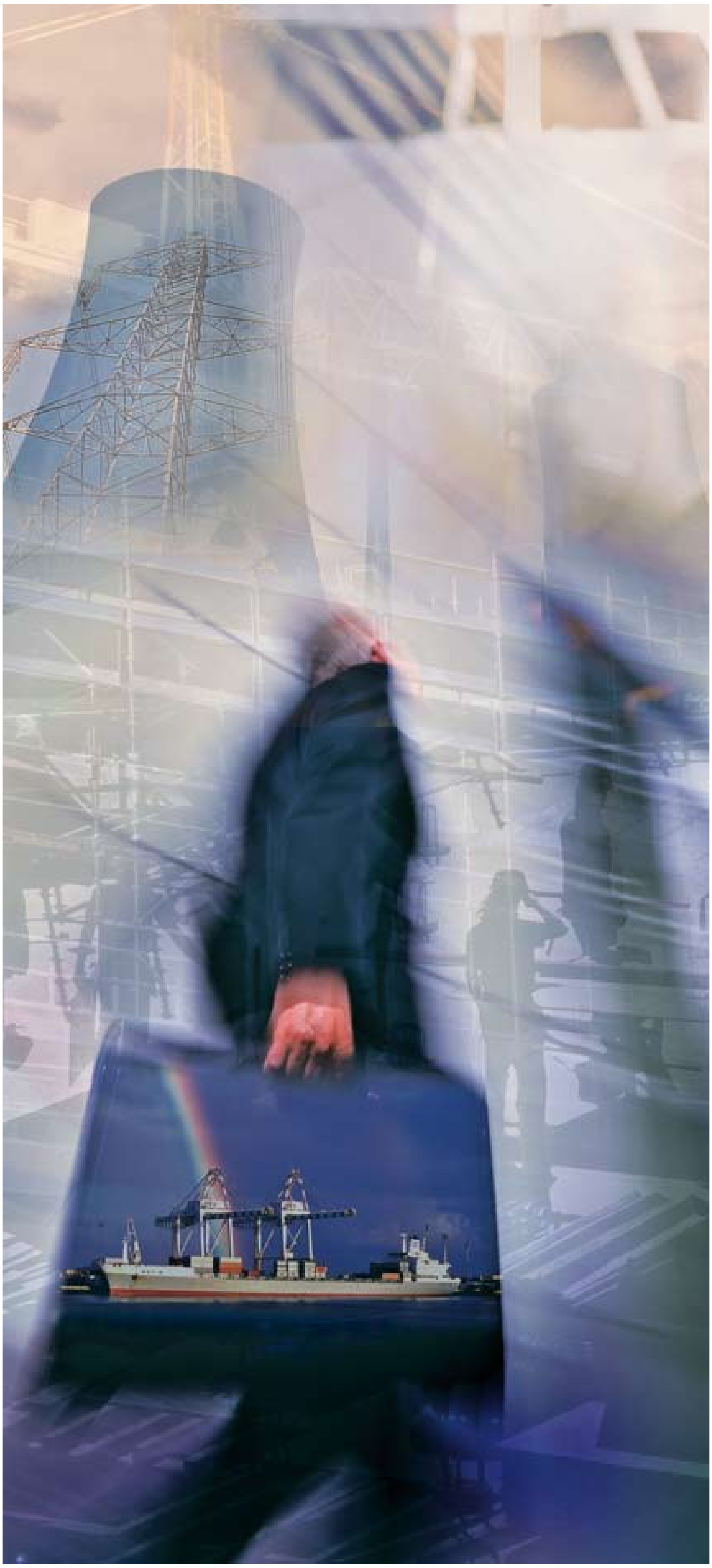

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The Economic Society of Australia warmly welcomes you to the Gold Coast, Queensland, Australia for the 37th Australian Conference of Economists.

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Is there a significant relationship between hospital resources and long waiting time for elective surgery in Australian public hospitals?

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Abstract

This paper analyses the effect of hospital resources on elective surgery waiting time in the Australian public hospitals. A quality attribute of health system responsiveness, waiting time is defined as the time that elapses between the physician's decision to admit a patient for elective surgery after clinical assessment and the date of hospital admission.

