects. Fair allocation of risks, structured, well-defined and flexible
41 contracts, and effective communication mechanisms are conducive to ensuring the trade-off between
42 quality and efficiency and achieving win-win results (Domingues and Zlatkovic, 2015, Costantino and
43 Pellegrino, 2015, Eshun et al., 2020).

1 *5.1.3 A difficult choice*

2
3 For the NBH, the advantages of introducing the PPP model, i.e. hospital co-location and innovation,
4 were only mentioned in the submissions and evidence submitted by the Healthscope and NSW Health
5 officials. In contrast, the disadvantages were widely recognized by stakeholders. The Committee also
6 recommended that PPP should not be adopted in public hospitals in the future. Although PPP has its
7 inherent disadvantage - the profit-seeking nature of private investors, many other studies supported its
8 implementations (Vian et al., 2015). PPP hospitals can deliver healthcare services with social
9 performance levels at least as good as public hospitals (Ferreira and Marques, 2020). Therefore, it is
10 difficult to make a judgment about whether PPP is suitable for the hospitals even from the perspective
11 of social sustainability. A more appropriate and constraining design for the operation of the project is
12 necessary to balance public and private interests (Sharma et al., 2010, Gallouj et al., 2010).

13 *5.2 The promotion of social sustainability in hospital PPP projects*

14 Since it is impossible to justify whether PPP is suitable for the hospitals simply, it is then imperative
15 to investigate how to improve the social sustainability of hospital PPP projects. According to the case
16 study of the NBH, different stakeholder groups encountered different social sustainability issues. As
17 the main stakeholders of the hospital, employees and patients are greatly influenced by the problems.
18 A solution to these problems including five key elements was proposed, as shown in Figure 2.

19
20 [*Insert Figure 2 here*]
21

22 *5.2.1 To strengthen the supervision of the project*

23
24 As per the results in Section 4, a significant number of issues are related to supervision. Supervision
25 is essential in hospital PPP projects where accountability is crucial for the public interest represented
26 by patients and the interests of other stakeholders represented by employees (Torchia et al., 2015).
27 However, previous studies have shown that in hospital PPP projects, the transfer of service delivery
28 control increases the difficulty of project supervision (Acerete et al., 2012). Two aspects need to be
29 paid attention to, namely, supervision subjects and supervision content. It is necessary to introduce
30 multiple subjects to supervise, taking into account the complexity of hospital social sustainability
31 (Wang et al., 2019). Trade unions, the government and the public are the appropriate supervision bodies
32 for employees. The aim is to ensure that employees have access to equal employment, sound
33 employment experience, guaranteed health and safety, and the opportunity to develop their capability.
34 The government, the public and the third-party agencies are the appropriate supervision bodies for
35 patients, local community and society. The aim is to ensure that patients have access to fair and equal
36 treatment and guaranteed health and safety. Another aim is to ensure that the project has a positive
37 impact on the local community and society. From the perspective of supervision content, it is necessary
38 to strengthen the supervision of contract execution and hospital performance (McIntosh et al., 2015).
39

40 *5.2.2 To provide sufficient information*

41

1 Many issues reported in this paper are related to insufficient information. According to Hussain et al.
2 (2018), information sharing is one of the enabling factors of social sustainability in the healthcare
3 supply chain. The purpose of information sharing is to increase transparency. An organization should
4 be transparent about decisions and activities that affect society, which means that it should make its
5 policies, decisions and activities public. Information should be provided to stakeholders quickly and
6 conveniently and in a form that can be understood correctly (ISO, 2010). Specifically, recruitment
7 procedures, requirements, working conditions and so on should be provided to employees in a timely
8 manner. While information such as the nature of the hospital, the medical services provided, the cost,
9 the right to choose whether to use private insurance, its performance, and stakeholder participation and
10 communication channels should be widely known by patients, local community and society.

11 12 *5.2.3 To establish communication channels and promote stakeholder participation*

13
14 Similarly, many problems are related to the lack of communication channels and stakeholder
15 participation. Poor communication among stakeholders is a barrier to social sustainability (Hussain et
16 al., 2018, Khan, 2018), which may lead to different outcomes in similar projects and affect the project
17 performance and progress (Walker and Jones, 2012). To achieve social sustainability, communication
18 between stakeholders must be given full attention. Communication and participation can promote
19 information exchange, deepen the understanding of stakeholder's needs, win trust, and promote
20 internal and external cooperation (Fawcett et al., 2008, ISO, 2010). Therefore, it is imperative to
21 establish smooth communication channels and participation mechanism between employees and the
22 hospital, patients and the hospital, the hospital and local community, and governments etc.