Using the National Elective Surgery Waiting Times Data Collection (NESWTDC) for the period 1998-2005, we analyse waiting times for 8 specialty surgeries in Australian public hospitals. Hospital beds, nurses and specialist surgeons are used as proxies for the endogeneity of waiting times in a multiple regression analysis.

Our results show that available hospital beds negatively influence waiting times ($b_2 = -0.0043$ in Model 1). Interestingly, the number of nurses ($b_1 = 0.0025$ in Model 1) and specialist surgeons ($b_1 = 0.0758$ in Model 2) positively influence waiting times. This suggests that physical resources such as available hospital beds could improve waiting times and therefore hospitals should be adequately funded.

JEL classification: I11

Keywords: waiting time, elective surgery, hospital beds, nurses, surgeons, Australia.

1. Introduction

Waiting time is often seen as a performance indicator (Jofre-Bonet 2000; Hurst and Siciliani 2003; Stoop, Vrangbaek and Berg 2005; Rotstein and Alter 2006) and a measure of responsiveness in health care systems (Murray and Frenk 2000; World Health Organisation 2000; Australian Institute of Health and Welfare 2000b). It is defined as the time that elapses between the physician's decision to admit a patient for elective hospital care following clinical assessment and the date of hospital admission (Martin and Smith 1995; Australian Institute of Health and Welfare 2002b; Siciliani and Hurst 2004; Australian Institute of Health and Welfare 2006a). The purpose of our study is to determine the extent limited hospital capacity could influence the waiting time for elective surgery in Australian public hospitals.

The perceived unreasonable length of waiting time is one of the most contentious issues engaging policy makers in Australia and many other OECD countries[2]. Waiting for treatment is described as a failure of the publicly supported health care systems such as Medicare[3] in Australia (DeCoster, Carriere, Peterson, Walld and MacWilliam 1999). Many studies have provided evidence of waiting times occurring across many OECD countries (Gravelle, Dusheiko and Sutton 2002; Siciliani *et al.* 2004). Gravelle *et al.* (2002) show that health systems which provide universal coverage such as the UK and Australia may impose positive waiting times on their patients; and Siciliani *et al.* (2004) prove that waiting time for non-urgent procedures such as hip and knee replacement or

[2] Not all countries necessarily report waiting times but those who do are facing major challenges in their health care systems. These countries include Australia, Canada, Denmark, Finland, Ireland, Netherlands, New Zealand, Norway, Spain, Sweden and the United Kingdom.

[3] Australia has universal social insurance in the form of Medicare since 1984 and offers a range of health services to Australians, including universal access to doctor of choice for out-of-hospital care, free public hospital care, and subsidised pharmaceuticals.

cataract surgery are longer than waiting time for more urgent surgery. Further discussion on the comparison of the velocity of healthcare delivery between urgent and non-urgent surgery can be found in Carroll, Soderfeldt and Malmberg (1995), Gravelle, Smith and Xavier (2000) and Hurst *et al.* (2003).

Waiting time occurs as a result of increasing demand for a limited resource with multiple priority levels (Patrick and Puterman 2007). Waiting times vary according to two factors: the first is the patient's covariates such as residence, demographic characteristics and health status (Siciliani *et al.* 2004) and the second is the indicator procedure[4] (see Figure 1). For instance, Gillett and Katauskas (1993) found that Victoria and South Australia have higher mean waiting times for general surgery, orthopaedic surgery and ear, nose and throat surgery, but plastic surgery was in high demand in Victoria only, and therefore longer waiting time occurred there.

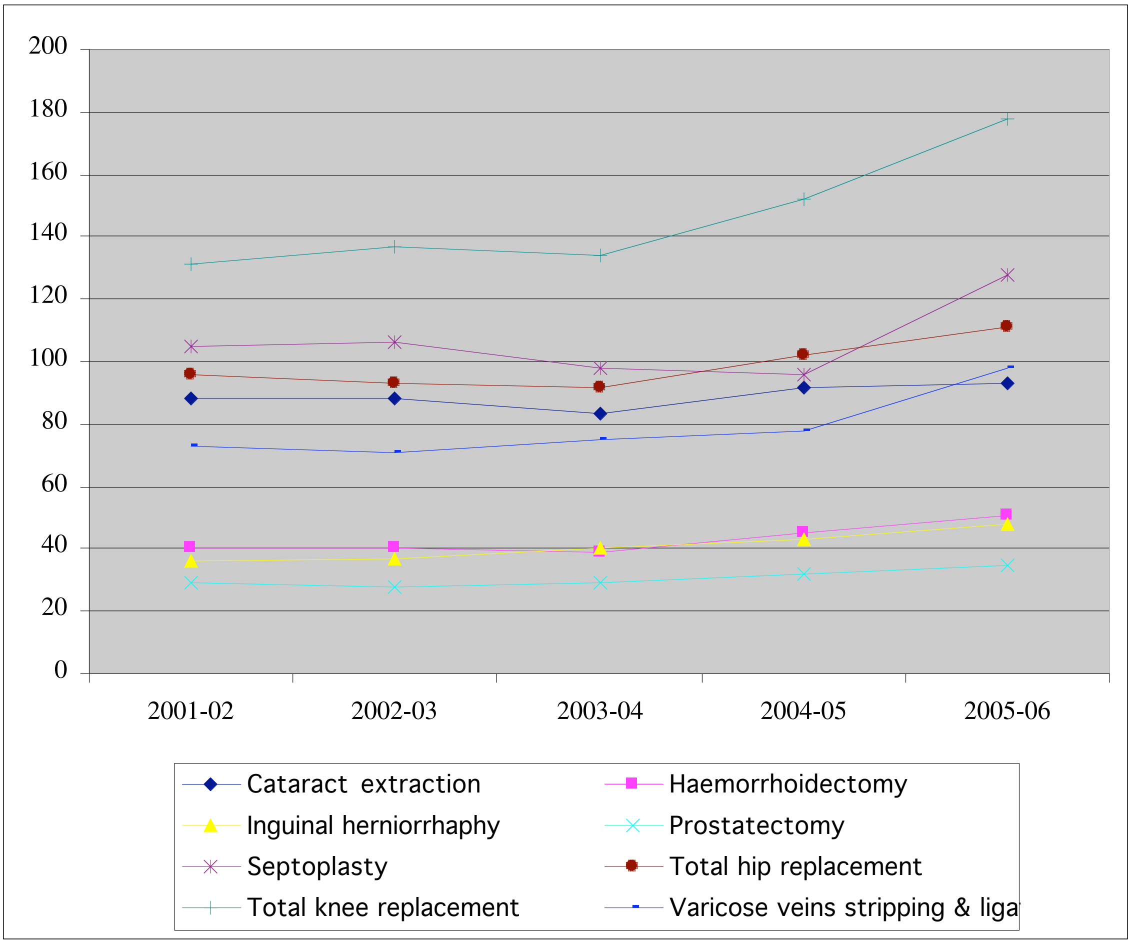
Australian patients who demand elective surgery cannot present themselves directly to a surgery specialist. Rather, they must be referred by a general practitioner who acts as a gatekeeper of the health care system. After visiting the hospital surgeon, the patient goes on the waiting list for elective surgery[5] in the public or private hospitals (Australian Institute of Health and Welfare 2002b; Department of Health and Ageing 2006). The patient can decide either to wait for public-funded treatment or to seek an

[4] These include total knee and hip replacement, cataract extraction, varicose veins.

[5] In Australia there are three categories for patients waiting for elective surgery: Category 1 covers urgent cases which are expected to be admitted within 30 days, Category 2 is for semi-urgent cases which should be admitted within 90 days and Category 3 is for non-urgent cases to be admitted within 12 months. These categories define the order of clinical emergency. Therefore if a patient waits beyond the 'desirable' waiting period, it is classified as an 'extended wait'.

alternative such as using private health insurance[6] to jump the queue and receive surgery sooner (Jofre-Bonet 2000).