23 24 *5.2.4 To improve hospital policies and procedures*

25
26 Some social sustainability problems in the NBH are related to hospital policies and procedures.
27 According to Vian et al. (2015), better policies and procedures contribute to improve staff capacity,
28 empowerment and accountability, and improve the working environment, thereby increasing the
29 demand for services and the quality of care. Furthermore, they help to improve the performance of
30 hospital PPP projects. The following aspects need to be considered. First, policies and procedures
31 related to employees include the recruitment procedure, the role and requirements of employees, the
32 operation process of the hospital, and the policies related to employee development. These policies are
33 conducive to the stability and quality improvement of the employees. Hospitals need high-quality
34 permanent staff, not low-paid casual workforce. Temporary workers cannot provide high quality
35 medical services for patients. Furthermore, in the current situation, their flow will accelerate the spread
36 of COVID-19, threatening the health and safety of the employees and patients (Cousins, 2020). Second,
37 policies and procedures related to patients ensure care continuity or smooth medical procedures.

38 39 *5.2.5 To strengthening government responsibility*

40
41 A few problems in the case study are related to government support. As a cooperation between the
42 public and private sectors, the signing of PPP contract does not mean the complete withdrawal of the
43 government from public affairs. On the contrary, the government should always be held accountable
44 for public services. This is especially true for hospital PPP projects. The satisfaction of residents'

1 medical service needs, regardless of whether they are public or private patients, is conducive to the
2 realization of well-being for individuals, local community, and society. When some project issues are
3 beyond the capacity of private investors, the government must respond proactively so that the social
4 sustainability of the project can be better realized. For example, government supports are required in
5 the case study to solve the issues of project accessibility and the availability of essential facilities.

6 **6 Conclusions and Limitations**

7 Social sustainability is becoming a fundamental goal of the hospitals. The introduction of PPP model
8 has increased people's concern about the unsocial sustainability of hospitals. The human element is
9 involved at every stage of the healthcare process. Stakeholders will not only affect the implementation
10 of the project, but also be affected by its implementation. Therefore, hospitals need to pay full attention
11 to the various social impacts brought to stakeholders in the whole lifecycle and pursue the realization
12 of their well-being. With the surge in health costs, the decline in governmental budgets, the changing
13 disease pattern and the development of medical technology, private investors are introduced into
14 hospitals. Hospital PPP projects are presumed to be able to provide better medical services at lower
15 costs and realize Value for Money. However, reality does not always support this hypothesis. Literature
16 review demonstrated that the performance of hospital PPP projects is unstable, and there are many
17 problems related to social sustainability. Some governments are distancing themselves from this model.
18 NBH is a "critical case" in this respect. The NBH, which is operated under the PPP model, has been
19 investigated by the NSW Parliament due to a series of problems after its opening. One of the
20 recommendations is that the NSW Government does not enter into any PPPs for future public hospitals.
21 The case raised concerns about whether PPP should be introduced into the hospitals and how to
22 improve the social sustainability of hospital PPP projects.

23
24 Based on stakeholder theory, this paper established a social sustainability analytical framework, which
25 includes five categories: namely employees, patients, local community, society and stakeholder
26 participation. A single case study of the NBH was conducted using the analytical framework. The
27 analysis focused on the submissions of stakeholders, transcriptions of three hearings, the final report
28 and other documents received by the Committee in the open investigation. The results of the content
29 analysis show that there are many problems related to social sustainability in the project, among which
30 employees and patients suffered the most. The advantage of NBH adopting PPP model is that it
31 provides the hospital with a co-location arrangement for both public and private services and has the
32 potential of encouraging innovation. The disadvantage lies in the conflict between the economic
33 benefits of private investors and the public interests of the project, which harms the social sustainability
34 of stakeholders. This conflict may lead to the non-Value for Money of the project.

35
36 We analyzed the social sustainability of NBH. However, it is difficult to judge whether the PPP model
37 should be introduced into the hospitals according to a single case analysis. As mentioned above, the
38 desire to achieve a win-win situation between public and private sectors in PPP projects is very strong.
39 Therefore, a more appropriate design for the operation of the project could be considered to better
40 balance the public and private interests, to realize social sustainability and Value for Money. Some
41 recommendations are provided in this paper, including strengthening the supervision of the project,

1 providing sufficient information, establishing communication channels and improving stakeholder
2 participation, improving hospital policies and procedures, and strengthening government support. The
3 findings from this paper will contribute knowledge to the social sustainability of hospital PPP projects.
4 The proposed analytical framework can be used to analyze and assess the social sustainability of such
5 projects from the perspective of stakeholders. From a practical point of view, this paper can provide
6 guidance for the stakeholders, including the government and the private sectors participating in the
7 hospital PPP projects, to realize the social sustainability, and then the success of the projects.
8 Meanwhile, this research can also provide some reference for the stakeholders, including employees,
9 patients, local community and society, when making decisions related to the project, to better realize
10 their well-being.

11
12 The limitation of this paper is that it only analyzed a single case. Moreover, the analysis only focused
13 on the report submitted by the committee, which only investigated the problems existing in the
14 operation and management of NBH rather than in its lifecycle. Hence, careful examination is required
15 when the findings are applied to other hospital PPP projects. In the future, similar projects can be
16 studied to verify the conclusions. In addition, the time span of the study is not long, which is less than
17 two years from the opening of the NBH to the writing of this paper. This project can be reviewed in
18 the future to explore the changes in social sustainability and the relationship between hospital
19 performance and social sustainability.

20
21
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27

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