Figure 1 Days waited at 50th percentile by patients admitted from waiting list for elective surgery in Australia, 2000-06



Sources: Australian Institute of Health and Welfare (2002a; 2002b; 2003a; 2004a; 2005a; 2006a; 2007)

[6] Private health insurance in Australia normally covers 2 areas: hospitalization and ancillary medical services. The former provides cover for private patients in both public and private hospitals; the latter covers those service not covered by Medicare (e.g. optical, dental and physiotherapy and alternative procedures such as acupuncture and osteopathy).

Long waiting times may produce worse health outcomes[7] (Gillett *et al*. 1993) and the main clinical risks include deterioration of the patient's condition, death or reduced chances of effective recovery (Harrison and New 2000; Jofre-Bonet 2000; Oudhoff , Timmermans, Bijnen and van der Wal 2004; Silva and Serra 2007). Loss of productivity and delayed rehabilitation are also consequences of a long waiting time. From the patient viewpoint, long waiting time results in not only considerable personal stress but also financial hardship from income loss (Gillett *et al*. 1993; Silva *et al*. 2007). Family anxiety, utility loss (Iversen 1993; Martin and Smith 1999; Cullis and Jones 2000), extra costs associated with administration (e.g. bookkeeping, enquiries and complaints) and complicated medical conditions (Iversen 1993) are the other consequences of long waiting times.

A search of the *Medline* database between 1998 and 2005 has generated 1197 citations for waiting time, 327 citations for hospital beds, 34,641 for nurses and 23,619 for surgeons. The relationship between waiting time and the aforesaid hospital resources has been less closely studied generating a total of 88 citations (one citation for waiting time and hospital beds, 45 for waiting time and nurses and 42 with surgeons). Of the 88 citations, only 3 focused on elective surgery but they were about efficiency and accuracy of waiting time information services.

Several studies have attempted to identify the factors which significantly influence waiting times in public health facilities. The factors include doctors supply (Martin *et al.*

[7] Martin *et al.* (1999) developed a utility function which describes the health gain obtained when admitted for elective surgery. The utility function can be written as follow:

$$U(V, g, t, P, C) = Ve^{-gt} - C - P$$

where V is the health gain the patient receives which is depressed by a decay factor if the treatment is delayed; C is a fixed cost for receiving treatment and P an additional cost if the patient decides to seek private care. Hence, the longer the wait, the lower the health gain is.

1999), health care financing (Pope 1992), expansion of private sector (Carroll *et al.* 1995; van Ackere and Smith 1999; Jofre-Bonet 2000; Gravelle *et al.* 2002) and health care rationing (Pierson, Milstone, Loyd, Lewis, Pinson and Ely 2000). In this paper, we are interested in the possible association between public hospitals' resources (e.g. physical and human resources) and waiting time for elective surgery in Australia. Our study provides empirical evidence to show how hospital capacity resources can affect waiting times for elective surgery in Australian public hospitals. We conduct an econometric analysis to test the hypotheses that public beds and hospital staffing (number of surgeons and nurses) influence the waiting time in hospital admissions to publicly-funded elective surgery. Following the works of Mojon-Azzi and Mojon[8] (2007) and Rachmiel, Trope, Chipman and Buys[9] (2007), we have constructed four models to examine the possible causes of long waiting times.

This paper is organized as follows. The method section, Section 2, provides a descriptive analysis of the dataset, characterization of the measures for waiting times and explanation of the proxies used for hospital resources. In Section 3 we construct four theoretical models relating the velocity of healthcare delivery with hospital capacity resources. Section 4 contains the results of our econometric analysis. Finally, Section 5 is the discussion of the results, and conclusions.

[8] Using data from the SHARE survey, Mojon-Azzi *et al.* (2007) use multiple linear regressions to assess the influence of four health indicators, including acute bed density, on waiting times in ten European countries. Their study shows that waiting times for cataract surgery is not influenced by acute bed density.

[9] Rachmiel *et al.* (2007) study the relationship between the number of ophthalmologists and cataract surgery rates in Ontario, Canada, between 1992 and 2004. Their results show a statistically negative correlation with cataract surgery rates, implying that less ophthalmologists per million population lead to more surgeries performed.

2. Method

In this section, we explain the two databases used. Then, we describe the set of waiting time variables used in our analysis, and the proxies for hospital capacity resources as possible explanatory variables.

2.1 Main database

Our main database is the National Elective Surgery Waiting Times Data Collection[10] (NESWTDC) for the period 1998-2005. These data are published in the annual report of Australian hospital statistics by the Australian Institute of Health and Welfare. On average, 194 public hospitals reported annual data on waiting times for elective surgery.

The annual report contains information about:

- The public hospitals[11]: the main groups are Principal referral and Specialist women's and children's hospitals and small acute hospitals.
- Health of admitted patients: principal diagnosis, age, gender, status, area of residence and place of birth.
- Waiting times for elective surgery in public hospitals[12]: methods of collecting data, comparison between states, distribution of waiting times according to specialty of surgeon and indicator procedure, and additions and removals from waiting lists.

[10] This database is a collection of patients' records on elective surgery waiting list and removals from waiting lists. Data are solely collected from public acute care hospitals.

[11] In the year 2005-06, there were 755 public hospitals with 736 being acute public hospitals. Information on expenditure, revenue, available beds, casemix data and separations are provided.

[12] On average, 194 hospitals reported data on elective surgery waiting times for the period 2001-05.

While all this information is valuable, it does not explicitly include any labour force variable. The annual report also lacks data on the number of specialist surgeons in each state.

2.2 Supplementary database

To overcome the annual report data deficiency on labour force, we use data published by the Royal Australasian College of Surgeons which contains, among other data, the number of specialist surgeons per state. We use data for the period 1998-2005. For comparison purposes, we use the Labour Force report published annually by the Australian Institute of Health and Welfare.

2.3 Variables of waiting time

Three indices of waiting times are used in this study:

- *The number of days waited by patients admitted from waiting lists at the 50th* provides 'the number of days within which 50% of patients were admitted'.
- *The number of days waited by patients admitted from waiting lists at the 90th* represents 'the number of days within which 90% of patients were admitted' (Australian Institute of Health and Welfare 2002b: 2).
- *The proportion of patients admitted from waiting lists who waited more than 365 days* is the third index.

2.4 Potential explanatory variables

Proxies for physical and human resources are used as instruments for the endogeneity of waiting times (see Table 1).

- *The number of available public beds* is a key data item as it is a useful practical indicator of the effective capacity of public hospitals. It is expected that an increase in the number of available inpatient beds will facilitate health care utilization, reducing waiting lists. Data for this indicator is released annually by the Australian Institute of Health and Welfare for each state. According to the Department of Health and Ageing, the number of available beds in the public sector has continuously decreased since the early 1990s, while the demand for care in the public sector has persistently increased. Therefore, this variable is expected to be highly significant in our modelling.
- *The total number of employed medical or surgical clinical nurses* is available in the annual report of Australian hospitals statistics. The total value includes registered nurses and enrolled nurses per state. It is likely that more employed medical or surgical clinical nurses would reduce waiting time for elective surgery in public hospitals.
- *The number of specialty surgeons* is also a critical factor and is expected to hold a negative relationship with waiting time for elective surgery. This labour force indicator is provided by the AIHW annually and the Royal Australasian College of Surgeons (Australian Institute of Health and Welfare 2000a; 2003b; 2003c; 2004b; Australian Medical Workforce Advisory Committee 2005; 2005b; Australian Institute of Health and Welfare 2006b; Royal Australasian College of Surgeons 2007a; 2007b).

Table 1 Variables considered in this study

Variables	*Description*
T	Waiting time
BEDS_PUB	Number of beds available in public hospitals
NURSES	Total nurses enrolled
T1	Waiting time at 50^{th} percentile
T2	Waiting time at 90^{th} percentile
T3	Proportion of admitted patients who waited more than 365 days
SURGEON	Number of speciality surgeons
NSW	Dummy variable =1 for NSW
VIC	Dummy variable =1 for VIC
QLD	Dummy variable =1 for QLD
WA	Dummy variable=1 for WA

3. Econometric modelling and analysis of hospital resources and waiting time

For this analysis we firstly created two different balanced panels of data. The first dataset comprises data collected from 5 states (e.g. NSW, VIC, QLD, WA and SA) over 8 years from 1998 to 2005. The second panel comprises 40 cross-sections (eight specialty surgeries across 5 States) over 6 years from 2000 to 2005. The eight specialty surgeries include cardio-thoracic, ear nose & throat surgery (ENT), general surgery, neurosurgery, orthopaedic surgery, plastic surgery, urology and vascular surgery. These specialties of surgeon were selected because they were made available by the Australian Institute of Health and Welfare and statistics on each specialty were available. Comparisons were therefore possible.

3.1 Assumptions

A total of four models were constructed to test our hypotheses: one model was derived using the first dataset and three models from the second dataset. In these models, we assume the error term has the following properties (Greene 2003):

A.1 $E(\varepsilon_{it}) = 0$

A.2 $E(\varepsilon_{it}^2) = \sigma_i^2$

A.3 $E(\varepsilon_{it}\varepsilon_{jt}) = \sigma_{ij}$ for i≠j

A.4 $\varepsilon_{it} = \rho_i \varepsilon_{i,t-1} + u_{it}$

A.5 $E(u_{it}) = 0$

A.6 $E(u_{it}^2) = \phi_{it}$

A.7 $E(u_{it}u_{jt}) = \phi_{ij}$ for i≠j

A.8 $E(u_{it}u_{js}) = 0$ for t≠s

A.9 $E(\varepsilon_{i,t-1}u_{jt}) = 0$ for all i, j

3.2 Modelling

We computed the Haussman's specification to test the appropriateness of each model using the following hypotheses (Verbeek 2004: 352):

$$H_0 : E(x_{kit}u_i) = 0$$

$$H_1 : not\ H_0$$

Using the p-value approach, we reject H_0 if the probability value of the Haussman test is less than the chosen significance level of 5%, and conclude that the assumption of a random effects model does not hold. Thus the appropriate model is a fixed effects model.

Conversely, if we fail to reject H_0 then the assumption of a random effects model holds. This is the model we choose to make inferences concerning the population. Using the first dataset (sample size of 40 observations over the 1998-2005 period), we developed Model 1below.

Model 1 – Random effects model for nurses and public beds

$$T_{it} = \beta_0 + \beta_1 BEDS\_PUB_{it} + \beta_2 NURSES_{it} \quad (1)$$

Using the second panel of data (sample size of 240 observations over the 2000-05 period), we develop **Models 2-4** relating measures of waiting times with the supply level of surgeons in public hospitals.

Model 2 - Random effects model for T1 and number of surgeons

$$T1_{it} = \beta_0 + \beta_1 SURGEON_{it} + \beta_2 NSW_{it} + \beta_3 VIC_{it} + \beta_4 QLD_{it} + \beta_5 WA_{it} \quad (2)$$

Model 3 - Random effects model for T2 and number of surgeons

$$T2_{it} = \beta_0 + \beta_1 SURGEON_{it} + \beta_2 NSW_{it} + \beta_3 VIC_{it} + \beta_4 QLD_{it} + \beta_5 WA_{it} \quad (3)$$

Model 4 - Random effects model for T3 and number of surgeons

$$T3_{it} = \beta_0 + \beta_1 SURGEON_{it} + \beta_2 NSW_{it} + \beta_3 VIC_{it} + \beta_4 QLD_{it} + \beta_5 WA_{it} \quad (4)$$

4. Results

Each model aims at identifying a potential relationship between the hospital resources and an indicator of waiting time for elective care. Estimation results for the four models are presented in Table 2.

Table 2 Estimation results for Models 1-4 (standard errors in parentheses)

Variable	*Model 1*	*Model 2*	*Model 3*	*Model 4*
Nurses	0.0025*			
	(0.0009)			
Public beds	-0.0043*			
	(0.0015)			
Surgeon		0.0758*	0.2995*	0.0092
		(0.0266)	(0.1475)	(0.0068)
NSW		-9.7603	-26.9886	-0.6846
		(7.8947)	(48.6133)	(1.6009)
VIC		-10.4710	3.8264	0.2631
		(7.4329)	(44.4298)	(1.4988)
QLD		-14.6110*	-61.1021**	-1.2128
		(6.4685)	(35.0192)	(1.1919)
WA		1.4860	24.4343	1.0957
		(9.5724)	(52.2307)	(1.7309)
DW	1.3525	1.0433	0.9525	1.0418

* Statistically significant at 5%
** Statistically significant at 10%

Model 1 – Random effects model for nurses and public beds

$$T_{it} = \beta_0 + \beta_1 BEDS\_PUB_{it} + \beta_2 NURSES_{it} \quad (1)$$

In Model 1, the coefficients are statistically significant. The number of enrolled nurses and public beds significantly influence waiting time for elective care. More interestingly, the values of β_1 and β_2 show that employing more nurses would lengthen velocity of elective care in public hospitals while increasing the supply of public beds would reduce median waiting times. The errors in this model are serially correlated as $DW=1.353 < d_L$.

Model 2 - Random effects model for T1 and number of surgeons

$$T1_{it} = \beta_0 + \beta_1 SURGEON_{it} + \beta_2 NSW_{it} + \beta_3 VIC_{it} + \beta_4 QLD_{it} + \beta_5 WA_{it} \quad (2)$$

In Model 2, the explanatory variable SURGEON holds a significant relationship with median waiting time for elective care at 5% significance. While the value of β_1 is much smaller, it still implies a positive relation where more surgeons would result in longer waiting times. Again, we would reject H_0: $\rho = 0$ and conclude that the errors are serially correlated.

Model 3 - Random effects model for T2 and number of surgeons

$$T2_{it} = \beta_0 + \beta_1 SURGEON_{it} + \beta_2 NSW_{it} + \beta_3 VIC_{it} + \beta_4 QLD_{it} + \beta_5 WA_{it} \quad (3)$$

In Model 3, there is a positive relationship between the labour supply and the waiting time at 90^{th} percentile at 5% level of significance. Again this shows that employing more specialty surgeons would lengthen waiting periods. Like the previous models, the errors are serially correlated.

Model 4 - Random effects model for T3 and number of surgeons

$$T3_{it} = \beta_0 + \beta_1 SURGEON_{it} + \beta_2 NSW_{it} + \beta_3 VIC_{it} + \beta_4 QLD_{it} + \beta_5 WA_{it} \quad (4)$$

T3 represents the proportion of patients admitted who waited more than a year. Unlike the previous models, the surgery workforce does not seem to significantly affect the dependent variable. The errors are still serially correlated.

5. Discussion and conclusions

Our results show that increasing the number of available public beds can improve elective surgery waiting times ($b_2 = -0.0043$ in Model 1). Conversely, the number of nurses ($b_1 = 0.0025$ in Model 1) and specialist surgeons ($b_1 = 0.0758$ in Model 2) has a positive relationship with waiting time for elective surgery in public hospitals.

5.1 Limitations of our databases

The modelling and econometric analysis in this study were performed within some limitations. Firstly, while the dataset for the models was carefully built and balanced, the median waiting times for the year 1998-99 are significantly different from the other years and could potentially be outliers.

Secondly, only five States in Australia were studied, but for the present this was the best possible representative sample for the Australian population. It was not possible to include more States (e.g. more cross-sections) to increase the panel of data as TAS (for Tasmania) and ACT had many missing data. Longer time series would have been ideal but disparities among the variables and the lack of consistent procedures for data collection prevented the extension of analysis to earlier years. As a result, the timeframe was restricted to 1998-2005.

5.2 Physical resources: hospital beds as a proxy

We analysed waiting times as a function of public beds. Our estimation results show that available beds in public hospitals are a significant exogenous factor for elective surgery waiting times. Most of the overseas research on waiting times was conducted in the United Kingdom. Our results for Australia support that of Martin *et al.* (1999) who found that the provision of NHS beds is significant in the supply of admissions for elective surgery. They think that a long-run increase in public beds is necessary to cut long-run waiting time, given a constant level of demand; but a short run increase in the supply level of public beds will not immediately improve waiting time.

However, there are studies that find no relationship between available public beds and the velocity of health care delivery (Cullis *et al*. 2000) because there is no simple relationship between resource provision and waiting times. While there is empirical evidence of a fall in waiting times when more resources are allocated, Yates (2001) argues that there is no multivariate analysis that currently supports this. However, he suggests that a more sophisticated analysis of surgeon provision and waiting times could enlighten the understanding of long waiting times.

5.3 Human resources

Drawing from the Yates' argument and work conducted by Rachmiel *et al*. (2007), we performed an analysis of the supply of surgeons in Australian public hospitals. Our econometric results show both nurses and surgeons are positively associated with waiting times.

Enrolled nurses: Our model estimates show that more nurses tend to lengthen waiting times for elective care but the effect is really small (b_1 = 0.0025, see Model 1). Our result is different from Benjamin's (2003) in a study of nurses staffing in Papua New Guinea. He found a negative relationship between the number of nurses and waiting times, implying that the low supply of nurses would explain the unreasonable waiting time in urban clinics.

Specialist surgeons: Our results relating to the supply of surgeons might suggest that a rise in the number of surgeons is reflected in longer waiting times which perhaps indirectly imply an effect of supplier-induced demand (SID). Indeed, Cullis *et al.* (2000)

remind us that information asymmetry could give doctors the opportunity to stimulate demand.

Empirical estimation of the SID hypothesis is not a trivial undertaking and a proper specification of an adequate model is yet to emerge. Auster and Oaxaca (1981) tested the SID hypothesis and found that when there was excess demand for health care,

> Physicians or hospitals may shift the demand for health services in such a way to increase the demand for their own services (Auster *et al.* 1981: 328).

Investigating the 1990 NHS reforms, Pope (1992) also ascertained that an increase in resources may simply lead to longer average waiting times. However, Cromwell and Mitchell (1986) had used a panel of data over the 1969-76 period and found that most of the inducement effect is reflected in fees rather than operations when demand for health care is inelastic. Sorensen and Grytten (1999) also found no evidence of SID. Rather, they argued that physicians would normally not use asymmetrical information to generate more treatment, and individual health conditions were the major determinants of physician visits. The SID hypothesis remains controversial.

The positive relationship between surgeons supply and longer waiting times does not necessarily imply a causal relationship. Even if we interpret our results on surgeon supply as seemingly pointing to SID, it would be foolhardy to propose a policy that would restrict the number of specialist surgeons because a certain specialty and/or region may be in shortage while another may be in surplus.

5.4 Concluding remarks

In order to reduce the waiting time of publicly funded elective surgery, many countries have adopted a variety of policy measures. These include using capacity in the private sector[13] (Iversen 1997; Hurst *et al.* 2003), promoting day-surgery[14] (Hurst *et al.* 2003), increasing choices for patients[15] (Hurst *et al.* 2003; Siciliani 2005) and adopting maximum waiting-time guarantees (Hurst *et al.* 2003; Dawson, Gravelle, Jacobs, Martin and Smith 2005).

Perhaps some of the policies may not be effective. Their benefits may not be fully realised without complementary measures such as adjusting the funding level and allocation of resources according to the level of demand. The results of this study imply that a good policy option is to provide long run capital investment in the physical resources for elective surgery in public hospitals to improve waiting time in the long run.

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[13] There is a view that promoting private health insurance does not necessarily help in reducing waiting period. According to Iversen (1997), if the demand for medical care is elastic, waiting time for publicly funded elective surgery could increase further if a private sector develops.

[14] Advanced medical technologies have allowed for more effective and shorter surgeries. The National Health System in England introduced 'diagnostic and treatment centres' which would only treat day-cases in order to reduce elective surgery waiting times. Evidence on the impact of this policy initiative is yet to come. However, if proved to be successful, this could alleviate the public hospitals.

[15] It was found that waiting times and the degree of substitutability among hospitals are positively related. The more choices people have of where they obtain surgery, the longer the waiting times are. Studies show that if people go to a hospital which exhibits lower waiting tie, this hospital will eventually result in more patients, which in turn would increase the waiting time for elective surgery. Hence, increased supply of medical services would eventually become saturated and therefore waiting time is just shifted from a hospital to another.

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